

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



S-METOLACHLOR GROUP 15 HERBICIDE

METRIBUZIN GROUP 5 HERBICIDE

# Tyrant<sup>®</sup>

## HERBICIDE

*For control of certain grasses and broadleaf weeds in potatoes, soybeans, and sugarcane.*

ACTIVE INGREDIENTS:	% by wt.
S-metolachlor*:	58.2%
Metribuzin**:	13.8%
OTHER INGREDIENTS***:	28.0%
<b>TOTAL:</b>	<b>100.0%</b>

\*CAS No. 87392-12-9

\*\*CAS No. 21087-64-9

\*\*\*Contains petroleum distillates.

Tyrant<sup>®</sup> Herbicide is formulated as an Emulsifiable Concentrate (EC) containing 5.25 lb of S-metolachlor and 1.25 lb of metribuzin per gallon.

### KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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).

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1162-5905

SCPSR-HEL-1162C-L1F 0623

EPA Est. 5905-IA-01

4185637 AD 062223HAE

NET CONTENTS: 2.5 Gallons (9.46 L)

Manufactured For

**HELENA AGRI-ENTERPRISES, LLC**

COLLIERVILLE, TENNESSEE 38017 U.S.A. • (901) 761-0050

## NOTES

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## 1.0 FIRST AID

FIRST AID	
<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 eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• <b>DO NOT</b> induce vomiting unless told to by a poison control center or doctor.</li><li>• <b>DO NOT</b> give any liquid to the person.</li><li>• <b>DO NOT</b> 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 inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center or a doctor for further treatment advice.</li></ul>
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
<b>HOTLINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call <b>CHEMTREC</b> at <b>1-800-424-9300</b>	

## PRECAUTIONARY STATEMENTS

### 2.0 PRECAUTIONARY STATEMENTS

#### 2.1 Hazards to Humans and Domestic Animals

##### WARNING/AVISO

Causes substantial, but temporary eye injury. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. **DO NOT** get in eyes or on clothing. Avoid contact with skin. 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.

#### 2.2 Personal Protective Equipment (PPE)

**All applicators and other handlers must wear:**

- Protective eyewear
- Coveralls over a short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or Viton™  $\geq$  14 mils
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when mixing/loading and cleaning equipment

#### 2.3 User Safety Requirements

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.

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## 2.4 Engineering Controls

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 170.607(d-f)), the handler PPE requirements may be reduced or modified as specified in the WPS.

## 2.5 User Safety Recommendations

### User Safety Recommendations

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## 2.6 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 washwater or rinsate.

### 2.6.1 GROUNDWATER ADVISORY

S-metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface and where the soils are very permeable, *i.e.*, well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

### 2.6.2 SURFACE WATER ADVISORY

S-metolachlor may impact surface water quality due to runoff of rain water or through ground spray drift. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. 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 loading of S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### 2.6.3 NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## Reporting Ecological Incidents

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-901-761-0050.

### 2.6.4 MIXING/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.

Use check-valves or anti-siphoning devices on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft 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 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and 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.

## 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.

### Endangered Species Protection Requirements

It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product.

### 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 (WPS).

**DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 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:

- 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, or Viton ≥ 14 mils
- Chemical-resistant footwear
- Chemical-resistant headgear for overhead exposure

## 3.0 PRODUCT INFORMATION

Tyrant Herbicide is a selective herbicide that can be applied for control of annual grasses and the broadleaf weeds listed on this label in potatoes, soybeans, and sugarcane.

Tyrant Herbicide may be used for preemergence weed control prior to or after potato or sugarcane emergence.

Tyrant Herbicide may be applied preplant surface, preplant incorporated, preemergence, and as a sequential application to provide residual control of weeds listed on this label. Preplant incorporated applications may increase the risk crop injury. It can also be applied as a postemergence directed application in specific geographical regions as specified on this label.

### 3.1 Weed Resistance Management

Tyrant Herbicide contains the active ingredients S-metolachlor which inhibits the formation of very long chain fatty acids (VLCFA, Site of Action Group 15) and metribuzin which inhibits the photosynthetic pathway of photosystem II (PSII, Site of Action Group 5). Some naturally-occurring weed populations have been identified as resistant to Group 5 and 15 herbicides. Selection of resistant biotypes, through repeated use of these herbicides or lower than labeled use rates in the same field, may result in weed control failures. A resistant biotype may be present where poor performance cannot be attributed to adverse environmental conditions or improper application methods.

### 3.1.1 PRINCIPLES OF HERBICIDE RESISTANT WEED MANAGEMENT

#### Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

#### Utilize non-herbicidal practices to add diversity

- Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

#### Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

#### Difficult to control weeds

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

#### DO NOT overuse the technology

- **DO NOT** use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for difficult to control weeds.

#### Scout and inspect fields following application

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.
- Suspected herbicide resistant weeds may be identified by these indicators
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.
- Report non-performance of this product to your HELENA retailer, HELENA representative, or call 1-901-761-0050.
- If resistance is suspected, ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

#### Prevent weed escapes before, during, and after harvest

- **DO NOT** allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

#### Resistant Weeds

Contact your local HELENA representative, retailer, crop advisor or extension agent to determine if weeds resistant to modes of action contained in this product are present in your area. **DO NOT** assume that each listed weed is being controlled by multiple modes of action. Pre-mixes 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. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with an additional different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

## 4.0 APPLICATION DIRECTIONS

### 4.1 Methods of Application

Applications with Tyrant Herbicide alone or in tank mixtures are permitted by ground, by air, and by chemigation. Preplant surface, preplant incorporated, preemergence, postemergence, and sequential applications are allowed as specified in **Section 8.0**. For band-application, refer to **Section 4.1.1** to calculate the amount of herbicide needed. Refer to **Section 4.6** for details of application by chemigation.

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.

#### 4.1.1 BAND APPLICATION

Calculate the amount of herbicide needed for band treatment by the following formula:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

## 4.2 Application Equipment

- Spray equipment configuration should be arranged to provide accurate and uniform coverage of the target area and minimize potential for spray drift.
- To ensure accuracy, calibrate sprayer before each use.
- For information on spray equipment and calibration, consult spray equipment manufacturers and/or state recommendations.
- All ground, aerial, and chemigation application equipment must be properly maintained and calibrated using appropriate carriers.
- For aerial applications, use low-drift nozzles at a maximum pressure of 40 psi.
- For ground applications, use sprayers that provide accurate and uniform application. Calibrate the sprayer before use at the beginning of the season.
- For ground applications with tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh.
- For preplant incorporated application, use an implement such as a disk, field cultivator, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation.

## 4.3 Application Volume and Spray Coverage

- For ground application, apply alone or in tank mixtures in a minimum of 10 gal/A of spray mixture unless otherwise specified.
- For aerial application, apply alone or in tank mixtures in a minimum total volume of 2 gal/A of spray mixture.

## 4.4 Mixing Directions

- Thoroughly clean spray equipment before using this product. Dispose of the cleaning solution in a responsible manner.
- Prepare no more spray mixture than is needed for the immediate operation.
- Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain agitation throughout the mixing process.
- Keep product container tightly closed when not in use.
- **DO NOT** let the spray mixture stand overnight in the spray tank.
- Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

### 4.4.1 TYRANT HERBICIDE ALONE

1. Add  $\frac{1}{3}$  of the required amount of water or fluid fertilizer to the spray or mixing tank.
2. With the agitator running, add Tyrant Herbicide into the spray tank.
3. Continue agitation while adding the remainder of the water or fluid fertilizer.
4. Begin application of the spray solution after the Tyrant Herbicide has completely dispersed in the water or fluid fertilizer.
5. Maintain agitation until all the mixture has been applied.

### 4.4.2 TANK-MIX PRECAUTIONS

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. User must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- If not known, check compatibility with other pesticides and/or liquid fertilizers before mixing in spray tank using a jar test, as described in **Section 4.4.3**.
- **NOTE:** Nitrogen solutions or complete fluid 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 suspensions of fertilizer and pesticides.

#### 4.4.3 TANK-MIX COMPATIBILITY

- Conduct a jar test using a 1 pt to 1 qt container with lid by adding water or other intended carrier such a liquid fertilizer to the jar.
- Next, add the appropriate amount of pesticide(s) or tank-mix partner(s) in their relative proportions based on recommended label rates. Add tank-mix components separately in the order described below. After each addition, shake or stir gently to thoroughly mix.
  1. Products packaged in water-soluble packaging
  2. Wettable powders
  3. Wettable granules (dry flowables)
  4. Liquid flowables
  5. Liquids such as Tyrant Herbicide
  6. Emulsifiable concentrates
- After all ingredients have been added, put the lid on the jar, tighten and invert the jar 10 times to mix.
- After mixing, let the mixture stand 15–30 minutes and then examine for signs of incompatibility such as obvious separation, large flakes, precipitates, gels, or heavy oily film on the jar.
- If the mixture remains mixed or can be remixed readily, it is physically compatible and can be used.
- If the mixture is incompatible, repeat the test using a compatibility agent at the recommended rate. Or, if applicable, slurry dry formulations in water before adding to the jar. If incompatibility is still observed after following these procedures, **DO NOT** use the mixture.
- After compatibility testing is complete, dispose of any pesticide wastes in accordance with the storage and disposal section, **Section 9.0**, of this label.

#### 4.4.4 TYRANT HERBICIDE IN TANK MIXTURES

1. Add  $\frac{1}{3}$  of the required amount of water or fluid fertilizer to the mix tank.
2. Start the agitator running before adding any tank mix partners.
3. Check the tank mix partner label for any specific instructions pertaining to the tank-mix partner.
4. Add all products in water-soluble packaging to the tank first and mix with plain water before any other tank mix partner, including Tyrant Herbicide. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank. Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.
5. In general, tank mix partners should be added in this order:
  1. Products packaged in water-soluble packaging
  2. Wettable powders
  3. Wettable granules (dry flowables)
  4. Liquid flowables
  5. Liquids such as Tyrant Herbicide
  6. Emulsifiable concentrates
6. Always allow each tank mix partner to become fully dispersed before adding the next product.
7. Provide sufficient agitation while adding the remainder of the water.
8. Maintain agitation until all the mixture has been applied.

### 4.5 Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Tyrant Herbicide alone or selected Tyrant Herbicide tank mixtures which are registered to control weeds in crops on the Tyrant Herbicide label and are not prohibited from use on dry bulk granular fertilizers.

When applying Tyrant Herbicide or Tyrant Herbicide mixtures with dry bulk granular fertilizers, follow all directions for use, restrictions, and precautions on the respective product labels, regarding target crops, rates per acre, soil texture, application methods (including timing of application), and rotational crops.

Complying with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

#### 4.5.1 PREPARATION OF HERBICIDE/FERTILIZER MIXTURES

- Use any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender.
- Place the nozzles used to spray Tyrant Herbicide and Tyrant Herbicide mixtures onto the fertilizer in such a way as to provide uniform spray coverage.
- Use care to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.
- If the herbicide/fertilizer mixture is too wet, add a highly absorptive material such as Agsorb® FG or Celatom® MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture.
- Add absorptive materials only after the herbicide has been thoroughly blended into the fertilizer mixture.

- Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer materials being used.
- Generally, less than 2% by weight of absorptive material will be needed.
- Avoid using more than 5% absorptive material by weight.
- Calculate amounts of Tyrant Herbicide to be used by the following formula:

$$\frac{2,000}{\text{lb of fertilizer per acre}} \times \frac{\text{pt of Tyrant Herbicide}}{\text{per acre}} = \frac{\text{pt of Tyrant Herbicide}}{\text{per ton of fertilizer}}$$

#### 4.5.2 PNEUMATIC (COMPRESSED AIR) APPLICATION

- High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates.
- To minimize buildup, premix Tyrant Herbicide with Exxon Aromatic 200 at a rate of 2.0-2.5 pt/gal of Tyrant Herbicide.
- Aromatic 200 is a noncombustible/nonflammable petroleum product.
- Aromatic 200 may be used in either a fertilizer blender or through direct injection systems.
- Do not use drying agents when using Aromatic 200.

#### 4.5.3 PRECAUTIONS

- Use mixtures of Tyrant Herbicide and Aromatic 200 on dry fertilizer only.
- Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications.
  - When impregnating Tyrant Herbicide in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200.
  - The use of Agsorb FG or another drying agent of 6/30 particle size is recommended.
- When possible, avoid drying agents when using on-board impregnation equipment.

#### TO AVOID POTENTIAL FOR EXPLOSION:

- **DO NOT** impregnate Tyrant Herbicide on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- **DO NOT** combine Tyrant Herbicide with a single superphosphate (1-20-0) or triple superphosphate (0-46-0).
- **DO NOT** use Tyrant Herbicide on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

#### 4.5.4 APPLICATION INSTRUCTIONS FOR DRY BULK FERTILIZERS

1. Apply 200-700 lb of the herbicide/fertilizer mixture per acre.
2. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending.
3. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops.
4. Non-uniform application may also result in unsatisfactory weed control. To obtain satisfactory weed control in areas where conventional tillage is practiced, shallowly incorporate the mixture into the soil.
5. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil.
6. On coarse-textured soils, make applications approximately 14 days prior to planting.

**Precaution:** To help avoid rotational crop injury, make applications as early as possible, since Tyrant Herbicide impregnated onto dry bulk fertilizers can be expected to last longer in the soil than Tyrant Herbicide applied as a spray in water or fluid fertilizer.

### 4.6 Application through Irrigation Systems (Chemigation)

#### 4.6.1 CHEMIGATION RESTRICTIONS

##### **ONLY APPLY THIS PRODUCT THROUGH CENTER-PIVOT IRRIGATION SYSTEMS.**

- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments when needed.

#### 4.6.2 APPLICATION DIRECTIONS FOR CENTER PIVOT IRRIGATION SYSTEMS

- Apply this product only through a center pivot irrigation system.
- Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment.
- Maintain sufficient agitation to keep the herbicide in suspension.
- Meter into irrigation water during entire period of water application.
- Apply in 1/2-1 inch of water. Use the lower water volume (1/2 inch) on *coarse-textured soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

**Precaution for center pivot applications:** Where sprinkler distribution patterns **DO NOT** overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

#### 4.6.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back-flow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

### 4.7 Sprayer Cleanout

Because some non-labeled crops are sensitive to low rates of Tyrant Herbicide, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using the following procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of one gal. of household ammonia per 50 gal. of water. Many commercial spray tank cleaners may be used as well. Consult your HELENA representative for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. **DO NOT** use chlorine-based cleaners such as Clorox®.
3. When available, 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. 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**. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
5. Dispose of rinsate from steps 1-4 in a responsible manner (see **Section 9.0**).
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

## 5.0 REPLANT AND ROTATIONAL CROP RESTRICTIONS

### 5.1 Replanting

If replanting is necessary in fields previously treated with Tyrant Herbicide, the field may be replanted to soybeans, sugarcane or potatoes. Before replanting, refer to the specific crop use sections for use directions, precautions, and restrictions.

### 5.2 Rotational Crop Restrictions

The following crops may be planted at the specified interval following application of Tyrant Herbicide.

Crop	Plant-Back Interval
Corn	4 months
Alfalfa Winter barley Winter wheat	4 1/2 months
Peas Rice Spring barley Spring wheat	8 months
Asparagus Cotton Forage grasses Lentils Sainfoin Tomatoes Other crops not listed (except root crops)	12 months
Onions Sugar beets and other root crops	18 months
<b>ROTATIONAL CROPS USE RESTRICTIONS</b>	
1. Cover crops for soil building or erosion control may be planted any time, but <b>DO NOT</b> graze or harvest for food or feed. Stand reductions may occur in some areas.	
2. Crop rotation instructions <b>DO NOT</b> include restrictions for the tank mix partner. Refer to the label of the other product for additional restrictions.	
3. Refer to the specific crop use sections for additional crop rotation precautions.	
4. <b>DO NOT</b> rotate rice after any application to a primary crop at greater than 1.0 lb ai/A of metribuzin per season.	

## 6.0 RESTRICTIONS AND PRECAUTIONS

### 6.1 Use Restrictions

- **DO NOT** sell, use, or distribute this product in Nassau and Suffolk Counties in the State of New York.
- **DO NOT** use this product in the State of California.
- **DO NOT** apply this product within 50 ft of perennial or intermittent streams and rivers.
- **DO NOT** apply this product through any type of irrigation system except center pivot systems.
- Apply only by ground equipment when used for burndown of existing vegetation in conservation tillage systems.
- For use in sugarcane in Texas, Louisiana, and Florida only.
- This pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target plants) is minimal (i.e., when the wind is blowing away from the sensitive area).
- Low-pressure and high-volume hand wand equipment is prohibited.

## 6.2 Use Precautions

- **DO NOT** apply under conditions which 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 soils that are subject to wind erosion (usually high silt and/or fine to very fine sand fractions and low organic matter content) when conditions are favorable for wind erosion. Under these conditions, settle the soil surface first by rainfall or irrigation.
  - **Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns.**
  - **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 1/2 inch of rainfall has occurred between application and the first irrigation.
  - Avoid applying Tyrant Herbicide if prevailing conditions may be expected to result in off-site movement.
- **Activation:** A small amount of rainfall or irrigation is required to activate Tyrant Herbicide following application. In areas of low rainfall, follow a preemergence application with light irrigation of 1/4 to 1/2 inch of water. **DO NOT** apply heavy irrigation immediately after application. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.
- Avoid aerial application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

## 6.3 Spray Drift Management

As with all crop protection products, it is important to avoid off-target movement onto adjacent land or crops, as even small amounts may injure sensitive plants. To reduce spray drift, the following spray drift management requirements must be followed.

### MANDATORY SPRAY DRIFT MANAGEMENT

#### Ground Boom Applications

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplet size (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

#### Boomless Ground Applications

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572.3) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

#### Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.
- To assure that spray will not adversely affect adjacent sensitive non-target plants, apply Tyrant Herbicide by aircraft at a minimum upwind distance of 400 ft from sensitive plants.

### 6.3.1 SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### 6.3.2 IMPORTANCE OF DROPLET SIZE

- An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **6.3.3 CONTROLLING DROPLET SIZE - GROUND BOOM**

- Volume - increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **6.3.4 CONTROLLING DROPLET SIZE - AIRCRAFT**

- Adjust Nozzles - follow nozzle manufacturers recommendations for setting up nozzles.
- Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **6.3.5 BOOM HEIGHT - GROUND BOOM**

- Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage.
- For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **6.3.6 BOOMLESS GROUND APPLICATIONS**

- Setting nozzles at the lowest effective height will help reduce the potential for spray drift.

### **6.3.7 RELEASE HEIGHT - AIRCRAFT**

- Higher release heights increase the potential for spray drift.
- Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **6.3.8 SHIELDED SPRAYERS**

- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers.
- Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **6.3.9 TEMPERATURE AND HUMIDITY**

- When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **6.3.10 TEMPERATURE INVERSIONS**

- Drift potential is high during a temperature inversion.
- Temperature inversions restrict vertical air mixing, which causes small suspend droplets to remain in a concentrated cloud.
- Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning.
- The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator.
- Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- Avoid applications during temperature inversions.

### **6.3.11 WIND**

- Drift potential generally increases with wind speed.
- AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **6.3.12 SENSITIVE AREAS**

- Only apply Tyrant Herbicide 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 blowing away from the sensitive areas).
- To assure that spray will not adversely affect adjacent sensitive non-target plants, apply Tyrant Herbicide by aircraft at a minimum upwind distance of 400 ft from sensitive plants.

## 7.0 WEEDS CONTROLLED OR PARTIALLY CONTROLLED BY TYRANT HERBICIDE

### PARTIAL WEED CONTROL

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control. Control of these weeds can be erratic, due partially to variable weather conditions.

### 7.1 Weeds Controlled by Tyrant Herbicide Applied Preemergence

Common Name	Scientific Name	Weed Type	Control (C) or Partial Control (PC)*
Barnyardgrass	<i>Echinochloa crus-galli</i>	Grass	C
Bluegrass, annual	<i>Poa annua</i>	Grass	C
Crabgrass, large	<i>Digitaria ischaemum</i>	Grass	C
Crabgrass, smooth	<i>Digitaria sanguinalis</i>	Grass	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	Grass	C
Cupgrass, Prairie	<i>Eriochloa contracta</i>	Grass	C
Cupgrass, Southwestern	<i>Eriochloa acuminata</i>	Grass	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	Grass	PC
Foxtail, bristly	<i>Setaria verticillata</i>	Grass	C
Foxtail, giant	<i>Setaria faberi</i>	Grass	C
Foxtail, green	<i>Setaria viridis</i>	Grass	C
Foxtail, millet	<i>Setaria italica</i>	Grass	C
Foxtail, yellow	<i>Setaria pumila</i>	Grass	C
Junglerice	<i>Echinochloa colona</i>	Grass	C
Goosegrass	<i>Eleusine indica</i>	Grass	C
Johnsongrass (seedling)	<i>Sorghum halepense</i>	Grass	PC
Millet, wild-proso	<i>Panicum miliaceum</i>	Grass	PC
Panicum, fall	<i>Panicum dichotomiflorum</i>	Grass	C
Panicum, Texas	<i>Panicum texanum</i>	Grass	PC
Rice, red	<i>Oryza sativa</i>	Grass	C
Ryegrass, Italian	<i>Lolium multiflorum</i>	Grass	C
Sandbur, field	<i>Cenchrus spinifex</i>	Grass	PC
Sandbur, Southern	<i>Cenchrus echinatus</i>	Grass	PC
Shattercane	<i>Sorghum bicolor</i>	Grass	PC
Signalgrass, broadleaf	<i>Urochloa platyphylla</i>	Grass	C
Sorghum (volunteer)	<i>Sorghum bicolor</i>	Grass	PC
Witchgrass	<i>Panicum capillare</i>	Grass	C

Common Name	Scientific Name	Weed Type	Control (C) or Partial Control (PC)*
Amaranth, Palmer	<i>Amaranthus palmeri</i>	Broadleaf	C
Amaranth, Powell	<i>Amaranthus powellii</i>	Broadleaf	C
Anoda, spurred	<i>Anoda cristata</i>	Broadleaf	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	Broadleaf	PC
Carpetweed	<i>Mollugo verticillata</i>	Broadleaf	C
Chickweed, common	<i>Stellaria media</i>	Broadleaf	C
Cocklebur	<i>Xanthium strumarium</i>	Broadleaf	PC
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>	Broadleaf	C
Eclipta	<i>Eclipta prostrata</i>	Broadleaf	PC
Galinsoga, hairy	<i>Galinsoga quadriradiata</i>	Broadleaf	C
Galinsoga, smallflower	<i>Galinsoga parviflora</i>	Broadleaf	C
Henbit	<i>Lamium amplexicaule</i>	Broadleaf	C
Jimsonweed	<i>Datura stramonium</i>	Broadleaf	C
Knotweed spp.	<i>Datura stramonium</i>	Broadleaf	C
Kochia	<i>Polygonum sp.</i>	Broadleaf	C
Ladysthumb	<i>Persicaria maculosa</i>	Broadleaf	C
Lambsquarters, common	<i>Chenopodium album</i>	Broadleaf	C
Lettuce, prickly	<i>Lactuca serriola</i>	Broadleaf	C
Mallow, Venice	<i>Hibiscus trionum</i>	Broadleaf	C
Mustard spp.		Broadleaf	C
Nightshade, Eastern black	<i>Solanum ptychanthum</i>	Broadleaf	C
Nightshade, hairy	<i>Solanum physalifolium</i>	Broadleaf	PC
Pennycress, field	<i>Thlaspi arvense</i>	Broadleaf	C
Pepperweed, Virginia	<i>Lepidium virginicum</i>	Broadleaf	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	Broadleaf	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	Broadleaf	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	Broadleaf	C
Pigweed, tumble	<i>Amaranthus albus</i>	Broadleaf	C

continued...

## 7.1 Weeds Controlled by Tyrant Herbicide Applied Preemergence (continued)

Common Name	Scientific Name	Weed Type	Control (C) or Partial Control (PC)*
Purslane, common	<i>Portulaca oleracea</i>	Broadleaf	C
Pusley, Florida	<i>Richardia scabra</i>	Broadleaf	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	Broadleaf	PC
Redweed	<i>Melochia corchorifolia</i>	Broadleaf	C
Sesbania, hemp	<i>Sesbania herbacea</i>	Broadleaf	C
Shepherd's-Purse	<i>Capsella bursa-pastoris</i>	Broadleaf	C
Sicklepod	<i>Senna obtusifolia</i>	Broadleaf	C
Sida, prickly	<i>Sida spinosa</i>	Broadleaf	C
Smartweed, Pennsylvania	<i>Persicaria pensylvanica</i>	Broadleaf	C
Spiderwort, tropical	<i>Commelina benghalensis</i>	Broadleaf	C
Spurge, spotted	<i>Euphorbia maculata</i>	Broadleaf	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	Broadleaf	C
Thistle, Russian	<i>Salsola tragus</i>	Broadleaf	C
Velvetleaf	<i>Abutilon theophrasti</i>	Broadleaf	PC
Waterhemp	<i>Amaranthus tuberculatus</i>	Broadleaf	C
Nutsedge, yellow	<i>Cyperus esculentus</i>	Sedge	C

\*except triazine resistant biotypes other than *Galinsoga* spp., black nightshade, pigweed spp., and waterhemp spp.

### Procedures that might improve control of weeds listed above:

- Thoroughly till soil to destroy germinating and emerged weeds.
- If Tyrant Herbicide is to be used preemergence, apply at planting or immediately after planting.
- If available, sprinkler irrigate within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse textured soils and higher volume (1 inch) on fine textured soils.
- If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, make a uniform, shallow cultivation as soon as weeds emerge or apply an appropriately labeled herbicide to control emerged weeds.

## 8.0 CROP USE DIRECTIONS

### SOIL TEXTURES

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

Coarse	Medium	Fine
Loamy sand Sand Sandy loam	Loam Silt Silt loam Sandy clay Sandy clay loam	Clay Clay loam Silty clay Silty clay loam

- Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Tyrant Herbicide, treat this soil as "fine-textured".

## 8.1 Potatoes (DO NOT use in California)

### 8.1.1 PREEMERGENCE OR POSTEMERGENCE APPLICATIONS

Crops (including cultivars, varieties, and/or hybrid of these)		
Potato		
Application Timing	Rate	Use Directions
Preemergence	<p>For all applications use the rate for the specific soil texture and organic matter (OM) as follows:</p> <p><b>Coarse Soils with 0.5-3% OM:</b> 1.5-2.0 pt/A</p> <p><b>Coarse Soils with &gt;3% OM:</b> 2.0-2.4 pt/A</p> <p><b>Medium Soils with 0.5-3% OM:</b> 2.4-2.75 pt/A</p> <p><b>Medium Soils with &gt;3% OM:</b> 2.75-2.9 pt/A</p> <p><b>Fine Soils with 0.5-3% OM:</b> 2.4-2.75 pt/A</p> <p><b>Fine Soils with &gt;3% OM:</b> 2.75-2.9 pt/A</p>	<p>Apply after planting but before crop emergence or apply after drag-off if this operation is part of the usual cultural practice.</p> <p>Dry weather following Tyrant Herbicide application may reduce effectiveness.</p> <p><b>DO NOT</b> apply Tyrant Herbicide as a preplant incorporated application or crop injury may occur.</p>
Postemergence	<p>For all applications use the rate for the specific soil texture and organic matter (OM) as follows:</p> <p><b>Coarse Soils with <math>\geq 0.5\%</math> OM:</b> 1.5 pt/A</p> <p><b>Medium Soils with <math>\geq 0.5\%</math> OM:</b> 1.5-2.2 pt/A</p> <p><b>Fine Soils with <math>\geq 0.5\%</math> OM:</b> 1.5-2.2 pt/A</p>	<p>Apply postemergence <b>only</b> in center pivot irrigation water, after drag-off if that is a usual cultural practice.</p> <p>See <b>Section 4.6</b> for instructions on center pivot irrigation application.</p>
<p><b>For Weed Control:</b></p> <ul style="list-style-type: none"> <li>Refer to <b>Section 7.1</b> for list of weeds controlled or partially controlled.</li> <li>Where a rate range is given use the lower end of the rate range on the more coarse-textured soils listed within that group and/or where weed pressures are known to be light, use the high end of the rate range on the more fine-textured soils listed within that group and/or where the weeds pressures are known to be heavy.</li> </ul>		
<p><b>Tank Mix Application Options:</b></p> <ul style="list-style-type: none"> <li>For preemergence applications, Tyrant Herbicide may be tank mixed with other pesticide products registered for preemergence applications in potatoes.</li> <li>For postemergence applications (center pivot irrigation applications only), i.e. where potato vines are exposed, there may be increased risk of crop injury from certain product mixtures. At this application timing, tank mix Tyrant Herbicide only with pesticide products which allow tank mixing and postemergence chemigation on their product label.</li> <li>Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels.</li> </ul>		
<p><b>Resistance Management:</b></p> <ul style="list-style-type: none"> <li>Refer to <b>Section 3.1</b>.</li> </ul>		

continued...

### 8.1.1 PREEMERGENCE OR POSTEMERGENCE APPLICATIONS (continued)

#### Precautions:

- For preemergence application on soils that classify as a "sand" texture – **DO NOT** use more than 1.5 pt/A of Tyrant Herbicide, or more than 0.5 lb ai/A of metribuzin in total, or crop injury may occur.
- For postemergence application, crop injury may occur on soils that classify as a "sand" texture and have less than 0.5% organic matter.
- Tyrant Herbicide is not recommended for use on muck or peat soil.
- **DO NOT** apply Tyrant Herbicide postemergence if the weather in the next 3 days is predicted to be cool, wet, or cloudy, as crop injury may occur.
- To avoid crop injury, make postemergence applications only on russetted or white skinned varieties of potatoes that are not early maturing. Avoid postemergence applications on Atlantic, Bellchip, Centennial, Chipbelle, Shepody and Superior varieties. Preemergence applications on these varieties may cause crop injury under adverse weather conditions, on coarse soils, under high soil pH and with higher use rates.
- Potato varieties may vary in their response to a given herbicide application. When using Tyrant Herbicide for the first time on a particular variety, always determine crop tolerance before using on a field-scale.
- Certain cereal varieties are sensitive to metribuzin and should not be planted during the next growing season unless the following cultural practices occur:
  - o Potato vines left in the row as a result of harvest must be uniformly distributed over the soil surface prior to plowing
  - o Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.

#### USE RESTRICTIONS

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:**
  - 2.75 pt/A (0.5-3% OM) = 1.80 lb/A S-metolachlor; 0.43 lb/A metribuzin
  - 2.9 pt/A (>3% OM) = 1.90 lb/A S-metolachlor; 0.45 lb/A metribuzin
- 3) **Maximum Annual Rate:** 4.95 pt/A/year (0.5-3% OM); 5.1 pt/A/year (>3% OM)
  - a. **DO NOT** exceed 3.43 lb ai/A/year of S-metolachlor-containing products.
    - 4.95 pt/A/year = 3.25 lb/A/year of S-metolachlor; 0.77 lb/A/year of metribuzin
    - 5.1 pt/A/year = 3.34 lb/A/year of S-metolachlor; 0.80 lb/A/year of metribuzin
  - b. **DO NOT** exceed 1.0 lb ai/A/year of metribuzin-containing products.
- 4) **DO NOT** make more than 2 applications per year.
- 5) **DO NOT** apply after June 30 in Idaho, Oregon, or Washington if the treated land will be planted to a crop other than potatoes in the fall.
- 6) **DO NOT** apply Tyrant Herbicide to sweet potatoes or yams.
- 7) **Pre-harvest Interval (PHI):** 60 days

## 8.2 Soybeans (DO NOT use in California)

### 8.2.1 PREPLANT SURFACE, PREPLANT INCORPORATED, PREEMERGENCE, OR POSTEMERGENCE-DIRECTED APPLICATIONS

Crops (including cultivars, varieties, and/or hybrids of these)		
Soybeans		
Application Timing	Rate (pt/A)	Use Directions
<b>Conventional Tillage Systems</b> Preplant Surface Preplant Incorporated Preemergence	For all applications use the rate for the specific soil texture and organic matter (OM) as follows:  <b>Coarse Soils with 0.5-3% OM:</b> 1.2-1.5 pt/A  <b>Coarse Soils with &gt;3% OM:</b> 1.5-1.8 pt/A  <b>Medium Soils with 0.5-3% OM:</b> 1.8-2.1 pt/A  <b>Medium Soils with &gt;3% OM:</b> 2.1-2.4 pt/A  <b>Fine Soils with 0.5-3% OM:</b> 2.4-2.7 pt/A  <b>Fine Soils with &gt;3% OM:</b> 2.4-3.0 pt/A	Dry weather following Tyrant Herbicide application may reduce effectiveness.  Where a rate range is listed, use the higher rates (a) in fields with a history of severe weed pressure, (b) when the time between early preplant and preemergence overlay applications approaches the maximum 30 days, (c) when the organic matter content of the soil is over 3%, and/or (d) when heavy crop residues are present on the soil surface.  <b>Preplant Surface Application</b> Tyrant Herbicide may be applied up to 30 days before planting. For application earlier than 30 days before planting the high rate in the rate range may be needed for extended residual control.  If weeds are present at time of application, burndown herbicides must be tank mixed to control emerged weeds (see Burndown Weed Control in <b>Section 8.2.2</b> ).  <b>Preplant Incorporated Application</b> Incorporate Tyrant Herbicide within 14 days of planting uniformly into the top 2 inches of soil using an implement capable of providing uniform incorporation.  Apply preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected.  If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.  <b>Preemergence application</b> Apply during planting or after planting but before crop emerges.
<b>Conventional Tillage Systems - Coarse Textured Soils in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, and VA ONLY</b>  Preplant Surface Preplant Incorporated Preemergence	For all applications use the rate for the specific soil texture and organic matter (OM) as follows:  <b>Coarse Soils with ≥0.5% OM:</b> 1.2-2.1 pt/A	Use on sand with less than 1% organic matter may result in crop injury.

continued...

**8.2.1 PREPLANT SURFACE, PREPLANT INCORPORATED, PREEMERGENCE, OR POSTEMERGENCE-DIRECTED APPLICATIONS**  
(continued)

Application Timing	Rate (pt/A)	Use Directions
<p><b>Reduced Tillage and No-Till Systems</b></p> <p>Preplant Surface Preplant Incorporated Preemergence</p>	<p>For all applications use the rate for the specific soil texture as follows:</p> <p><b>Coarse Soils:</b> 1.2-2.1 pt/A</p> <p><b>Medium Soils:</b> 2.1-3.0 pt/A</p> <p><b>Fine Soils:</b> 2.7-3.6 pt/A</p>	<p>Application may be made up to 30 days before planting or after planting, but before soybean emergence.</p> <p>For all soil textures, use low rate range for low residue level or soils with less than 3% organic matter. Use the higher rate range for high residue level or soils with greater than 3% organic matter.</p> <p>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Tyrant Herbicide, treat this soil as “fine-textured.”</p>
<p><b>Postemergence Directed Application</b> (AR, LA, MO-Bootheel, MS, and TN ONLY)</p>	<p>For all applications use the rate for the specific soil texture and organic matter (OM) as follows:</p> <p><b>Coarse Soils with 0.5-3% OM:</b> 1.3 pt/A</p> <p><b>Coarse Soils with ≥3% OM:</b> 1.5 pt/A</p> <p><b>Medium Soils with 0.5-3% OM:</b> 1.5-2.0 pt/A</p> <p><b>Medium Soils with ≥3% OM:</b> 2 pt/A</p> <p><b>Fine Soils with ≥0.5% OM:</b> 2 pt/A</p> <p><b>Mississippi Delta Only with ≥0.5% OM: (silty clay, clay)</b> 2 pt/A</p>	<p>A postemergence directed spray can be applied to soybeans in addition to a preemergence or preplant application of Tyrant Herbicide according to label directions.</p> <p>Apply in 10 to 20 gallons of water per acre in a 6 to 8 inch band on each side of the row when soybeans are at least 8 inches tall. <b>DO NOT</b> allow the directed spray to contact more than the lower 1/4 to 1/3 of soybean plants.</p> <p>Postemergence directed applications of Tyrant Herbicide can be tank mixed with other herbicides for control of emerged weeds.</p>
<p><b>For Weed Control:</b></p> <ul style="list-style-type: none"> <li>Refer to <b>Section 7.1</b> for list of weeds controlled or partially controlled.</li> </ul>		
<p><b>Tank Mix or Sequential Application Options:</b></p> <ul style="list-style-type: none"> <li>Refer to <b>Section 8.2.2</b> for tank-mix or sequential application options.</li> <li>Refer to the tank-mix partner for use directions, restrictions, and limitations. Follow the most restrictive product label.</li> </ul>		
<p><b>Resistance Management:</b></p> <ul style="list-style-type: none"> <li>Refer to <b>Section 3.1</b>.</li> </ul>		

**Precautions:**

- Injury to soybeans or reduced weed control may occur when Tyrant Herbicide is used under the following conditions, these conditions should be avoided wherever possible.
  - When soils have a calcareous surface area or a pH of 7.5 or higher.
  - Due to the sensitivity of certain soybean varieties, consult your seed supplier for information on its tolerance to metribuzin (an active ingredient in Tyrant Herbicide) before using Tyrant Herbicide.
  - When applied in conjunction with soil-applied organic phosphate pesticides.
  - Uneven application or improper incorporation of Tyrant Herbicide can decrease the level of weed control and/or increase the level of crop injury.
  - When applied to any soil with less than 0.5% organic matter.
  - Where soil incorporation is deeper than recommended.
  - When sprayers were not calibrated accurately.
  - When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
  - When soybeans are planted less than 1-1/2" deep, particularly when Tyrant Herbicide is applied preemergence.
  - Where high soil levels of atrazine are present.
  - When using poor quality soybean seed.
- On soils with pH above 7.0, soybean injury caused by metribuzin in Tyrant Herbicide may occur at rates higher than 1.5 pt/A. To avoid injury, **DO NOT** use Tyrant Herbicide at rates greater than 1.5 pt/A on soils above pH 7.0.
- If replanting is necessary in fields previously treated with Tyrant Herbicide, the field may be replanted to soybeans. A minimum of tillage is recommended. **DO NOT** apply a second treatment as injury to soybeans may occur.
- When making a post-directed application, soybean leaves contacted by spray will be killed or severely injured. **DO NOT** apply directly to soybeans or serious injury will occur.
- If heavy rain occurs soon after a post-directed application, crop injury may result, especially in poorly drained areas where water stands for several days.

**USE RESTRICTIONS**

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 3.6 pt/A (2.36 lb/A of S-metolachlor and 0.56 lb/A of metribuzin)
- 3) **Maximum Annual Rate:** 3.6 pt/A/year of Tyrant Herbicide
  - a. **DO NOT** exceed 3.71 lb ai/A/year of S-metolachlor-containing products.
  - b. **DO NOT** exceed 1.0 lb ai/A/year of metribuzin-containing products
- 4) **DO NOT** graze or feed treated soybean plants or hay to livestock for 40 days following application, except following a post-directed application. **DO NOT** graze or feed treated soybean forage, hay, or straw to livestock following a post-directed application.
- 5) **DO NOT** make more than 2 applications a year, where the total of the two applications will not exceed 3.6 pt/A/yr (2.36 lb/A of S-metolachlor and 0.56 lb/A of metribuzin)
- 6) **Minimum Application Interval:** 2 weeks
- 7) **Pre-harvest Interval (PHI):** 75 days
- 8) **On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.**

## 8.2.2 TANK-MIX OR SEQUENTIAL COMBINATIONS

Application	Tank-Mix Brands	Use Directions						
<b>Burndown Weed Control</b>	2,4-D brands Dicamba brands Glufosinate brands Glyphosate only brands Gramoxone® SL 3.0 (EPA Reg. No. 100-1652)	<p>Tyrant Herbicide can be tank mixed with other herbicides as part of a burndown herbicide program for control of existing vegetation prior to soybean emergence.</p> <p>Tyrant Herbicide may be applied up to 30 days before planting or preemergence.</p> <p>Use the rates below for Tyrant Herbicide based upon soil texture. Use the high end of the rate range for Tyrant Herbicide applications made 14-30 days before planting.</p> <table> <tr> <td>Coarse Soils</td> <td>1.2-2.1 pt/A</td> </tr> <tr> <td>Medium Soils</td> <td>2.1-3.0 pt/A</td> </tr> <tr> <td>Fine Soils</td> <td>2.7-3.6 pt/A</td> </tr> </table> <p>Use low end of the rate range for low residue level or soils with less than 3% organic matter.</p>	Coarse Soils	1.2-2.1 pt/A	Medium Soils	2.1-3.0 pt/A	Fine Soils	2.7-3.6 pt/A
Coarse Soils	1.2-2.1 pt/A							
Medium Soils	2.1-3.0 pt/A							
Fine Soils	2.7-3.6 pt/A							
<b>Preplant Surface</b>  <b>Preplant Incorporated</b>  <b>Preemergence</b>	Canopy® 75 DG (EPA Reg. No. 353-444) Dual Magnum® brands (EPA Reg. Nos. 100-816, 100-818, 100-829) FirstRate® 84 WDG (EPA Reg. No. 5481-676) Pursuit® (EPA Reg. No. 241-310) Python® 80 WDG (EPA Reg. No. 62719-277) Scepter® 70 DG (EPA Reg. No. 241.306) Sonic® (EPA Reg. No. 62719-680) Sulfentrazone brands Synchrony (EPA Reg. No. 353-648) Prowl® 3.3 EC (EPA Reg. No. 241-337)	<p>Use these tank mixtures for residual control of certain broadleaf weeds and grasses in soybeans in addition to those controlled by Tyrant Herbicide.</p> <p>Use higher rate of Tyrant Herbicide on soils with more than 3% organic matter.</p> <p>For use on coarse soils Coarse Textured Soils in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, and VA, use the rates for Tyrant Herbicide presented in <b>Section 8.2.1</b>.</p>						
<b>For Weed Control:</b> Refer to <b>Section 7.1</b> for list of weeds controlled or partially controlled.								
<b>Precautions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply burndown mixtures with Tyrant Herbicide after crop emergence.</li> <li>• <b>DO NOT</b> use on sand soils or on loamy sand soils with &lt;2% organic matter.</li> <li>• <b>DO NOT</b> use this mixture on soils with pH greater than 7.0.</li> </ul>								
<b>TANK-MIX USE RESTRICTIONS</b>								
<ol style="list-style-type: none"> <li>1) All use restrictions cited in <b>Section 8.2.1</b> for Tyrant Herbicide solo apply to tank mixes with Tyrant Herbicide.</li> <li>2) 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.</li> </ol>								

## 8.3 Sugarcane (Only for use in LA, FL, and TX)

### 8.3.1 PREPLANT SURFACE, PREEMERGENCE, OR POSTEMERGENCE APPLICATIONS

Crops (including cultivars, varieties, and/or hybrids of these)		
Sugarcane		
Application Timing	Rate (pt/A)	Use Directions
<b>Preplant Surface</b> <b>Preemergence</b> <b>Postemergence</b>	1.5 to 3.0 pt/A	Dry weather following Tyrant Herbicide application may reduce effectiveness. <b>Preplant Application:</b> Apply prior to planting of cane. <b>Preemergence Application:</b> Apply after planting of cane but prior to crop emergence. Application can also be made after harvest of ratoon cane. <b>Postemergence Application:</b> Spray contact with sugarcane foliage may result in minor leaf margin chlorosis and/or necrosis. The addition of spray adjuvants such as crop oil concentrates (COC's) or methylated seed oils (MSO's) can increase the risk of crop injury.
<b>For Weed Control:</b> Refer to <b>Section 7.1</b> for list of weeds controlled or partially controlled.		
<b>PRECAUTIONS</b>		
1) If Tyrant Herbicide is tank-mixed with other herbicides, follow the label restrictions for the most restrictive tank-mix partner(s).		
<b>USE RESTRICTIONS</b>		
1) <b>Maximum Single Application Rate:</b> 3.0 pt/A (1.97 lb/A S-metolachlor and 0.47 lb/A metribuzin) 2) <b>DO NOT</b> apply more than two applications of Tyrant Herbicide per year 3) <b>Minimum Application Interval:</b> 2 weeks 4) <b>Maximum Annual Rate:</b> 5.1 pt/A/year (3.34 lb/A S-metolachlor and 0.80 lb/A metribuzin) a. <b>DO NOT</b> exceed 2.0 lb ai/A/year of metribuzin containing products in Florida b. <b>DO NOT</b> exceed 3.0 lb ai/A/year of metribuzin containing products in Louisiana and Texas. c. <b>DO NOT</b> exceed 3.34 lb ai/A/year of S-metolachlor containing products 5) <b>DO NOT</b> use treated foliage for feed, hay, or forage. 6) <b>DO NOT</b> apply within 100 days of harvest. 7) <b>DO NOT</b> use on sand soils in Florida. 8) To assure that spray will not adversely affect adjacent non-target plants, apply this product by aircraft at a minimum upwind distance of 400 ft from sensitive plants.		

## 9.0 STORAGE AND DISPOSAL

### STORAGE AND DISPOSAL

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

#### Pesticide Storage

Store in a cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to **Precautionary Statements** on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

#### Pesticide Disposal

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Container Handling (less than or equal to 5 gallons)

**Non-refillable container. 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  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use 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 other procedures approved by state and local authorities.

#### Container Handling (Greater than 5 gallons)

**Non-refillable container. 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  $\frac{1}{4}$  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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### Container Handling (Greater than 5 gallons)

**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 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 other procedures allowed by state and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to contain spills, leaks, and other accidents to prevent further exposure of facilities and equipment. Absorb spilled product with absorbing materials and dispose of in an approved waste disposal facility. In the event of a major spill, fire, or other emergency, call 1-800-424-9300, day or night.

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

## 10.0 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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of HELENA AGRI-ENTERPRISES, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold HELENA and Seller harmless for any claims relating to such factors.

HELENA 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 permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or HELENA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, HELENA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall HELENA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF HELENA 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 HELENA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

HELENA 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 HELENA.

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Tyrant<sup>®</sup> trademark of Helena Holding Company

Viton<sup>™</sup> is a trademark of The Chemours Company FC, LLC

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For non-emergency (e.g., current product information), call  
HELENA at 1-901-761-0050.

Manufactured for:  
Helena Agri-Enterprises, LLC  
225 Schilling Boulevard, Suite 300  
Collierville, Tennessee 38017

**SCPSR-HEL-1162C-L1F 0623**  
**4185637**

## NOTES

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

S-METOLACHLOR	GROUP	15	HERBICIDE
METRIBUZIN	GROUP	5	HERBICIDE

# Tyrant<sup>®</sup>

## HERBICIDE



For control of certain grasses and broadleaf weeds in potatoes, soybeans, and sugarcane.

ACTIVE INGREDIENTS:	% by wt.
S-metolachlor*:	58.2%
Metribuzin**:	13.8%
Other Ingredients***:	28.0%
<b>Total:</b>	<b>100.0%</b>

\*CAS No. 87392-12-9

\*\*CAS No. 21087-64-9

\*\*\*Contains petroleum distillates.

Tyrant Herbicide is formulated as an Emulsifiable Concentrate (EC) containing 5.25 lb of S-metolachlor and 1.25 lb of metribuzin per gallon.

See additional precautionary statements and directions for use inside booklet.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-1162-5905

EPA Est. 5905-IA-01

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Manufactured for:

Helena Agri-Enterprises, LLC

225 Schilling Boulevard, Suite 300

Collierville, Tennessee 38017

**SCPSR-HEL-1162C-L1F 0623**  
**4185637**

**AD 062223HAE**

**NET CONTENTS:**  
**2.5 Gallons (9.46 L)**

## KEEP OUT OF REACH OF CHILDREN

# WARNING/AVISO

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.)

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

**WARNING/AVISO:** Causes substantial, but temporary eye injury. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. **DO NOT** get in eyes or on clothing. Avoid contact with skin. 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.

#### 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:** Immediately call a poison control center or doctor. **DO NOT** induce vomiting unless told to by a poison control center or doctor. **DO NOT** give any liquid to the person. **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, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or a doctor for further treatment advice.

**NOTE TO PHYSICIAN:** Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **CHEMTREC at 1-800-424-9300**.

**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 washwater or rinsate.

**Groundwater Advisory:** S-metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface and where the soils are very permeable, i.e., well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

**Surface Water Advisory:** S-metolachlor may impact surface water quality due to runoff of rain water or through ground spray drift. This is especially true for poorly

draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. 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 loading of S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications with rainfall or irrigation is expected to occur within 48 hours.

**Non-Target Organism Advisory:** This is product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protected the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**Reporting Ecological Incidents:** To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-800-888-8372.

**Mixing/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.

Use check-valves or anti-siphoning devices on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft of all wells, including abandoned wells, drainage wells, and sink holes.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to **Precautionary Statements** on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling: Non-refillable container. 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 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 other procedures approved by state and local authorities.

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

