

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

<i>S</i> -METOLACHLOR	GROUP	15	HERBICIDE
METRIBUZIN	GROUP	5	HERBICIDE

METALLISTM

MTZ



Contains *S*-metolachlor and metribuzin, the active ingredients used in Boundary[®] 6.5EC Herbicide.

For control of certain grasses and broadleaf weeds in potatoes and soybeans

ACTIVE INGREDIENTS:	(% by weight)
<i>S</i> -metolachlor*	58.2%
Metribuzin**	13.8%
OTHER INGREDIENTS***:	28.0%
TOTAL:	100.0%

Metallis MTZ is formulated as an emulsifiable concentrate (EC) containing 5.25 lbs of *S*-metolachlor and 1.25 lbs of metribuzin per gallon.

*CAS No. 87392-12-9 **CAS No. 21087-64-9 ***Contains petroleum distillates.

EPA Reg. No.: 91234-185

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 below for additional Precautionary Statements.

FIRST AID	
If in eyes:	<ul style="list-style-type: none">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:	<ul style="list-style-type: none">Immediately call a poison control center or doctor.Do not induce vomiting unless told to do so 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:	<ul style="list-style-type: none">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:	<ul style="list-style-type: none">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 doctor for further treatment advice.
Note to Physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

MetallisTM MTZ is not manufactured, or distributed by Syngenta Crop Protection, LLC, seller of Boundary[®] 6.5EC Herbicide.



Manufactured for:
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

Causes substantial, but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin. 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. Contains petroleum distillates.

This product may cause skin sensitization reactions in some people.

Personal Protective Equipment (PPE)

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.

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.

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 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

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

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 has the potential to contaminate surface water through ground spray drift. Under some conditions, S-metolachlor 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 draining 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.

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 and/or irrigation 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 must 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 must 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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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.

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, wear:

- Protective eyewear
- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, or Viton \geq 14 mils
- Chemical-resistant footwear
- Chemical-resistant headgear for overhead exposure

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

PRODUCT INFORMATION

Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixture partners must be registered in states where they are used. Refer to and follow the label for each tank mix product used.

Restriction:

- 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 powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.

Restrictions:

- 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.

WEED RESISTANCE MANAGEMENT

For resistance management, please note that **MetalliiS MTZ** contains both a Group 15 and a Group 5 herbicide. Any weed population may contain plants naturally resistant to Group 15 and/or Group 5 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of **MetalliiS MTZ** or other Group 15 and/or Group 5 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds 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.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- Scout 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.

Additional Best Management Practices Include:

- Plant into weed-free fields and keep fields as weed-free as possible.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and postharvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than

two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.

Report any incidence of non-performance of this product against a particular weed species to your Atticus, LLC retailer, representative or call 984-465-4754. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs 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 ingredient in this product.

Mixing Instructions

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean the spray equipment before using **MetalliS MTZ**. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying operation. Do not allow spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Application in Water or Fluid Fertilizers

MetalliS MTZ Alone: Add 1/2 of the required amount of water or fluid fertilizer to the spray or mixing tank. With the agitator running, add **MetalliS MTZ** into the spray tank. Continue agitation while adding the remainder of the water or fluid fertilizer. Begin application of the spray solution after the **MetalliS MTZ** has completely dispersed in the water or fluid fertilizer. Maintain agitation until all of the mixture has been applied.

MetalliS MTZ + Tank Mixtures: Add 1/2 of the required amount of water or fluid fertilizer to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids such as **MetalliS MTZ**, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product.

Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

(1) When using **MetalliS MTZ** in tank mixtures, add all products in water-soluble packaging to the tank and mix with plain water before any other tank mix partner, including **MetalliS MTZ**. 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. (2) Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not exceed any label dosage rate. The most restrictive label precautions and limitations must be followed.

MetalliS MTZ is compatible with most common tank mix partners. However, the physical compatibility of **MetalliS MTZ** with tank mix partners should be tested before use. To determine the physical compatibility of **MetalliS MTZ** with other products, use a jar test, as described below.

Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of **MetalliS MTZ** with other pesticides. The following test assumes a spray volume of 25 gals/A. For other spray volumes, make appropriate changes in the ingredients.

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.

Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of 2 one qt jars with tight lids. **Note:** 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 tsp or 1.2 milliliters of a compatibility agent approved for this use (tsp is equivalent to 2.0 pts/100 gals spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on listed label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. 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 15-30 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.

Ground Application: Apply **MetalliS MTZ** alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. Calibrate the sprayer before use at the beginning of the season. For **MetalliS MTZ** tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh.

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

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

Center Pivot Irrigation Application

If chemigating, apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. 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, 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 the 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 should the need arise.

Operating Instructions

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- 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 also 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.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor 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 or piston 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.
- 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.

Aerial Application: Apply **MetalliS MTZ** in water using a minimum spray volume of 2 gals/A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 feet above the crop with low-drift nozzles at a maximum pressure of 40 psi.

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.

Aerial Drift Management

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

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the information covered in the **Spray Drift Management** section below.

Spray Drift Management

Information on Droplet Size

The most effective way to reduce drift potential is to apply large 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 (see **Wind, Temperature and Humidity**, and **Temperature Inversions**).

Controlling Droplet Size

- **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 flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wing-span or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Do not apply when wind speed is below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

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

Temperature Inversions

Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited

cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

Only apply **MetalliS MTZ** when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not apply 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.

Cleaning Equipment After Application

Because some non-labeled crops are sensitive to low rates of **MetalliS MTZ**, 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 gals of water. Many commercial spray tank cleaners may be used as well. Consult your Atticus 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 1-3 as described under the **ENVIRONMENTAL HAZARDS** section of the **PRECAUTIONARY STATEMENTS**.
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.

Impregnation Onto Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with **MetalliS MTZ** and used to control weeds. When applying **MetalliS MTZ** with dry bulk fertilizers, follow all directions for use and precautions on the **MetalliS MTZ** label regarding target crops, rates per acre, soil texture, application methods, 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.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray **MetalliS MTZ** onto the fertilizer must be spaced to provide uniform spray coverage. Take care to aim the spray onto the fertilizer only, avoiding 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 the amount of **MetalliS MTZ** to be used by the following formula:

$$\frac{2,000}{\text{Lbs of fertilizer per acre}} \times \frac{\text{pt of MetalliS MTZ}}{\text{per acre}} = \frac{\text{pt of MetalliS MTZ}}{\text{per ton of fertilizer}}$$

Pneumatic (Compressed Air) Application

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

Restrictions: (1) Mixtures of **MetalliS MTZ** and Aromatic 200 must be used 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. (2) When impregnating **MetalliS MTZ** in a blender before application, a drier mixture can be obtained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or another drying agent of 6/30 particle size is recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Precautions: To avoid potential for explosion, (1) Do not impregnate **MetalliS MTZ** on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine **MetalliS MTZ** with a single superphosphate (1-20-0) or treble superphosphate (0-46-0). (3) Do not use **MetalliS MTZ** on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application of Impregnated Dry Bulk Granular Fertilizer

Apply 200-700 lbs of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. 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. On coarse-textured soils, make applications approximately 14 days prior to planting.

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

Table 1: Crop Rotation Intervals^{1,3}

Rotational Interval After Application of MetalliS MTZ ²				
4 months	4.5 months	8 months	12 months	18 months
Corn	Winter Barley Winter Wheat Alfalfa	Peas Rice Spring Barley Spring Wheat	Asparagus Cotton Forage Grasses Lentils Sainfoin Sugarcane Tomatoes Other Crops not listed (except root crops)	Onions Sugar Beets and Other Root Crops

¹ Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

² Crop rotation restrictions do not 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.

Replanting

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

Activation

A small amount of rainfall or irrigation is required to activate **MetalliS MTZ** 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.

POTATOES*

***NOT FOR USE IN CALIFORNIA**

MetalliS MTZ may be used for preemergence weed control prior to or after potato emergence. **MetalliS MTZ** has some postemergence activity on weeds, but the consistency and spectrum of weed control is much better preemergence to weeds.

Preplant incorporated applications are not recommended due to an increased risk of crop injury.

Preemergence Applications

Apply with ground spray equipment, aerial spray equipment, or by center pivot irrigation equipment which is capable of making a uniform broadcast application. Apply after planting but before crop emergence, or apply after drag-off if this operation is part of the usual cultural practice.

Postemergence Applications

Apply postemergence only in center pivot irrigation water, after drag-off if that is a usual cultural practice, but not closer than 60 days before harvest. Refer to the **Center Pivot Irrigation Application** section of this label for application information.

Table 2: Weeds Controlled by MetalliS MTZ

Annual Broadleaves*		
Anoda, spurred Beggarweed, Florida Carpetweed Chickweed, common Copperleaf, hophornbeam <i>Galinsoga</i> spp. Henbit Jimsonweed Knotweed spp. Ladysthumb Lambsquarters, common	Lettuce, prickly Mallow, Venice Mustard spp. Nightshade, black Pennycress, field Pepperweed, Virginia Pigweed spp. Purslane, common Pusley, Florida Redweed <i>Sesbania</i> spp.	Shepherd's-purse Sicklepod Sida, prickly/teaweed Smartweed, Pennsylvania Spurge, spotted Starbur, bristly Thistle, Russian Waterhemp spp.
Annual Grasses		
Barnyardgrass Bluegrass, annual Crabgrass spp. Crowfootgrass Cupgrass, prairie	Cupgrass, southwestern Foxtail spp. Goosegrass Junglerice Panicum, fall	Rice, red Signalgrass, broadleaf Witchgrass
Sedges		
Yellow nutsedge		

MetalliS MTZ will provide suppression** of the following broadleaf weeds (except triazine-resistant broadleaf biotypes): cocklebur, common ragweed, kochia, velvetleaf, hairy nightshade and common sunflower and grasses such as seedling johnsongrass, Texas panicum, sandbur spp., shattercane, and the volunteer crops: barley, sorghum, and wheat.

* Except triazine-resistant biotypes other than *Galinsoga* spp., black nightshade, pigweed spp. and waterhemp spp.

** Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.

Application Rates

The application rates for **MetalliS MTZ** for use in potatoes are provided below.

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.

Table 3: MetalliS MTZ Preemergence Use Rates in Potatoes

Soil Texture	0.5 to 3% Organic Matter Pt/A	Over 3% Organic Matter Pt/A
COARSE ¹ (Sand, loamy sand, sandy loam)	1.5 - 2.0 (0.98 - 1.31 lbs <i>S</i> -metolachlor, 0.23 - 0.31 lb metribuzin)	2.0 - 2.4 (1.31 - 1.58 lbs <i>S</i> -metolachlor, 0.31-0.38 lb metribuzin)
MEDIUM or FINE (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	2.4 - 2.75 (1.58 - 1.80 lbs <i>S</i> -metolachlor, 0.38 - 0.43 lb metribuzin)	2.75 - 2.9 (1.80 - 1.90 lbs <i>S</i> -metolachlor, 0.43 - 0.45 lb metribuzin)

¹ On soils that classify as a "sand" texture do not use more than 1.5 pts/A of **MetalliS MTZ**, or more than 0.5 lb a.i./A of metribuzin in total, or crop injury may occur.

Table 4: MetalliS MTZ Postemergence Use Rates in Potatoes (for application in center pivot irrigation water only)

Soil Texture	0.5% Organic Matter and Above Pt/A
COARSE ¹ (Sand, loamy sand, sandy loam)	1.5 (0.98 lb S-metolachlor, 0.23 lb metribuzin)
MEDIUM or FINE (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	1.5 - 2.2 (0.98 - 1.44 lbs S-metolachlor, 0.23 - 0.34 lb metribuzin)

¹ Crop injury may occur on soils that classify as a "sand" texture and have less than 0.5% organic matter.

Restrictions:

- Two applications may be applied per year. For potatoes grown in soils with organic matter between 3% and 10% do not apply more than 5.1 pints (3.35 lbs a.i. S-metolachlor) per acre/year; and in soils with organic matter between 0.5% and 3.0% do not apply more than 4.95 pints (3.25 lbs a.i. S-metolachlor) per acre/year. Do not apply more than 1.0 lb a.i. of metribuzin per acre/year. **MetalliS MTZ** is not recommended for application to muck or peat soils.
- Do not apply **MetalliS MTZ** postemergence if the weather in the next 3 days is predicted to be cool, wet or cloudy, as crop injury may occur.
- Do not harvest within 60 days of the last **MetalliS MTZ** application.
- 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.
- Do not apply **MetalliS MTZ** to sweet potatoes or yams.

Precautions:

- To avoid crop injury, make postemergence applications only on russeted 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 **MetalliS MTZ** for the first time on a particular variety, always determine crop tolerance before using on a field-scale.
- The planting of sensitive crops such as lettuce, cole crops and cucurbits during the next growing season following application of **MetalliS MTZ** may result in injury to that crop.
- Certain cereal varieties are sensitive to metribuzin and should not be planted during the next growing season unless the following cultural practices occur:
 - Potato vines left in the row as a result of harvest must be uniformly distributed over the soil surface prior to plowing, and
 - Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.
- Do not apply **MetalliS MTZ** as a preplant incorporated application in potatoes, or crop injury may occur.

Tank Mixtures With Other Products Registered for Use in Potatoes

For preemergence applications in potatoes, **MetalliS MTZ** may be tank mixed with other pesticide products registered for use in this way and timing in potatoes. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see the **Compatibility Test** section of this label).

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 **MetalliS MTZ** only with pesticide products which allow tank mixing and postemergence chemigation on their product label. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels.

SOYBEANS*

*NOT FOR USE IN CALIFORNIA

MetalliS MTZ may be applied preplant surface, preplant incorporated, preemergence, or as a sequential application to control weeds listed on this label.

Grazing and Feeding Treated Soybean Plants

Restriction:

Treated soybean plants may be grazed or fed to livestock 40 days after the last application of **MetalliS MTZ**.

Rate Ranges

Where a rate range is shown, use a lower rate on soils that are coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

Replanting

If replanting is necessary in fields previously treated with **MetalliS MTZ**, 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.

Precautions (Soybeans)

Injury to soybeans or reduced weed control may occur when **MetalliS MTZ** 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, **MetalliS MTZ** is not recommended for use on Altona, AP 55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. If you choose to plant a newly released soybean variety, consult your seed supplier for information on its tolerance to metribuzin (an active ingredient in **MetalliS MTZ**) before using **MetalliS MTZ**.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Uneven application or improper incorporation of **MetalliS MTZ** 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 **MetalliS MTZ** is applied preemergence.
- Where high soil levels of atrazine are present.
- When using poor quality soybean seed.

MetalliS MTZ, when applied as directed, will control the following weeds.

Table 5: Weeds Controlled by MetalliS MTZ

Annual Broadleaves*		
Anoda, spurred Beggarweed, Florida Carpetweed Chickweed, common Copperleaf, hophornbeam <i>Galinsoga</i> spp. Henbit Jimsonweed Knotweed spp. Kochia Ladysthumb	Lambsquarters, common Lettuce, prickly Mallow, Venice Mustard spp. Nightshade, black Pennycress, field Pepperweed, Virginia Pigweed spp. Purslane, common Pusley, Florida Redweed	<i>Sesbania</i> spp. Shepherd's-purse Sicklepod Sida, prickly/teaweed Smartweed, Pennsylvania Spurge, spotted Starbur, bristly Thistle, Russian Waterhemp spp.
Annual Grasses		
Barnyardgrass Bluegrass, annual Crabgrass spp. Crowfootgrass Cupgrass, prairie	Cupgrass, southwestern Foxtail spp. Goosegrass Junglerice Panicum, fall	Rice, red Signalgrass, broadleaf Witchgrass

MetalliS MTZ will provide suppression** of cocklebur, common ragweed, seedling johnsongrass, velvetleaf, hairy nightshade, yellow nutsedge, Texas panicum, sandbur spp., shattercane, common sunflower, and the volunteer crops barley, sorghum, and wheat.

* Except triazine-resistant biotypes other than *Galinsoga* spp., black nightshade, pigweed spp. and waterhemp spp.

** Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.

MetalliS MTZ Foundation Program for Planned 2-Pass Weed Control Systems

MetalliS MTZ may be applied preplant incorporated or preemergence at 1.5-1.8 pts/A (0.98-1.18 lbs S-metolachlor/A, 0.23-0.28 lb metribuzin/A) on all soils to reduce competition from the weeds listed in **Table 5** for a 30-day period when followed by a planned postemergence weed control treatment. Permitted postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field including Roundup® (glyphosate) or Touchdown® (glyphosate) brands (for use only on Roundup Ready® or glyphosate resistant soybean varieties). Follow all application directions for **MetalliS MTZ** used alone, either preplant incorporated or preemergence. For the postemergence herbicide application, consult the selected postemergence herbicide manufacturer's label for weeds controlled, weed size, application rate, additional use directions, precautions, and limitations before use.

Restriction: On soils with pH above 7.0, use the 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) rate only.

MetalliS MTZ in Conventional Tillage Systems Preplant Incorporated Application

Incorporate **MetalliS MTZ** uniformly into the top 2 inches of soil within 14 days before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply **MetalliS MTZ** 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.

Preemergence Application

Dry weather following preemergence application of **MetalliS MTZ** may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

For information on applying product in fluid or dry fertilizer, refer to **Application in Water or Fluid Fertilizers** or **Impregnation Onto Dry Bulk Granular Fertilizers** and **Application of Impregnated Dry Bulk Granular Fertilizer** on this label.

Table 6: MetalliS MTZ Use Rates - Conventional Tillage Systems (Broadcast Rate)

Soil Texture	0.5 to 3% Organic Matter Pt/A	Over 3% Organic Matter ² Pt/A
COARSE ¹ (Sand, loamy sand, sandy loam)	1.2 - 1.5 ³ (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	1.5 - 1.8 (0.98 - 1.18 lbs S-metolachlor, 0.23 - 0.28 lb metribuzin)
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.8 - 2.1 (1.18 - 1.38 lbs S-metolachlor, 0.28 - 0.33 lb metribuzin)	2.1 - 2.4 (1.38 - 1.58 lbs S-metolachlor, 0.33 - 0.38 lb metribuzin)
FINE (silty clay, silty clay loam ⁴ , clay, clay loam)	2.4 - 2.7 (1.58 - 1.77 lbs S-metolachlor, 0.38 - 0.42 lb metribuzin)	2.4 - 3.0 (1.58 - 1.97 lbs S-metolachlor, 0.38 - 0.47 lb metribuzin)

¹ Do not use on sand soils. On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.

² For preplant incorporated application, use the lower rate.

³ For Southern and Southeastern states, see section below **In Coarse (Light) Soils**.

⁴ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** may occur at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

In Coarse (Light) Soils

(Only in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA)

MetalliS MTZ may be applied as a preplant incorporated or preemergence application in coarse-textured, low organic matter soils in the states listed above. Refer to the appropriate sections of this label for specific directions on use, precautions, and restrictions.

Weeds Controlled: Refer to **Table 5**.

Table 7: MetalliS MTZ Preemergence Application (Broadcast Rates)

Soil Texture	Organic Matter	MetalliS MTZ (Pt/A)
COARSE (Sand ¹ , loamy sand, sandy loam)	0.5% or above	1.2 - 2.1 (0.79 - 1.38 lbs S-metolachlor, 0.19 - 0.33 lb metribuzin)

¹ Do not use on sand with less than 1% organic matter.

Use the higher rate under heavy weed pressures and/or on soils higher in organic matter. For maximum control of sicklepod, use a preemergence application.

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** may occur at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

MetalliS MTZ Plus JaRaka™ WDG (flumetsulam, EPA Reg. No. 91234-116) or Python® 80 WDG (flumetsulam, EPA Reg. No. 62719-277) Tank Mix Application

MetalliS MTZ may be applied with JaRaka WDG (flumetsulam) or Python 80 WDG (flumetsulam) preplant surface, preplant incorporated, or preemergence for the control of certain broadleaf weeds and grasses in soybeans. Consult the JaRaka (flumetsulam) or Python (flumetsulam) label for specific directions on use, precautions, and restrictions not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus JaRaka (flumetsulam) or Python (flumetsulam) will improve control of Palmer amaranth, velvetleaf, common ragweed, wild sunflower, waterhemp spp., kochia, and triazine-resistant common lambsquarters. (**Note:** JaRaka WDG (flumetsulam) will not improve control of ALS-resistant weeds.)

Table 8: MetalliS MTZ Plus JaRaka™ WDG (flumetsulam, EPA Reg. No. 91234-116) or Python® 80 WDG (flumetsulam, EPA Reg. No. 62719-277) Application (Broadcast Rates)

Soil Texture	MetalliS MTZ ¹ (Pt/A)	JaRaka WDG ¹ (flumetsulam) or Python® 80 WDG ¹ (flumetsulam) (Oz/A)
COARSE (loamy sand or sandy loam)	1.2 - 1.5 (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 - 2.1 (0.98 - 1.38 lbs S-metolachlor, 0.23 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ³ , clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Use the higher rate on soils with more than 3% organic matter.

² For Southern and Southeastern states in coarse soils, see **In Coarse (Light) Soils** section of this label for rates of **MetalliS MTZ**.

³ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** occasionally occurs at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

MetalliS MTZ Plus Scepter® 70 DG (imazaquin, EPA Reg. No. 5481-610) Tank Mix Application

MetalliS MTZ may be applied with Scepter (imazaquin) herbicide preplant surface, preplant incorporated, or preemergence for the control of certain broadleaf weeds and grasses in soybeans. Consult the Scepter (imazaquin) label for specific directions on use, precautions, restrictions, and any additional weeds not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus Scepter (imazaquin) improves control of the following annual broadleaf weeds:

Buffalobur	Morningglory, smallflower	Sicklepod
Cocklebur	Ragweed, common	Sunflower
Morningglory, pitted		

MetalliS MTZ plus Scepter (imazaquin) will provide suppression (reduce the competition) of ivyleaf and tall morningglory, and giant ragweed.

Table 9: MetalliS MTZ Plus Scepter (imazaquin, EPA Reg. No. 5481-610) Application (Broadcast Rates)

Soil Texture	MetalliS MTZ ¹ (Pt/A)	Scepter 70 DG ² (imazaquin) (Oz/A)
COARSE (loamy sand or sandy loam)	1.2 - 1.5 ³ (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 - 2.1 (0.98 - 1.38 lbs S-metolachlor, 0.23 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ⁴ , clay, clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Use higher listed rate on soils with more than 3% organic matter.

² For preemergence application, use the higher rate. For maximum control of moderate to heavy infestations of cocklebur, giant ragweed, and sicklepod, use the higher rate and a preplant incorporated application.

³ For Southern and Southeastern states in coarse soils, see the **In Coarse (Light) Soils** section of this label for **MetalliS MTZ** rates.

⁴ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** may occur at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

MetalliS MTZ Plus Canopy® 75 DG (metribuzin plus chlorimuron-ethyl, EPA Reg. No. 352-444) Tank Mix Application

MetalliS MTZ may be applied with Canopy (metribuzin plus chlorimuron-ethyl) herbicide as a preplant surface, preplant incorporated, or preemergence application for the control of certain broadleaf weeds and grasses in soybeans. Consult the Canopy (metribuzin plus chlorimuron-ethyl) herbicide label for specific directions on use, precautions, and restrictions not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus Canopy (metribuzin plus chlorimuron-ethyl) will improve control of cocklebur and velvetleaf and provide additional suppression (reduce competition) of giant ragweed, common ragweed, and morningglory spp.

Table 10: MetalliS MTZ Plus Canopy 75 DG (metribuzin plus chlorimuron-ethyl, EPA Reg. No. 352-444) Application (Broadcast Rates)

Soil Texture ¹	MetalliS MTZ (Pt/A) ²	Canopy ⁵ 75 DG (metribuzin plus chlorimuron-ethyl) (Oz/A)
COARSE (loamy sand or sandy loam)	1.2 - 1.5 ³ (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 - 2.1 (0.98 - 1.38 lbs S-metolachlor, 0.23 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ⁴ , clay, clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Do not use on soils with pH greater than 7.0.

² Use higher rate on soils with more than 3% organic matter.

³ For Southern and Southeastern states in coarse soils, see **In Coarse (Light) Soils** section of this label for rates of **MetalliS MTZ**.

⁴ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

⁵ Do not use Canopy 75 DG (metribuzin plus chlorimuron-ethyl) as a mix partner on soils with pH above 6.8.

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** occasionally occurs at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

MetalliS MTZ Plus FrontRunner™ (cloransulam-methyl, EPA Reg. No. 91234-84) or FirstRate® (cloransulam-methyl, EPA Reg. No. 62719-275) Tank Mix Application

MetalliS MTZ may be applied with FrontRunner (cloransulam-methyl) or FirstRate (cloransulam-methyl) herbicide as a preplant, preplant incorporated, or preemergence application for the control of certain broadleaf weeds and grasses in soybeans. Consult the FrontRunner (cloransulam-methyl) or FirstRate (cloransulam-methyl) label for specific directions on use, precautions, and restrictions not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus FrontRunner (cloransulam-methyl) or FirstRate (cloransulam-methyl) will improve control of cocklebur, giant ragweed, common ragweed, common sunflower, and velvetleaf and provide additional suppression (reduce competition) of morningglory species.

Table 11: MetalliS MTZ Plus FrontRunner™ (cloransulam-methyl, EPA Reg. No. 91234-84) or FirstRate® (cloransulam-methyl, EPA Reg. No. 62719-275) Application (Broadcast Rates)

Soil Texture	MetalliS MTZ (Pt/A)	FrontRunner™ ¹ (cloransulam-methyl) or FirstRate® ¹ (cloransulam-methyl) (Oz/A)
COARSE (loamy sand or sandy loam)	1.2 - 1.5 ² (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 - 2.1 (0.98 - 1.38 lbs S-metolachlor, 0.23 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ³ , clay, clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Use higher rate on soils with more than 3% organic matter.

² For Southern and Southeastern states in coarse soils, see **In Coarse (Light) Soils** section of this label for rates of **MetalliS MTZ**.

³ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** occasionally occurs at rates higher than 1.5 pts/A. To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A on soils above pH 7.0.

MetalliS MTZ Plus Command® 3ME (clomazone, EPA Reg. No. 279-3158) Tank Mix Application

MetalliS MTZ may be applied with Command (clomazone) as a preplant or shallow incorporated broadcast application for the control of certain broadleaf weeds and grasses in soybeans. Command may also be applied preemergent. Consult the Command (clomazone) label for specific directions for use, precautions, and restrictions not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus Command (clomazone) will provide improved control of heavy infestations of velvetleaf, jimsonweed, and common ragweed.

Table 12: MetalliS MTZ Plus Command (clomazone, EPA Reg. No. 279-3158) Application (Broadcast Rates)

Soil Texture	MetalliS MTZ (Pt/A) ¹	Command 3ME (clomazone) (Oz/A)
COARSE (loamy sand or sandy loam)	1.2 - 1.5 ² (0.79 - 0.98 lb S-metolachlor, 0.19 - 0.23 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 - 2.1 (0.98 - 1.38 lbs S-metolachlor, 0.23 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ³ , clay, clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Use higher listed rate on soils with organic matter greater than 3%.

² For Southern and Southeastern states in coarse soils, see the **In Coarse (Light) Soils** section of this label for **MetalliS MTZ** rates.

³ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** occasionally occurs at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

Precautions: (1) Do not plant wheat, oats, barley, rye, or alfalfa in the fall or following spring after application as crop injury may occur. (2) Do not apply where weather conditions favor drift.

MetalliS MTZ Plus Prowl® 3.3 EC (pendimethalin, EPA Reg. No. 241-337) Tank Mix Application

MetalliS MTZ may be applied with Prowl (pendimethalin) as a preplant surface, pre-plant incorporated, or preemergence broadcast application for the control of certain broadleaf weeds and grasses in soybeans. Consult the Prowl (pendimethalin) label for specific directions for use, precautions, and restrictions not specified on this label. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, **MetalliS MTZ** plus Prowl (pendimethalin) will provide improved control for triazine-resistant weeds such as common lambsquarters, pigweed spp., etc.

Table 13: MetalliS MTZ Plus Prowl (pendimethalin, EPA Reg. No. 241-337) Application (Broadcast Rates)

Soil Texture	MetalliS MTZ (Pt/A) ¹	Prowl 3.3 EC (pendimethalin) (Pt/A)
COARSE (loamy sand or sandy loam)	1.5 - 1.8 ² (0.98 - 1.18 lbs S-metolachlor, 0.23 - 0.28 lb metribuzin)	Refer to tank mix product label
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.8 - 2.1 (1.18 - 1.38 lbs S-metolachlor, 0.28 - 0.33 lb metribuzin)	Refer to tank mix product label
FINE (silty clay, silty clay loam ³ , clay, clay loam)	2.1 - 2.7 (1.38 - 1.77 lbs S-metolachlor, 0.33 - 0.42 lb metribuzin)	Refer to tank mix product label

¹ Use higher listed rate is recommended on soils with organic matter greater than 3%.

² For Southern and Southeastern states in coarse soils, see the **In Coarse (Light) Soils** section of this label for **MetalliS MTZ** rates.

³ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in **MetalliS MTZ** occasionally occurs at rates higher than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A). To avoid injury, do not use **MetalliS MTZ** at rates greater than 1.5 pts/A (0.98 lb S-metolachlor/A, 0.23 lb metribuzin/A) on soils above pH 7.0.

Herbicides That May Be Applied Postemergence Following MetalliS MTZ

If required, application of **MetalliS MTZ** alone or in tank mixture may be followed by an application of a postemergence herbicide to provide additional control of certain weeds. The following postemergence herbicides may be applied:

Aim® (carfentrazone-ethyl, EPA Reg. No. 279-3241)	Liberty® ² or Inflammé™ ² (glufosinate, EPA Reg. No. 91234-82)
Arrow™ (clethodim, EPA Reg. No. 66222-60)	Poast® (sethoxydim, EPA Reg. No. 7969-58)
Assure® II (quizalofop-p-ethyl, EPA Reg. No. 5481-646)	Poast Plus® (sethoxydim, EPA Reg. No. 7969-88)
Basagran® or Biscayne™ (sodium salt of bentazon, EPA Reg. No. 66330-413, 91234-102)	Pursuit® or Pemex™ (imazethapyr, EPA Reg. No. 241-310, 91234-168)
Classic® (chlorimuron, EPA Reg. No. 352-436)	Raptor® or Octivio™ (imazamox, EPA Reg. No. 241-379, 91234-88)
Cobra® or Mamba™ (lactofen, EPA Reg. No. 74530-92, 91234-169)	Reflex® (sodium salt of fomesafen, EPA Reg. No. 100-993)
Extreme ¹ (imazethapyr plus glyphosate, EPA Reg. No. 241-405)	Resource® (flumiclorac, EPA Reg. No. 59539-82)
FirstRate® or FrontRunner™ (cloransulam-methyl, EPA Reg. No. 62719-275, 91234-84)	Roundup® brands ¹ (glyphosate)
Flexstar® (sodium salt of fomesafen, EPA Reg. No. 100-1101)	Scepter (imazaquin, EPA Reg. No. 5481-597)
Flexstar® GT 3.51 (sodium salt of fomesafen plus glyphosate, EPA Reg. No. 100-1385)	Select® (clethodim, EPA Reg. No. 59639-78)
Fusilade® DX (fluazifop-p-butyl, EPA Reg. No. 100-1070)	Sequence® ¹ (glyphosate plus S-metolachlor, EPA Reg. No. 100-1185)
Frontrow® (cloransulam-methyl, EPA Reg. No. 62719-299)	Storm® (sodium salt of bentazon plus sodium salt of acifluorfen, EPA Reg. No. 70506-59)
Fusion® (fluazifop-p-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059)	Synchrony® XP ³ (chlorimuron-ethyl plus thifensulfuron-methyl, EPA Reg. No. 352-648)
Harmony® GT XP (thifensulfuron, EPA Reg. No. 279-9577)	Touchdown® brands ¹ (glyphosate)
	Ultra Blazer® or Derecho™ (sodium salt of acifluorfen, EPA Reg. No. 70506-60, 91234-108)

¹ Use on Roundup-Ready or glyphosate resistant soybean varieties only.

² Use on LibertyLink® soybean varieties only.

³ Use on STS™ soybean varieties only.

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

Reduced Rate Scepter 70 DG (imazaquin, EPA Reg. No. 5481-610) Application Following MetalliS MTZ

If required, application of **MetalliS MTZ** alone or in tank mixture may be followed by an early postemergence application of a reduced rate of Scepter (imazaquin) herbicide for improved control of cocklebur. Refer to Scepter 70 DG (imazaquin) label for use rates. Use the lower rate of Scepter (imazaquin) if cocklebur are less than 3 inches tall or have fewer than 3 leaves and are actively growing and use the higher rate if cocklebur are 3-6 inches tall and actively growing. Do not use Scepter (imazaquin) when plants have been subjected to stress conditions. Use of nonionic surfactant or crop oil concentrate is recommended for Scepter (imazaquin) applications. Refer to the Scepter 70 DG (imazaquin) label for additional use directions and special precautions/restrictions. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Burndown Weed Control

MetalliS MTZ can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean emergence in conservation tillage (reduced-tillage/no-till) systems. **MetalliS MTZ** may be tank mixed with 2,4-D low volatile ester (LVE), Gramoxone® SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431), Touchdown brands (glyphosate), Roundup brands (glyphosate), Fusion (fluazifop-p-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059), Poast Plus (sethoxydim, EPA Reg. No. 7969-88), or Select (clethodim, EPA Reg. No. 59639-78) for control of emerged weeds prior to crop emergence. **MetalliS MTZ** burndown tank mixes can be applied before planting or prior to crop emergence.

Application

MetalliS MTZ may be applied up to 30 days before planting or preemergence. Apply only by ground equipment when **MetalliS MTZ** is used for burndown of existing vegetation in conservation tillage systems. Use the high end of the rate range for **MetalliS MTZ** applications made 14-30 days before planting. Refer to **Table 16** for rates of **MetalliS MTZ** and to the individual labels for rates of tank mix partners. Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 14: Burndown Rates of Tank Mix Partners

Product	Rate	Directions and Remarks
2,4-D LVE	Refer to product label for use rates	Apply at least 7 days preplant when using 2,4-D LVE at lower labeled use rates and at least 30 days preplant with higher labeled use rates. Refer to the 2,4-D LVE label for spray adjuvant recommendations and restrictions.
Gramoxone® SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431)	Refer to product label for use rates	Must be applied prior to crop emergence. Use lower labeled use rates of Gramoxone® SL 2.0 (paraquat dichloride) for weeds less than 4 inches in height and higher labeled use rates when weeds are 4-6 inches in height. Apply in 20-60 gals of water per acre. Refer to the Gramoxone® SL 2.0 (paraquat dichloride) label for spray adjuvant recommendations and restrictions.
Gramoxone® SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431) + 2,4-D LVE	Refer to product labels for use rates	Follow the Directions and Remarks section above for 2,4-D LVE and Gramoxone® SL 2.0 (paraquat dichloride) paying special attention to crop planting restrictions with 2,4-D LVE. Include either nonionic surfactant or crop oil concentrate in this tank mix.
Touchdown brands or Roundup brands (glyphosate)	Refer to product labels for use rates	Must be applied prior to crop emergence. Use the higher rates as weeds approach the maximum weed heights listed in Table 15 . Apply in 10-20 gals of water per acre. Refer to the Touchdown or Roundup (glyphosate) label for spray adjuvant recommendations and restrictions. Any glyphosate formulation registered and labeled for use in soybeans may be tank mixed with MetalliS MTZ .
Touchdown brands or Roundup brands (glyphosate) + 2,4-D LVE	Refer to the Touchdown or Roundup label for use rates + 0.25 lb a.i./A	Follow the Directions and Remarks section above for 2,4-D LVE and Touchdown/Roundup (glyphosate) paying special attention to planting restrictions with 2,4-D LVE. Refer to the Touchdown or Roundup (glyphosate) label for spray adjuvant recommendations and restrictions. Do not use crop oil concentrate.
Fusion (fluazifop-p-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059) + 2,4-D LVE	Refer to product labels for use rates	Follow the planting restrictions under the Directions and Remarks section above for 2,4-D LVE. Refer to Fusion (fluazifop-p-butyl plus fenoxaprop-p-ethyl) label use rates to determine control of certain grasses up to 2, 4, and 6 inches in height. Refer to Fusion (fluazifop-p-butyl plus fenoxaprop-p-ethyl) label for spray adjuvant recommendations and restrictions.
Poast Plus (sethoxydim, EPA Reg. No. 7969-88) + 2,4-D LVE	Refer to product labels for use rates	Follow the planting restrictions under the Directions and Remarks section above for 2,4-D LVE. Refer to Poast Plus (sethoxydim) label use rates to determine control of certain grasses up to 2 and 3 inches in height. Refer to Poast Plus (sethoxydim) label for spray adjuvant recommendations and restrictions.
Select (clethodim, EPA Reg. No. 59639-78) + 2,4-D LVE	Refer to product labels for use rates	Follow the planting restrictions under the Directions and Remarks section above for 2,4-D LVE. Refer to Select (clethodim) label use rates to determine control of certain grasses up to 3 and 4 inches in height. Refer to Select (clethodim) label for spray adjuvant recommendations and restrictions.

Restriction: Do not apply these treatments after crop emergence. Observe all precautions and limitations on the labeling of all products used in tank mixtures. Refer to the **Product Information** section of this label for additional information, precautions, and limitations.

Soybeans

- Apply only 2,4-D low volatile ester formulations which are registered for preplant or burndown use.

Restriction:

- Do not apply tank mixtures containing 2,4-D LVE if wind is blowing toward desired susceptible plants (i.e., cotton, tobacco, tomato, etc.) or when wind speeds exceed 6 miles per hour. Observe all cautions and limitations of all products used in tank mixtures.

Feeding Restrictions

Soybean plants or hay treated with **MetalliS MTZ** may be grazed or fed to livestock 40 days after application. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Weeds Controlled: **MetalliS MTZ** in tank mixtures with the herbicides listed in **Table 14** will provide burndown control of the weeds listed below.

Table 15: Weeds Controlled by Burndown Rates of MetalliS MTZ Tank Mixtures

MetalliS MTZ +								
Weeds Controlled	2,4-D LVE	Poast Plus (sethoxy-dim, EPA Reg. No. 7969-88) + 2,4-D LVE	Select (cletho-dim, EPA Reg. No. 59639-78) + 2,4-D LVE	Fusion (fluazifop-p- butyl plus fenoxaprop-p- ethyl, EPA Reg. No. 100-1059) + 2,4-D LVE	Touchdown/ Roundup (glyphosate)	Touchdown/ Roundup (glyphosate) + 2,4-D LVE	Gramoxone SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431)	Gramoxone SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431) + 2,4-D LVE
Annual Grasses	Maximum Burndown Height (Inches)							
Barley	Does not control these species	-	-	-	8		4 - 6	
Barnyardgrass		2 - 3	3 - 4	-	6		4 - 6	
Crabgrass spp.		2 - 3	-	-	6		4 - 6	
Foxtail spp.		2 - 3	3 - 4	2 - 6	8		4 - 6	
Johnsongrass, seedling		2 - 3	-	-	8		4 - 6	
Panicum, fall		2 - 3	3	2 - 6	6		4 - 6	
Sandbur, field		-	-	-	8		4 - 6	
Shattercane		2 - 3	-	-	8		4 - 6	
Wheat, Volunteer		-	-	-	6		4 - 6	
Witchgrass		2 - 3	-	-	6		4 - 6	
Broadleaves	Maximum Burndown Height (Inches)							
Buffalobur		-			6	6	4 - 6	4 - 6
Chickweed, common		6			6	6	4 - 6	4 - 6
Cocklebur, common		6			6	8	4 - 6	4 - 6
Dandelion, common		6 dia. ¹			2 dia. ²	6 dia. ¹	4 dia. ³	6 dia. ¹
Henbit		4			4	4	4 - 6	4 - 6
Horseweed/marestail		6 ¹			4 ²	6	3	6 ¹
Jimsonweed		6			6	6	4 - 6	4 - 6
Kochia		4 ¹			4	4	4	4
Ladysthumb		6			6	8	4 - 6	4 - 6
Lambsquarters, common		6			6	8	4 - 6	4 - 6
Lettuce, prickly		6			4	6	4 - 6	4 - 6
Mallow, Venice		6			6	6	4 - 6	4 - 6
Morningglory spp.		6			2	4	2	4
Mustard spp.		6			6	8	4 - 6	4 - 6

(continued)

Table 15: Weeds Controlled by Burndown Rates of MetalliS MTZ Tank Mixtures (continued)

MetalliS MTZ +								
Weeds Controlled	2,4-D LVE	Poast Plus (sethoxy-dim, EPA Reg. No. 7969-88) + 2,4-D LVE	Select (cletho-dim, EPA Reg. No. 59639-78) + 2,4-D LVE	Fusion (fluazifop-p- butyl plus fenoxaprop-p- ethyl, EPA Reg. No. 100-1059) + 2,4-D LVE	Touchdown/ Roundup (glyphosate)	Touchdown/ Roundup (glyphosate) + 2,4-D LVE	Gramoxone SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431)	Gramoxone SL 2.0 (paraquat dichloride, EPA Reg. No. 100-1431) + 2,4-D LVE
Broadleaves (continued)	Maximum Burndown Height (Inches)							
Pennycress, field		6			6	6	4 - 6	4 - 6
Pigweed spp. (annual)		6			6	8	4 - 6	4 - 6
Ragweed, common		6			6 ²	8	4 - 6	4 - 6
Ragweed, giant		6 ¹			4 ²	6	4	6
Shepherd's-purse		6			6	6	4 - 6	4 - 6
Sida, prickly		6			4	4	4	4
Smartweed, Pennsylvania		6			6	8	4 - 6	4 - 6
Sunflower, common		6			6	6	4 - 6	4 - 6
Thistle, Russian		4 ¹			2 - 4 ²	4	4	4 - 6
Velvetleaf		6			6	8	4 - 6	4 - 6
Waterhemp spp.		6			6	8	4 - 6	4 - 6

¹ Refer to 2,4-D LVE label for use rate.

² Refer to Touchdown or Roundup (glyphosate) labels for minimum use rate.

³ Suppression only.

MetalliS MTZ Use Rates for Reduced and No-Till Systems Preplant Surface Application

MetalliS MTZ may be used in reduced-till and no-till systems. Applications may be made up to 30 days before planting or after planting, but before soybean emergence. Residual herbicides such as Canopy (metribuzin plus chlorimuron-ethyl, EPA Reg. No. 352-444), FrontRunner (cloransulam-methyl, EPA Reg. No. 91234-84), Scepter (imazaquin, EPA Reg. No. 5481-610), Command (clomazone, EPA Reg. No. 279-3158), JaRaka WDG (flumetsulam, EPA Reg. No. 91234-116), and Prowl (pendimethalin, EPA Reg. No. 241-418) may be tank mixed for additional weed control. If weeds are present at time of application, burndown herbicides may be added to the tank mixes (see **Burndown Weed Control** section). Refer to the tank mix product labels for specific rates and use directions.

Table 16: MetalliS MTZ use Rates for Reduced-Till and No-Till Systems (Broadcast Rates)

Soil Texture	MetalliS MTZ (Pt/A) ¹
COARSE ² (loamy sand or sandy loam)	1.2 - 2.1 (0.79 - 1.38 lbs S-metolachlor, 0.19 - 0.33 lb metribuzin)
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	2.1 - 3.0 (1.38 - 1.97 lbs S-metolachlor, 0.33 - 0.47 lb metribuzin)
FINE (silty clay, silty clay loam ³ , clay, clay loam)	2.7 - 3.6 (1.77 - 2.36 lbs S-metolachlor, 0.42 - 0.56 lb metribuzin)

¹ 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.

² Do not use on sand soils. On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.

³ Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using MetalliS MTZ, treat this soil as "fine-textured."

MetalliS MTZ Sequential Application

An early preplant (surface-applied or shallow incorporated) application of **MetalliS MTZ**, followed by a preemergence application of **MetalliS MTZ** after planting but before soybean emergence, will provide more consistent control of broadleaf and grass weeds than a single application.

A sequential application will decrease the need for tillage and/or burndown herbicides for the control of existing vegetation before planting, while providing residual control of weeds after planting.

Application

An early preplant application may be made 15-30 days before planting soybeans. Follow this application with a preemergence overlay application of **MetalliS MTZ** after planting but before crop emergence. Follow directions on this label for sequential applications from 0-14 days before planting.

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.

When weeds exceed 1-1.5 inches in height or diameter at application, use a burndown herbicide, such as Touchdown (glyphosate), Roundup (glyphosate), paraquat, or 2,4-D LVE.

Weeds Controlled: In addition to weeds controlled by **MetalliS MTZ** alone, the sequential application improves control of the following annual broadleaf weeds: buffalobur, cocklebur, common ragweed, velvetleaf, and sunflower.

Table 17: Sequential Application (Broadcast Rates)

Soil Texture ¹	Early Preplant Application MetalliS MTZ (Pt/A)	Followed by	Preemergence Overlay Application MetalliS MTZ (Pt/A)
COARSE ¹ (Sand, loamy sand or sandy loam)	1.2 - 1.8 (0.79 - 1.18 lbs S-metolachlor, 0.19 - 0.28 lb metribuzin)	followed by	0.3 - 0.9 (0.20 - 0.59 lb S-metolachlor, 0.05 - 0.14 lb metribuzin)
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	2.1 - 3.0 (1.38 - 1.97 lbs S-metolachlor, 0.33 - 0.47 lb metribuzin)	followed by	0.6 - 1.2 (0.39 - 0.79 lb S-metolachlor, 0.09 - 0.19 lb metribuzin)
FINE (silty clay, silty clay loam ³ , clay, clay loam)	2.7 - 3.6 (1.77 - 2.36 lbs S-metolachlor, 0.42 - 0.56 lb metribuzin)	followed by	0.9 - 1.5 (0.59 - 0.98 lb S-metolachlor, 0.14 - 0.23 lb metribuzin)

¹On coarse-textured soils, do not use on sand soils with less than 1% organic matter. However, on coarse-textured soils with a calcareous surface area or a pH of 7.5 or higher, do not use on sand soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.

²Total not to exceed 3.9 pints of **MetalliS MTZ** (2.56 lbs S-metolachlor, 0.61 lb metribuzin) per acre per year.

³Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using **MetalliS MTZ**, treat this soil as "fine-textured."

Postemergence Directed Application (AR, LA, MO - Bootheel only, MS, TN)

MetalliS MTZ can be applied postemergence directed to soybeans to provide residual control of weeds that emerge after crop emergence in the states of Arkansas, Louisiana, Missouri - Bootheel only, Mississippi and Tennessee. A postemergence directed spray of **MetalliS MTZ** can be applied to soybeans in addition to a preemergence or preplant application of **MetalliS MTZ** according to label directions. The total amount of **MetalliS MTZ** applied must not exceed 3.9 pints per acre per season.

See the table below for **MetalliS MTZ** postemergence directed rates according to soil type and organic matter level.

Table 18: MetalliS MTZ Rates for Postemergence Directed Application (Broadcast Rates)

Soil Texture	Broadcast Rate Per Acre	
	0.5% to less than 3% Organic Matter	3% Organic Matter or greater
COARSE (Over 2% organic matter loamy sand, sandy loam)	1.3 pts (0.85 lb S-metolachlor, 0.20 lb metribuzin)	1.5 pts (0.98 lb S-metolachlor, 0.23 lb metribuzin)
MEDIUM	1.5 - 2.0 pts (0.98 - 1.31 lbs S-metolachlor, 0.23 - 0.31 lb metribuzin)	2.0 pts (1.31 lbs S-metolachlor, 0.31 lb metribuzin)
FINE	2.0 pts (1.31 lbs S-metolachlor, 0.31 lb metribuzin)	2.0 pts (1.31 lbs S-metolachlor, 0.31 lb metribuzin)
Mississippi Delta Only (Silty clay, clay)	2.0 pts (1.31 lbs S-metolachlor, 0.31 lb metribuzin)	2.0 pts (1.31 lbs S-metolachlor, 0.31 lb metribuzin)

A postemergence directed application of **MetalliS MTZ** will provide residual pre-emergence weed control of the weeds listed in **Table 5**.

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. Do not allow the directed spray to contact more than the lower 1/4 to 1/3 of soybean plants. Soybean leaves contacted by the spray will be killed or severely injured. Do not apply directly to soybeans or serious injury will occur.

Precautions: If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.

Post-Directed Application Tank Mixes - Glyphosate Resistant Soybeans Only

Postemergence directed applications of **MetalliS MTZ** can be tank mixed with glyphosate such as Touchdown or Roundup brands in glyphosate-resistant soybeans only. Refer to the tank-mix partner label for use directions, restrictions and limitations. It is the pesticide user's responsibility to ensure that all products in the mixture are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Postemergence Directed Applications - Restrictions

- Do not exceed a total of 3.9 pints (2.56 lbs S-metolachlor, 0.61 lb metribuzin) per acre per year of **MetalliS MTZ**.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.
- Do not apply within 90 days of soybean harvest.
- MetalliS MTZ** cannot be applied to sandy loam or loamy sand soils with less than 2% organic matter.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

For plastic containers ≤ 5 gallons: Nonrefillable 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 or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or other procedures approved by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable 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 1/4 full with water. Recap 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 incineration, or other procedures approved by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer.

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