

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 10, 2021

Lisa Mathias Registration Specialist Winfield Solutions, LLC P.O. Box 64589 St. Paul, MN 55164-0589

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from

the Atrazine and Acetochlor Interim Decisions and the Technical Registrants' Commitments for the Endangered Species Act (ESA) Biological Evaluation for

Atrazine

**Product Name: TREMOR ATZ LITE NXT** 

EPA Registration Number: 33270-25

Application Dates: 08/05/2021 and 11/12/2020

Decision Numbers: 577641 and 567838

#### Dear Ms. Mathias:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Atrazine and Acetochlor Interim Decisions and with the atrazine technical registrants' commitments for the ESA Biological Evaluation. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40

Page 2 of 2 EPA Reg. No. 33270-25 Decision No. 577641 and 567838

CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Anitha Kisanga at Kisanga. Anitha@epa.gov.

Sincerely,

Kelly Sherman

Kelly Sherman

Chief, Risk Management and Implementation
Branch III (RMIB III)
Pesticide Re-Evaluation Division
Office of Pesticide Programs

U.S. Environmental Protection Agency

Enclosure

# RESTRICTED USE PESTICIDE

**Due to Ground and Surface Water Concerns** 

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

ACCEPTED 11/10/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 33270-25

ATRAZINE	GROUP	5	HERBICIDE
ACETOCHLOR	GROUP	15	HERBICIDE

# Tremor® ATZ Lite NXT **HERBICIDE**

A preemergence herbicide for control of annual grasses and broadleaf weeds in field corn, production seed corn, silage corn, sweet corn, and popcorn.

**Active Ingredients:** 

acetochlor: 2-chloro N-ethoxymethyl-N-(2-ethyl 6-methylphenyl)acetamide	46.3%
atrazine: [2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine] and related triazines	18.3%
Other Ingredients:	35.4%
Total	100.0%

Contains 516 grams/liter or 4.3 pounds/gallon of acetochlor and 204 grams/liter or 1.7 pounds/gallon atrazine and related compounds.

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

# **Keep Out of Reach of Children**

# **CAUTION**

	First Aid	
If swallowed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.	
If inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.	
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.	
If on skin or clothing:  Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.  Sensitized persons should avoid further contact and reuse of contaminated clothing. Call a poison control center or doctor for treatment advice.		
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-424-7452 for emergency medical treatment information.		

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS, COMPLETE DIRECTIONS FOR USE, WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

EPA Reg. No. 33270-25 EPA Est. No. \_\_\_\_\_

Manufactured By: Winfield Solutions, LLC P.O. Box 64589 St. Paul, MN 55164-0589

2/0805/1

# Precautionary Statements Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wear long sleeved shirt and long pants, shoes, socks, and waterproof gloves. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

# **Personal Protective Equipment (PPE)**

### Mixers, loaders, applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Waterproof gloves
- · Shoes plus socks
- A chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate

See Engineering Controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Controls:** When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because an enclosed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **User Safety Recommendations**

#### Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.
- 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**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

#### **Groundwater Advisory**

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Acetochlor 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.

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of acetochlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### **Non-target Organism Advisory**

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

# **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through www.atrazine-watershed info or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return unopened product to your point of purchase or contact Winfield Solutions, LLC for a refund.

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

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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

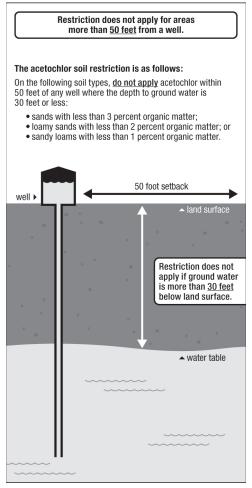
#### **Product Information**

For use only on field corn, production seed corn, silage corn, sweet corn and popcorn. Corn in this label refers to: field corn, production seed corn, silage corn, sweet corn and popcorn.

Tremor ATZ Lite NXT herbicide may be applied to the surface or incorporated into the top 1-2 inch layer of soil. It may be used for control alone, or in tank mix combinations, for the weeds listed in the "Target Weeds" section of these use directions. Tremor ATZ Lite NXT controls weeds by interfering with normal germination and seedling development. Tremor ATZ Lite NXT does not control emerged weeds present at application.

#### Use Restrictions

- Areas where sale, use, or distribution of this product is prohibited includes (but is not limited to) Nassau and Suffolk counties in the State of NY, the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands).
- Use on Roadsides; Conservation Reserve Program (CRP) Land; Conifers, including Christmas tree plantings; Timber; Forestry; and Miscanthus and other perennial bioenergy crops is prohibited.
- Use of mechanically pressurized handguns for sweet corn treatment is prohibited.
- Do not use Tremor ATZ Lite NXT on any crop other than field corn, production seed corn, silage corn, sweet corn and popcorn.
- Do not apply Tremor ATZ Lite NXT before pre-irrigation in irrigated areas.
- Do not allow Tremor ATZ Lite NXT to contaminate feed or food.
- On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1 percent organic matter. See the figure for additional clarification.



- This product must not be mixed or loaded within 50 ft. of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.
- This product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sinks 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 washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

### • Tile-Outletted Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in fields, one of the following restrictions must be used in applying this product to tile-outletted fields containing standpipes:

- 1. Do not apply this product within 66 feet of standpipes in tile-outletted fields.
- 2. Apply this product to the entire tile-outletted field and immediately incorporate it to a depth of 2-3 inches in the entire field.
- Apply this product to the entire tile-outletted field under a no-till practice only when high crop
  residue management practices are used. High crop residue management is described as a crop
  management practice where little or no crop residue is removed from the field during or after
  crop harvest.
- Do not apply Tremor ATZ Lite NXT postemergence to sweet corn.
- **Chemigation:** Do not apply this product through any type of irrigation system unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.
- Do not use flood irrigation to apply or incorporate this product.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- Do not apply under conditions that favor runoff or wind erosion of soil containing this product to nontarget areas. To prevent off-site movement due to runoff or wind erosion:
  - 1. Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - 2. Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
  - 3. 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.
- **Aerial Application:** Do not apply this product using aerial application equipment unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.
- See the Spray Drift Management section of this label for spray drift mitigation requirements and spray drift advisories.
- Flush sprayer with clean water after use.

#### **Maximum Atrazine Application Rates Per Calendar Year:**

Maximum annual atrazine broadcast application rates for corn must be as follows:

- If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 pounds active ingredient (contained in 4.7 quarts Tremor ATZ Lite NXT; however, do not apply more than 2.7 quarts Tremor ATZ Lite NXT, per maximum acetochlor rate restrictions below) per acre. If postemergence treatment is required following an earlier herbicide application, the total atrazine applied must not exceed 2.5 pounds active ingredient per acre per calendar year. Note: One quart per acre Tremor ATZ Lite NXT delivers 0.425 pound active ingredient atrazine per acre.
- Apply a maximum of 2.0 pounds active ingredient (contained in 4.7 quarts Tremor ATZ Lite NXT; however, do not apply more than 2.7 quarts Tremor ATZ Lite NXT, per maximum acetochlor rate restrictions below) per acre if a single preemergence application is made on soils that are not highly erodible or on highly erodible soil if at least 30% of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient (contained in 3.7 quarts Tremor ATZ Lite NXT; however do not apply more than 2.7 quarts Tremor ATZ Lite NXT, per maximum acetochlor rate restrictions below) per acre as a single preemergence application on highly erodible soils if less than 30% of the soil is covered with plant residues; or 2.0 pounds active ingredient (contained in 4.7 quarts Tremor ATZ Lite NXT; however do not apply more than 2.7 quarts Tremor ATZ Lite NXT, per maximum acetochlor rate restrictions below) per acre if only applied postemergence.

# Maximum Acetochlor Application Rates Per Calendar Year:

Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (2.7 quarts Tremor ATZ Lite NXT) per acre. Note: One quart per acre Tremor ATZ Lite NXT delivers 1.075 pound active ingredient acetochlor per acre.

- **Preharvest Interval:** Do not apply Tremor ATZ Lite NXT within 60 days of harvest for field corn forage uses or 45 days for sweet corn forage uses.
- Postemergence applications of Tremor ATZ Lite NXT to corn must be made before the crop reaches 11 inches in height.

#### **Use Precautions**

- Failure to strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the Environmental Protection Agency.
- **Note:** This product contains atrazine and thus may not control weeds that are known or suspected to be triazine resistant. Following many years of continuous use of atrazine and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by atrazine and related herbicides. Where this is known or suspected and weeds controlled by atrazine are expected to be present along with resistant biotypes, it is recommended that atrazine be used in combinations or in sequence with other registered herbicides which are not triazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide.
- Tremor ATZ Lite NXT should not be used on corn seed stock such as Breeders, Foundation, or Increase.
- Do not contaminate irrigation water used for crops other than corn or water used for domestic purposes.
- Tremor ATZ Lite NXT should not be stored near seeds, fertilizers, or foodstuffs.
- All containers of Tremor ATZ Lite NXT should be kept tightly closed when not in use.
- Applied according to directions and under normal growing conditions, Tremor ATZ Lite NXT will not harm
  the treated crop. During germination and early stages of growth, extended periods of unusually cold and
  wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of
  certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides may create
  abnormal conditions that weaken crop seedlings. Tremor ATZ Lite NXT used under these abnormal
  conditions could result in crop injury.

#### **Rotational Crop Restrictions:**

When tank mixing Tremor ATZ Lite NXT with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted following application of Tremor ATZ Lite NXT as indicated:

Rotational Crop (1)	Timing or Interval
corn (2)	Immediately – 0 months after application
corn, cotton, sorghum, soybeans (3) (4)	Spring/next season following application
alfalfa, barley, dry beans (adzuki, kidney, lima, navy, or pinto), lupin (grain, white, or white sweet), millet (pearl or proso), oats, peas (blackeyed, chick, cow, Crowder, field, pigeon, or Southern), potatoes, rye, sugar beets, sunflower, tobacco, triticale, wheat, wild rice	15 months after application (5)

Numbers within parentheses (-) in the table refer to specific rotational crop requirements below:

- (1) Do not plant dry beans or peas, potatoes, small grains or small-seeded legumes, sugar beets, sunflower, or tobacco during the 15 months following application, or injury from atrazine may occur.
- (2) If crop treated with Tremor ATZ Lite NXT is lost, field corn, seed corn, silage corn, popcorn, or sweet corn may be replanted immediately. Do not exceed a total of 3.0 pounds ai per acre of acetochlor (2.7 quarts Tremor ATZ Lite NXT) if additional product is applied. If applied after June 10, do not rotate to crops other than corn or sorghum the next year or crop injury from atrazine may occur.
- (3) Injury may occur to soybeans planted the year following application on soils having a calcareous subsurface layer and relatively high pH. In eastern parts of the Dakotas, Kansas, western Minnesota and Nebraska, do not rotate to soybeans if the rate applied was more than 2.0 pounds active ingredient equivalent of atrazine or soybean injury may occur.
- (4) In the High Plains and Intermountain regions of the West where rainfall is sparse and erratic or irrigation is required, use only where corn or sorghum is to follow corn.
- (5) Approved rotation crops list does not include any species of succulent beans or peas.

#### **Rotation to Non-food Winter Cover Crops**

Following harvest of food crops treated with Tremor ATZ Lite NXT, only non-food or non-feed winter cover crops (with the exception of wheat) may be planted. Do not graze or harvest rotational cover crops for food or animal feed for 18 months following the last application of Tremor ATZ Lite NXT. This prohibition does not apply to wheat, which may be planted 4 months following the last application of Tremor ATZ Lite NXT, or to nongrass animal feeds, which may be planted 9 months after the last application of Tremor ATZ Lite NXT.

## Weed Resistance Management

For resistance management, Tremor ATZ Lite NXT contains a Group 5 herbicide – atrazine and a Group 15 herbicide – acetochlor. Any weed population may contain or develop plants naturally resistant to Tremor ATZ Lite NXT and other Group 5 and/or Group 15 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed. However, any herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your Winfield Solutions, LLC representative, state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

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

- Use the full specified herbicide rate and proper application timing for the hardest to control weed species present in the field.
- Rotate the use of Tremor ATZ Lite NXT or other Group 5 and Group 15 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 with herbicides from a different group if such use is permitted; where information
  on resistance in target weed species is available, use the less resistance-prone partner at a rate
  that will control the target weed(s) equally as well as the more resistance-prone partner. Consult

your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Adopt an integrated weed-management program for herbicide use that includes scouting and uses
  historical information related to herbicide use and crop rotation, and that considers tillage (or other
  mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application
  method and timing to favor the crop and not the weeds), biological (weed-competitive crops or
  varieties) and other management practices.
- 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.
- 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, certified crop advisors, and/or Winfield Solutions, LLC representative for pesticide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.
- For further information or to report suspected resistance, contact your Winfield Solutions, LLC representative.

#### For annual cropping situations also consider the following:

- Start with a clean field and control weeds early by using a burndown herbicide treatment or tillage in combination with a soil-applied residual herbicide as appropriate.
- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.
- Use new commercial seed that is as free of weed seed as possible.

# **Spray Drift Management**

# **Mandatory Spray Drift Management**

#### **Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
- Do not apply during temperature inversions.

#### **Boomless Ground Applications:**

- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
- Do not apply during temperature inversions.

#### **Spray Drift Advisories**

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

#### Importance of Droplet Size

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

#### **Controlling Droplet Size – Ground Boom**

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

#### **Boom Height - Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **Boomless Ground Applications**

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

#### **Handheld Technology Applications**

Take precautions to minimize spray drift.

#### **Shielded Sprayers**

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

#### **Temperature and Humidity**

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

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Wind

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

# Application Directions - Corn Carriers

**Liquids:** Either water or liquid fertilizers such as solutions, slurries or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility test with these must be done **before combining** in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if Tremor ATZ Lite NXT is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Dry Bulk Fertilizer:** Tremor ATZ Lite NXT may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. See Appendix II for directions and restrictions including which fertilizers are compatible.

# **Adding to Spray Tank**

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Tremor ATZ Lite NXT alone or with tank mix combinations. If water is used as the carrier, use clean water.

**Used Alone:** When Tremor ATZ Lite NXT is used alone, add the specified amount to the spray tank when the tank is half filled with carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

**Tank Mixed:** If a tank mixture is used, it is recommended that a compatibility test be done before actual tank mixing. See Appendix I for details on the procedure for such a test.

Once compatibility is confirmed for the tank mix, fill the tank half full of carrier. Start and continue agitation throughout mixing. All return lines to the spray tank must discharge below the liquid level. Add components in the following order of formulation:

- If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
- If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when the flowable is diluted with water before adding to the tank.
- Add Tremor ATZ Lite NXT next.
- Add ammonium sulfate then Durango<sup>®</sup> DMA<sup>®</sup> herbicide, 2,4-D herbicide, and a nonionic surfactant last, if needed.
- Complete filling the sprayer tank and continue agitation.
- Batches should be mixed and applied the same day.

**Note:** For all tank mixtures, maintain agitation during mixing and throughout application to ensure spray mixture remains uniformly suspended. If spray mixture is allowed to settle at any time, thorough agitation is required to resuspend the mixture before spraying is resumed.

#### Volume

**Liquid:** Use a minimum of 10 gallons per acre in broadcast boom equipment for ground applications.

Dry Bulk Fertilizer: Use a minimum of 200 pounds of dry bulk fertilizer per acre. See Appendix II for directions and restrictions.

#### **Pressure**

If liquid carriers are used, applicators are required to select the nozzle and pressure that deliver coarse or coarser droplets (ASABE S572). Use appropriate nozzles and 50-mesh or coarser screens, if needed. Maintain sufficient agitation to ensure the mixture is suspended in the spray tank.

## **Application Timing and Methods**

For the optimum period of effective weed control during the time most critical to corn production, preplant applications of Tremor ATZ Lite NXT should occur as close as possible to planting. Preemergence applications should occur as close as possible to planting, but prior to weed emergence; this product will not control emerged weeds present at application.

**Early Preplant Surface:** On medium and fine textured soils (see Table 1), Tremor ATZ Lite NXT may be applied up to 45 days prior to planting field corn or silage corn. Split applications can be made 30 to 45 days prior to planting with 60 percent of the specified broadcast rate applied initially and the remaining 40 percent applied at planting. Applications made less than 30 days prior to planting can be made either as a split or as a single application. If weeds are present at the time of application, apply this product in a tank mixture with an appropriate contact herbicide. Observe directions for use, precautions, and restrictions on the label of the contact herbicide. During the planting operation, be careful not to move untreated soil to the surface or move treated soil out of the row, as weed control may be reduced.

**Preplant Incorporation:** Tremor ATZ Lite NXT and certain tank mixes may be mechanically incorporated in the top 2 inches of the soil with field cultivators, discs, or spring tooth harrows at any time within 14 days prior to planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked or otherwise unsatisfactory weed control. Do not mix Tremor ATZ Lite NXT deeper than 2 inches into the soil and avoid moving or shaping soil after incorporation, as weed control may be reduced.

**Preemergence Surface:** Tremor ATZ Lite NXT and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring Tremor ATZ Lite NXT into contact with germinating seeds. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Tremor ATZ Lite NXT from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Postplant-Preemergence:** Tremor ATZ Lite NXT may be applied immediately after planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to shallowly incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Tremor ATZ Lite NXT from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Banding-Preemergence:** Tremor ATZ Lite NXT may be applied in a 10 to 14 inch band after corn planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar device to incorporate the herbicide. The device used should be run at a shallow depth to prevent disturbing the corn seed. Do not remove Tremor ATZ Lite NXT from the weed control zone or dilute it with untreated soil. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Early Postemergence:** Tremor ATZ Lite NXT may be applied early postemergence to corn up to 11" tall. Applications must be made prior to weed seedling emergence or in a tank mixture with a herbicide that controls the emerged weeds. Read and follow restrictions and directions on tank mix product labels.

**Note:** Do not make postemergence applications using sprayable liquid fertilizer as the carrier because severe crop injury may occur.

**Note:** Do not apply Tremor ATZ Lite NXT postemergence to sweet corn.

**Sprinkler Irrigation:** Do not apply Tremor ATZ Lite NXT through sprinkler irrigation systems unless otherwise directed by approved supplemental labeling in possession of the user at the time of application. A sprinkler system may be used to incorporate Tremor ATZ Lite NXT after application. After Tremor ATZ Lite NXT has been applied, a sprinkler irrigation system set to deliver 0.25 to 0.75 inch of water per acre may be used to incorporate the product. Using more than 0.75 inch of water could result in reduced performance. On sandy soils low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate Tremor ATZ Lite NXT.

#### **Planting**

Planting should be done as close to the time of application of Tremor ATZ Lite NXT as possible. This allows Tremor ATZ Lite NXT to provide effective weed control during the time it is most critical in the production of corn.

#### Cultivation

Cultivation should be delayed as long as possible. If weeds emerge, a shallow cultivation or rotary hoeing will generally result in improved weed control. If Tremor ATZ Lite NXT was incorporated, cultivate to a depth of less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

#### Soil Texture

The use rate of Tremor ATZ Lite NXT is determined by soil texture which must be determined prior to application. Soils are grouped into three textural classes (coarse, medium and fine), as outlined in Table 1.

Table 1: Soil Texture Groupings for Tremor ATZ Lite NXT Use Rate Selection.

Coarse	Medium	Fine
Sand	Loam	Silty Clay Loam
Loamy Sand	Silt Loam	Clay Loam
Sandy Loam	Silt	Sandy Clay
	Sandy Clay Loam	Silty Clay
		Clay

# **Use Rates for Conventional Tillage Systems**

#### Table 2: Tremor ATZ Lite NXT Use Rates by Soil Texture Content in Conventional Tillage Systems.

The following use rates are for preplant incorporated, preemergence, and early postemergence applications (see Application Timing and Methods). Apply this product before weeds reach the 2-leaf stage and the corn is no more than 11 inches in height. Consult Table 3 if reduced- or no-till applications are made or the product is applied more that 14 days prior to planting under conventional tillage.

Soil Texture	Broadcast Rate Per Acre (Quarts)*
Coarse	1.8
Medium	1.8 – 2.3
Fine	2.0 - 2.3

<sup>\*</sup>Use the higher rate in the rate range in areas of heavy weed infestation.

NOTE: In areas of heavy weed infestations, use up to 2.7 quarts per acre on medium- and fine-textured soils.

# Use Rates for Reduced Tillage Systems or Early Preplant Applications in Conventional Tillage Systems

Tremor ATZ Lite NXT may be used in reduced and no-till systems and in early preplant applications in conventional tillage systems. Single applications may be made up to 30 days prior to planting or after planting but before crop emergence. Optimal weed control will be obtained when applications are made as close to planting as possible but before crop emergence. If weeds are emerged at time of application, apply a labeled burndown herbicide such as Durango DMA, Gramoxone, or 2,4-D with Tremor ATZ Lite NXT.

Table 3: Tremor ATZ Lite NXT Use Rates\* (quarts/acre) by Soil Texture in Reduced and No-till Systems or Table 3: Tremor ATZ Lite NXT Use Rates by Soil Texture in Reduced and No-till Systems or Conventional Tillage Systems when Applications are made more than 14 days Prior to Planting

Soil Texture	Broadcast Rate Per Acre (Quarts)*	
Coarse**	1.8	
Medium	2.3	
Fine	2.3	

<sup>\*</sup>In areas of heavy weed infestation, use up to 2.7 quarts per acre on medium- and fine-textured soils. Rates are for single applications. Split applications may be used; apply 60% of the specified rate up to 45 days before planting and the remaining 40% at or immediately following planting but before crop emergence.

# **Band Applications**

For band applications, use row and bandwidth measurements (inches) to calculate the amount of Tremor ATZ Lite NXT to be applied per acre as follows:

<sup>\*\*</sup>Do not apply more than 14 days prior to planting on coarse textured soils.

#### Weeds Controlled

Tremor ATZ Lite NXT applied as directed in this label will provide control or partial control the weeds listed in Table 4. Additional weeds may be controlled with tank mixes. See the "Tank Mix Combinations" section of this label for tank mix directions. Always consult the tank mix product labels for specific use rates and directions. Always follow the most restrictive label when tank mixing Tremor ATZ Lite NXT with another product. Tremor ATZ Lite NXT may be tank mixed with any other registered corn product as long as compatibility is verified and it is not prohibited by the label of the tank mix product. Note: This product contains atrazine and thus may not control weeds that are known or suspected to be triazine resistant.

Table 4: Weeds Controlled or Partially Controlled by Tremor ATZ Lite NXT at Specified Use Rates.

	C = Control PC = Partial		C = Control PC = Partial
Grasses and Sedges	Control	Broadleaves	Control
barnyardgrass	С	beggarweed, Florida	С
crabgrass spp.	С	carpetweed	С
crowfootgrass	С	cocklebur (3)	С
cupgrass, southwestern	С	galinsoga	С
cupgrass, woolly (1)	С	groundcherry, annual	С
foxtail, giant	С	groundcherry, cutleaf	С
foxtail, green	С	henbit	С
foxtail, robust (purple, white)	С	jimsonweed	С
foxtail, yellow	С	kochia	С
goosegrass	С	lambsquarters, common	С
johnsongrass, seedling	PC	morningglory spp. (3)	С
millet, foxtail	С	mustard spp.	С
millet, wild proso	PC	nightshade, black	С
nutsedge , yellow (2,3)	С	nightshade, hairy	С
oat, wild	С	pigweed spp.	С
panicum, browntop	С	purslane, common	С
panicum, fall	С	pusley, Florida	С
panicum, Texas (4)	С	ragweed, common	С
rice, red	С	ragweed, giant	PC
sandbur, field	PC	sicklepod	С
shattercane	PC	sida, prickly	С
signalgrass, broadleaf (4)	С	smartweed spp.	С
sprangletop, red	С	sunflower, common	PC
wheat, volunteer	С	velvetleaf (3)	С
witchgrass	С	waterhemp, tall	С

- (1) Apply 2.7 quarts of Tremor ATZ Lite NXT per acre to control this weed; control can be erratic, especially under dry conditions. Control escaped weeds with cultivation or application of an appropriate registered postemergence herbicide.
- (2) Preplant incorporate for improved control.
- (3) Use the higher rate in the specified application rate range. Activity may be reduced under dry conditions or following early (more than 14 days) preplant applications. Additional atrazine and/or sequential herbicides may be needed for complete control.
- (4) Best control is achieved when Tremor ATZ Lite NXT is applied within 5 days of planting and rainfall occurs shortly after application or mechanical incorporation is used to activate the herbicide. If rainfall does not occur within 7 days after application, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, a cultivation or follow-up herbicide application may be needed.

#### Tank Mix Combinations

When tank mixing or sequentially applying atrazine or simazine or products containing either a.i. to corn, the total pounds of simazine and/or atrazine applied (lb ai/A) must not exceed 2.5 pounds of active ingredient per year.

For all applications, do not exceed the maximum rate of acetochlor as specified in the Maximum Acetochlor Application Rates Per Calendar Year section of this label.

# **Use of Spray Adjuvants**

Tremor ATZ Lite NXT is a preemergence herbicide for which spray adjuvants have little or no effect on performance. However, several herbicides used in tank mixtures with Tremor ATZ Lite NXT require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants specified on tank mix product labels and approved for agricultural crop use. Adjuvants and/or low rate liquid fertilizers (28%, 30% or 32% UAN) or ammonium sulfate (AMS) may be used with tank mixes applied preplant or preemergence to the crop. NOTE: Do not use liquid fertilizer as the carrier when Tremor ATZ Lite NXT is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Tremor ATZ Lite NXT tank mixes applied postemergence to corn under environmental stress conditions may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

# **Preemergence Tank Mix Combinations**

Tank mix combinations may be used in either conventional, reduced or no-till systems and be applied by the same methods and at the same timings as Tremor ATZ Lite NXT unless otherwise specified in the tank mix product label.

Tremor ATZ Lite NXT may be tank-mixed with Aim EC, atrazine, Balance Pro, Balance Flexx, Banvel, Callisto, Callisto Xtra, Clarity, Distinct, Durango DMA, Hornet WDG, Linex 4L, Lorox DF, Marksman, Princep, Python WDG, Resource, or 2,4-D for preemergence use in corn. Ensure that specific product being used in the tank mixture is registered for preemergence application to corn. Read and follow label directions of all products in the tank mixture; the most restrictive label directions apply. When tank mixing Tremor ATZ Lite NXT with atrazine, do not exceed the maximum allowable rate of atrazine in your county or state. In some atrazine management areas, atrazine is more restricted. Consult your county extension office or state university for further information.

#### **Conventional Tillage Corn (Tremor ATZ Lite NXT Plus):**

Tank Mix Herbicide †	Comments		
Atrazine 4L	<ul> <li>Preplant surface, preplant incorporated, preemergence. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> <li>Longer growing season areas</li> <li>High rainfall areas</li> <li>Heavy broadleaf weed pressure</li> </ul>		
Balance Pro	<ul> <li>Not labeled in all states; refer to the Balance Pro label for precautionary statements, use directions, and geographic and other restrictions</li> <li>For use in field corn only</li> <li>Refer to the use rates section of the Tremor ATZ Lite NXT label for minimum use rates</li> </ul>		
Hornet WDG	Tank mixing 3.0 – 4.0 oz/acre Hornet® WDG herbicide provides consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species. Will also provide improved control of cocklebur, common ragweed, giant ragweed, common sunflower and jimsonweed.		
Princep 4L	Provides improved crabgrass or fall panicum control.		
Python WDG	<ul> <li>Tank mixing 0.8 – 1.0 oz/acre Python® WDG herbicide provides consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species.</li> </ul>		
Surpass NXT	Tank mix 1 pt/acre for enhanced grass and nutsedge control		

<sup>&</sup>lt;sup>†</sup> Formulations that are not listed may be used: Perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions and limitations.

#### Reduced or No-Tillage Corn (Tremor ATZ Lite NXT Plus):

Tank Mix Herbicide †	Comments	
Atrazine 4L	Longer growing season areas	
	High rainfall areas	
	Heavy broadleaf weed pressure	
	<ul> <li>If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> </ul>	
Banvel/Clarity	Apply preplant or preemergence in reduced/ no-till systems for	
Marksman	burndown of existing weeds	
	<ul> <li>Preemergence on all soils; medium and fine textured with &gt;2% OM</li> </ul>	
Durango DMA,	Burndown existing weeds	
Roundup		
WeatherMAX,		
Touchdown		
Gramoxone Inteon	Control annuals, suppress perennials	
Pendimax® / Prowl	<ul> <li>Preemergence to early postemergence (up to 3" tall corn) but before weeds are more than 1" tall.</li> </ul>	
Princep 4L	Provides improved crabgrass or fall panicum control	
Surpass NXT	Enhanced grass and nutsedge control	
2,4-D	Burndown existing weeds	

<sup>&</sup>lt;sup>†</sup> Formulations that are not listed may be used: Perform compatibility test and check the product label for directions and precautions.

#### **Tremor ATZ Lite NXT plus Burndown Herbicide Tank Mixtures**

In reduced or no-tillage corn, Durango DMA, Roundup WeatherMAX, Gramoxone Inteon, Touchdown, and/or 2,4-D can be tank mixed with Tremor ATZ Lite NXT to burn down existing weeds. Burndown herbicides should be applied to emerged weeds when they are small; weeds less than 6 inches in height are easiest to control. Consult the burndown product labels for further information on weeds controlled.

# **Postemergence Tank Mix Combinations**

Tremor ATZ Lite NXT may be applied before, with, or following the use of one or more of the following herbicides for postemergence use in corn: Accent, Aim EC, atrazine, Balance Flexx, Banvel, Basis, Basis Gold, Beacon, Buctril, Buctril/atrazine, Callisto, Callisto Xtra, Capreno, Clarity, Distinct, Hornet WDG, Impact, Laudis, Liberty, Lightning, Linex 4L, Lorox DF, Marksman, Peak, Permit, Princep, Prowl, Pendimax, Pursuit, Resource, Spirit, Status, Steadfast, or 2,4-D. Refer to the tank mix product label(s) regarding use directions, precautions and restrictions, and the list of weeds controlled. Tremor ATZ Lite NXT may be tank mixed with any product approved for use on corn unless it is prohibited on the tank mix product label. Ensure that specific product being used in the tank mixture is registered for postemergence application to corn. Read and follow label directions of all products in the tank mixture; the most restrictive label directions apply. **Note:** DO NOT use liquid fertilizer as the carrier when Tremor ATZ Lite NXT is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Tremor ATZ Lite NXT tank mixes applied postemergence to corn under environmental stress conditions may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

When tank mixing, refer to the tank mix product label and follow the additional use directions given in the following table. Tremor ATZ Lite NXT can be applied to corn up to 11" tall.

#### Postemergence Tank Mixes (Tremor ATZ Lite NXT Plus):

Tank Mix Herbicide	Rate	Comments
Hornet WDG	2-5 oz/acre	Always add NIS at 0.25% v/v or COC at 1% v/v.
Aim herbicide	0.3 oz/acre	Always add a NIS at 0.25% v/v.
Banvel Clarity Marksman	0.5 - 1.0 pt/acre 0.5 - 1.0 pt/acre 2 - 3.5 pt/acre	Early postemergence up to 8" tall corn on all soils. If grasses are more than 2- leaf stage, combine with another herbicide to control these weeds.
Buctril	1.5 pt/acre	Refer to product label for use directions.

Buctril/atrazine Shotgun herbicide	2.0 pt/acre 2 - 3 pt/acre	Refer to label for Shotgun herbicide for timing and use directions.
Atrazine	0.5 - 2.0 lb ai/acre	Preplant surface, preplant incorporated, preemergence or early postemergence (up to 8" tall corn). If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide. Note: The maximum atrazine application rate for corn is 2.5 pounds atrazine active ingredient per acre per calendar year.
Distinct	4.0 - 6.0 oz/acre	<ul> <li>Always add a NIS at 0.25% v/v and 1.25% UAN.</li> <li>Can be applied up to 10-inch corn.</li> </ul>
Liberty	16 - 28 oz/acre	For use on liberty tolerant corn only. Apply to grass and broadleaves up to 6" tall. Do not add additional surfactant.
Lightning	1.28 oz/acre	• For use on Clearfield corn only. Use a NIS at 25%v/v and a liquid nitrogen fertilizer at 1 - 2 qt per acre or ammonium sulfate at 2.5 lb per acre.
Pendimax / Prowl	1.8 - 3.6 pt/acre	Preemergence to early postemergence (up to 3" tall corn) but before weeds are more than 1" tall.
Pursuit 2.5L Pursuit 70DG	4.0 fl oz/acre 1.4 fl oz/acre	<ul> <li>Use only on Clearfield varieties.</li> <li>Apply preplant surface, preplant incorporated, preemergence or early postemergence (up to 3" tall weeds).</li> </ul>
Resource	4.0 - 6.0 oz/acre	Apply to weeds less than 5" tall. Add a crop oil concentrate at 1 - 2 pt/acre and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lb/acre. May cause some burn or spotting to corn leaves.
Spirit	1.0 oz/acre	<ul> <li>Always add crop oil concentrate at 1% v/v.</li> <li>See label for geographic restrictions.</li> </ul>
2,4-D Ester	See Label	Apply preplant surface or preemergence to control emerged broadleaf weeds in corn.
Accent 75WDG Beacon 75WDG Basis Steadfast	1/4 - 2/3 oz/acre 0.76 oz/acre 1/4 - 2/3 oz/acre 0.75 oz/acre	Minimum Tremor ATZ Lite NXT use rates (qts/acre): Soil Coarse 1.8 Medium 1.8 Fine 2.0 Always add NIS at .25% (v/v); and in addition if applied in dry conditions, add 4% (v/v) clear liquid fertilizer. Banvel, Clarity, Marksman, Buctril, Buctril/atrazine may be added to this mixture to provide burndown and residual control of broadleaf weeds.
Basis Gold	14.0 oz/acre	Minimum Tremor ATZ Lite NXT use rates (qts/acre): Soil Coarse 1.8 Medium 1.8 Fine 2.0 Always add crop oil concentrate at 1.0% v/v or under dry arid conditions, 2.0% v/v and 28% liquid nitrogen at 2 qt/acre or ammonium sulfate at 2 lb/acre. Banvel, Clarity, Marksman, Buctril, or Tough

herbicide may be added to this mixture to
provide burndown and residual control of
broadleaf weeds.

## Appendix I

Procedure for Testing the Compatibility of Tremor ATZ Lite NXT and Tank Mixes with Fluid Fertilizers.

Since fluid fertilizers vary, the following procedure is suggested for determining whether Tremor ATZ Lite NXT may be combined with a specific fluid fertilizer for spray tank application.

#### Materials Needed:

- Tremor ATZ Lite NXT and any tank mix products.
- Fluid fertilizer to be used.
- Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the compatibility of Tremor ATZ Lite NXT with fluid fertilizers. The adjuvant that provides the best emulsification depends on the specific fertilizer under consideration.
- Two 1 quart, wide mouth glass jars with lid or stopper.
- Measuring spoons (a 25 ml pipette or graduated cylinder provides more accurate measurement).
- Measuring cup, 8 ounces (257 ml).

#### Procedure:

- 1. Pour a pint (about 473 ml) of the fluid fertilizer into each of the quart jars.
- 2. Add Tremor ATZ Lite NXT and any tank mix combination to the jars. The order of addition is wettable powders first with mixing, followed by flowables with mixing and the EC's last. The rate of wettable powders and dry flowables is 1½ teaspoon per pound of product per acre to be applied. EC's should be added at the rate of ½ teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1 ounce of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
- 3. Add 1/2 teaspoon (2 ml) adjuvant to one of the jars, label it as "with", and mix. The rate of ½ teaspoon per pint is equal to 3 pints of adjuvant per 100 gallons of fluid fertilizer.
- 4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down ten times.
- 5. Inspect the surface and body of the mixtures:
  - (a) Immediately after completing the jar inversions
  - (b) After allowing the jars to stand quietly for 30 minutes
  - (c) And then again after turning the jars upside down 10 times after the 30 minute inspection

#### **Evaluation:**

If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the mixture without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using only moderate agitation. If non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.

#### Appendix II

#### **Dry Bulk Fertilizer Impregnation**

Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 340 tons of bulk fertilizer can be impregnated per worker per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.

The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the user (applicator) of the dry bulk fertilizer that:

- Applicator must wear long-sleeved shirt, long pants, shoes, and socks.
- The restricted entry interval is 12 hours.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the Tremor ATZ Lite NXT or Tremor ATZ Lite NXT plus atrazine.

Dry bulk fertilizers (Table 5) may be impregnated with this product or the tank mixtures of this product plus atrazine on corn. This product and these tank mixtures must be applied with 200 to 450 pounds of dry bulk fertilizer per acre and shallowly incorporated within 14 days prior to planting. On medium- and fine-textured soils in areas where incorporation is not planned (i.e., reduced tillage situations or in some conventional tillage situations), applications can be made up to 30 days before planting to allow moisture to move the herbicide-fertilizer mixture into the soil. On coarse-textured soils, applications can be made up to 14 days prior to planting. When applying Tremor ATZ Lite NXT alone or in tank mixes with dry bulk fertilizers, follow all directions for use and precautions on the respective tank mix product labels regarding rates, soil type, application methods and rotational restrictions. Refer to the table for broadcast rate per acre to determine the application rate per acre for the herbicide treatment to be applied.

<b>Table 5:</b> Approved Dr	y Fertilizer Ingredients fo	or Use with	Tremor ATZ Lite NXT.

Fertilizer	N	Р	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea <sup>†</sup>	45	0	0

<sup>&</sup>lt;sup>†</sup> Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

For impregnating the pesticides on dry fertilizers, use an appropriate mixer equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. The Tremor ATZ Lite NXT should be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly. Tremor ATZ Lite NXT may also be impregnated on the go and applied with pneumatic applicators.

The following table provides a reference to determine the amount of Tremor ATZ Lite NXT to be mixed per ton of dry bulk fertilizer for a range of herbicide and fertilizer rates per acre.

Table 6. Tremor ATZ Lite NXT Fertilizer Impregnation Rate Conversions.

Fertilizer Rate (lbs/acre)	Acres Covered (per	Quarts of Tremor ATZ Lite NXT per Ton of Fertilizer to Deliver:			
	ton)	1.5 qts/acre 1.8 qts/acre 2.3 qts/acre			
200	10.0	15.0	18.0	23.0	
250	8.0	12.0	14.4	18.4	
300	6.7	10.1	12.1	15.4	
350	5.7	8.6	10.3	13.1	
400	5.0	7.5	9.0	11.5	
450	4.5	6.8	8.1	10.4	

To determine the amount of Tremor ATZ Lite NXT needed for other fertilizer rates, use the following formula:

<u>Tremor ATZ Lite NXT rate (quarts/acre) X 2000</u> = Quarts of Tremor ATZ Lite NXT per ton of fertilizer

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Micro-Cel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent. Mixtures to be used in pneumatic applicators should use Micro-Cel E or Agsorb 16/30 RVM-MS granular clay (Oil-Dri Corporation). The drying agents should be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Micro-Cel E or

5% Agsorb 16/30 RVM-MS by weight is required.

**Precaution:** To avoid potential for explosion, do not impregnate Tremor ATZ Lite NXT on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on single (0-20-0) or triple (0-46-0) super phosphate. Do not impregnate on agricultural limestone because the Tremor ATZ Lite NXT will not be absorbed.

# Storage and Disposal

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

**Pesticide Storage:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

# Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

# Refillable containers larger than 5 gallon:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### Nonrefillable containers larger than 5 gallons:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tan or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THE NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

Tremor® is a registered trademark of Winfield Solutions, LLC