

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 11, 2019

Matthew Flanery Regulatory Specialist Syngenta Crop Protection, LLC. P.O. Box 18300 Greensboro, NC 27419

Subject: Label Amendment - Revised Resistance Management Language

Product Name: THX/MXM/FDL CZ EPA Registration Number: 100-1283 Application Date: February 14, 2018

Decision Number: 541649

Dear Mr. Flanery:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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 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.

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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Kevin Ulrich by phone at 703-347-0464, or via email at ulrich.kevin@epa.gov.

Sincerely,

Venus Eagle, Product Manager 01 Invertebrate and Vertebrate Branch 3 Registration Division (7505P) Office of Pesticide Programs

Enclosure: Stamped label

# [Master Label]

THIAMETHOXAM	GROUP	4A	INSECTICIDE
MEFENOXAM	GROUP	4	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

#### THX/MXM/FDL CZ

[Alternate Brand Name: Adage™ ST]

# **Insecticide with Fungicides**

A seed treatment product for protection against damage from listed insects, seed-borne diseases, and seedling diseases on soybean

Active Ingredients:	
Thiamethoxam*	21.50 %
Mefenoxam**	3.21 %
Fludioxonil***	1.07 %
Other Ingredients:	74.22 %
Total:	100 00 %

<sup>\*</sup>CAS No. 153719-23-4

One gallon of THX/MXM/FDL CZ [Adage™ ST] contains 2.06 lb thiamethoxam, 0.31 lb mefenoxam and 0.10 lb fludioxonil.

#### KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use in booklet [on label].

EPA Reg. No. 100-1283

EPA Est. XXXXX

**Net Contents** [Batch Code: ] (For non-refillables only)

A	C	C	E	P	T	E	D
	^	71	4 4	10	<b>Λ</b> 4	$\circ$	

07/11/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1283

<sup>\*\*</sup>CAS No. 70630-17-0 and CAS No. 69516-34-3

<sup>\*\*\*</sup>CAS No. 131341-86-1

FIRST AID				
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			

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

# HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call

1-800-888-8372

#### PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

#### CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### **Personal Protective Equipment (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Shoes plus socks

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

## **Engineering Control Statements**

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **Environmental Hazards**

This product is toxic to wildlife, freshwater and estuarine/marine fish and highly toxic to aquatic invertebrates. Runoff may be hazardous to aquatic organisms in neighboring areas. Exposed treated seed may be hazardous to wildlife. Cover seed spilled during loading. Do not contaminate water when disposing of equipment washwater or rinsate.

#### **Pollinator Precautions**

Thiamethoxam is highly toxic to bees exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.

#### **Groundwater Advisory**

Thiamethoxam has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow. Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow. Mefenoxam is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### **Physical and Chemical Hazards**

Do not use, pour, spill or store near heat or open flame.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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

# **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Maximum usage when applying metalaxyl- and mefenoxam-containing products to the same crop within the same season: Do not apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

#### 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 restrictedentry interval (REI) of 48 hours. Exception: If the seed is treated with the product and the treated seed 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
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) > 14 mils, or Viton® > 14 mils
- Shoes plus socks

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

Treatment of highly mechanically scarred or damaged seed or seed known to be of low vigor and poor quality may result in reduced germination and/or reduction of seed and seedling vigor. Treat a quantity of seed using equipment similar to that planned for treating the total seed lot. Prior to treatment, conduct germination tests on a portion of seed before committing the total seed lot to a selected seed treatment.

Due to seed quality, crop or variety sensitivity, and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of seed or propagating material for all crop seed when treated with THX/MXM/FDL CZ [Adage ST].

#### **USE INFORMATION**

THX/MXM/FDL CZ [Adage ST] is a seed treatment product containing the active ingredients: thiamethoxam (insecticide) and fludioxonil and mefenoxam (fungicides). THX/MXM/FDL CZ [Adage ST] protects against damage from listed early season insects, soil-borne and seed-borne diseases of soybeans.

Thiamethoxam is a systemic seed treatment insecticide belonging to the neonicotinoid class of chemistry. Thiamethoxam protects against certain chewing and sucking insects through contact and ingestion.

Mefenoxam fungicide is active against *Pythium*, *Phytophthora* and systemic downy mildew.

Fludioxonil fungicide is active against *Fusarium*, *Rhizoctonia*, and suppresses seedborne *Sclerotinia* and *Phomopsis species*.

#### MIXING PROCEDURES

**Important:** Always re-circulate THX/MXM/FDL CZ [Adage ST] thoroughly before using.

The typical density of THX/MXM/FDL CZ [Adage ST] is 9.6 pounds per gallon. Consult the manufacturer of the application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment. Follow the manufacturer application instructions for the seed treatment equipment being used.

Apply THX/MXM/FDL CZ [Adage ST] as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control.

Thoroughly mix the specified amount of THX/MXM/FDL CZ [Adage ST] into the required amount of water or liquid inoculant for the slurry treater and dilution rate to be used.

Certain crops require addition of inoculants when the seed is treated or planted. THX/MXM/FDL CZ [Adage ST] is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta Crop Protection representative for directions before applying THX/MXM/FDL CZ [Adage ST] with inoculants.

Under certain disease conditions, additional amounts of fungicides may be required. When needed, apply additional Apron XL® or similar fungicide. Other tank mix partners may be used with THX/MXM/FDL CZ [Adage ST]; however, the user must consider the use rate, formulation, seed and crop safety factors and compatibility of each product to be mixed when determining the total application volume.

The total application volume must be sufficient to provide desired level of coverage. Dilution is typically done with water or liquid inoculants. The minimum slurry volume to achieve adequate coverage is 4.0 fluid ounces per 100 pounds of seed. More diluent may be required to obtain complete coverage.

Continuous agitation or mixing of the slurry mixture is necessary to prevent settling out of the solution.

Allow seed to dry before bagging.

Follow planter manufacturer recommendations for use of seed lubricant/fluency agent, or other hopper box additives at planting. Seed should be completely dry before adding to planter.

Seed treated with this product must be visually identifiable from untreated seed by the use of an approved colorant or dye to prevent accidental use of treated seed as food for humans or feed for animals. Refer to 21 CFR, Part 2.25. Any colorant or dye added to treated seed must be cleared for use in accordance with 40 CFR 153.155(c).

#### ROTATIONAL CROP RESTRICTIONS

In the event of a crop failure or harvest of a crop grown from THX/MXM/FDL CZ [Adage ST] treated seed, the field may be replanted immediately to alfalfa, *Brassica* (cole) leafy vegetables, cereal grains (including barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice (dry-seeded), rye, sorghum, teosinte, triticale, wheat and wild rice), canola, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (including soybeans), mint (peppermint and spearmint), oil seed crops (rapeseed, Indian rapeseed, Indian mustard seed, field mustard seed, black mustard seed, flax seed, safflower seed, crambe seed and borage seed),

peanuts, root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables.

For any other crop, the minimum plant-back interval is 120 days from the date THX/MXM/FDL CZ [Adage ST] treated seed was planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement may be planted sooner than the 120 day interval; however, the crop may not be grazed or harvested for food or feed.

#### SEED BAG LABEL REQUIREMENTS

The Federal Seed Act requires that bags containing treated seeds shall be labeled with the following statements:

- This seed has been treated with thiamethoxam insecticide and fludioxonil and mefenoxam fungicides.
- **Do not** use for feed, food, or oil purposes.
- User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with THX/MXM/FDL CZ [Adage ST]:

- Groundwater Advisory: Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil and Thiamethoxam have properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- Pollinator Precautions: Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.
- Store away from feeds and foodstuffs.
- Wear long-sleeved shirt, long pants and chemical resistant gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements.
- **Do not** contaminate water bodies when disposing of planting equipment wash waters.
- Dispose of seed packaging in accordance with local requirements.
- In the event of a crop failure or harvest of a crop grown from THX/MXM/FDL CZ [Adage ST] treated seed, the field may be replanted immediately to alfalfa, *Brassica* (cole) leafy vegetables, cereal grains (including barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice (dry-seeded), rye, sorghum,

teosinte, triticale, wheat and wild rice), canola, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (including soybeans), mint (peppermint and spearmint), oil seed crops (rapeseed, Indian rapeseed, Indian mustard seed, field mustard seed, black mustard seed, flax seed, safflower seed, crambe seed and borage seed), peanuts, root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables. For any other crop, the minimum plant-back interval is 120 days from the date THX/MXM/FDL CZ [Adage ST] treated seed was planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement may be planted sooner than the 120 day interval; however, the crop may not be grazed or harvested for food or feed.

- **Do not** allow children, pets, or livestock to have access to treated seed.
- Do not apply more than 0.083 lb thiamethoxam/Acre (37.8 grams ai/A), 0.026 lb mefenoxam/Acre (12 grams ai/A), and 0.0085 lb fludioxonil/A (3.9 grams ai/A) as a seed treatment application. This seed has been treated with thiamethoxam at 0.0756 mg ai/seed, mefenoxam at 0.0113 mg ai/seed and fludioxonil 0.0038 mg ai/seed.
- **Do not** apply a neonicotinoid insecticide within 45 days of planting soybean seed treated with THX/MXM/FDL CZ [Adage ST].
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in the ethanol by- products that are used in agronomic practice.

## **CROP USE RESTRICTIONS**

- **Do not** use for feed, food, or oil purposes.
- **Do not** contaminate water bodies when disposing of planting equipment wash waters.
- **Do not** allow children, pets, or livestock to have access to treated seed.
- Do not apply more than 0.083 lb thiamethoxam/Acre (37.8 grams ai/A), 0.026 lb mefenoxam/Acre (12 grams ai/A), and 0.0085 lb fludioxonil/A (3.9 grams ai/A) as a seed treatment application. This seed has been treated with thiamethoxam at 0.0756 mg ai/seed, mefenoxam at 0.0113 mg ai/seed and fludioxonil 0.0038 mg ai/seed.
- Do not apply a neonicotinoid insecticide within 45 days of planting soybean seed treated with THX/MXM/FDL CZ [Adage ST].

#### **CROP USE PRECAUTIONS**

#### **Resistance Management**

MEFENOXAM	GROUP	4	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

For resistance management, please note that THX/MXM/FDL CZ [Adage ST] contains Group 4/mefenoxam and Group 12/fludioxonil fungicides. Any fungal population may contain individuals naturally resistant to THX/MXM/FDL CZ [Adage ST] and other Group 4 or Group 12 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Mefenoxam belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Fludioxonil belongs to the phenylpyrrole class of chemistry which interferes with osmotic signal transduction.

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

- Rotate the use of THX/MXM/FDL CZ [Adage ST] or other Group 4 or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

Syngenta encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

# THIAMETHOXAM GROUP 4A INSECTICIDE

For resistance management, THX/MXM/FDL CZ [Adage ST] contains a Group 4A/thiamethoxam insecticide. Any insect population may contain individuals naturally resistant to THX/MXM/FDL CZ [Adage ST] and other Group 4A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Thiamethoxam is a systemic insecticide belonging to the neonicotinoid class of chemistry which includes nicotinic acetylcholine receptor (nAChR) agonists.

To delay insecticide resistance, take the following steps:

- Rotate the use of THX/MXM/FDL CZ [Adage ST] or other Group 4A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

 Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

#### For additional information on Insecticide Resistance Management:

- Contact Syngenta representatives at 1-800-334-9481
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: <a href="http://www.irac-online.org">http://www.irac-online.org</a>

Syngenta encourages responsible product stewardship to ensure effective long-term control of the insect pests on this label.

#### **CROP USE DIRECTIONS**

When applied according to the **THX/MXM/FDL CZ [Adage ST] RATE TABLE**, THX/MXM/FDL CZ [Adage ST] provides early season protection against injury by aphids, bean leaf beetle, grape colaspis, leaf miners, leaf hoppers, Mexican bean beetle, seed corn maggot, three cornered alfalfa hopper, thrips, white grubs, and wireworm.

THX/MXM/FDL CZ [Adage ST] provides protection against damping-off and seed borne rots due to *Pythium*, *Phytophthora*, *Fusarium*, *Rhizoctonia* species and early season *Phytophthora* root rot. THX/MXM/FDL CZ [Adage ST] also suppresses seed-borne *Sclerotinia* and *Phomopsis* species.

THX/MXM/FDL CZ [Adage ST] Rate table<sup>1</sup>

Rate of THX/MXM/FDL CZ [Adage ST]			
fl oz per 100 lb seed or fl oz per 140,000 seeds	grams ai per 100 kg seed	mg ai per seed	
1 fl oz per 100 lb seed 45 fl oz per 140,000 seeds	Thiamethoxam 50 gm  Mefenoxam 7.50 gm  Fludioxonil 2.5 gm	Thiamethoxam 0.0756 mg  Mefenoxam 0.0113 mg  Fludioxonil 0.0038 mg	
	100 lb seed or fl oz per 140,000 seeds fl oz per 100 lb seed	100 lb seed grams ai per 100 kg seed  fl oz per 140,000 seeds  Thiamethoxam 50 gm  Mefenoxam 7.50 gm  Fludioxonil	

<sup>&</sup>lt;sup>1</sup>The mg ai per seed, fl oz per 100 lb seed and fl oz THX/MXM/FDL CZ [Adage ST] per 140,000 seeds rates are based on 3,000 seeds per pound.

#### When to Add Additional Apron XL or similar fungicide:

If target fields have a history of high *Phytophthora* pressure, add additional Apron XL (or similar fungicide) as directed in the product label. The additional Apron XL may reduce compatibility with some rhizobia inoculants. Consult with the maker of rhizobia inoculants before adding the additional Apron XL.

#### **Stored Grain Protection**

When treated according to the directions for post-planting protection against listed pests, THX/MXM/FDL CZ [Adage ST] will also provide protection during post treatment storage of the soybean seed against damage from the following stored grain insects: Indian Meal Moth (*Plodia interpunctella*), Rice Weevil (*Sitophilus oryza*), Red Flour Beetle (*Tribolium castaneum*), and Lesser Grain Borer (*Rhizopertha dominica*).

If the soybean seed to be treated has existing infestations of stored grain insects, it is recommended that the seed be fumigated prior to treating with THX/MXM/FDL CZ [Adage ST] and bagging.

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Store in a cool, dry place. Storage for extended periods above 90°F is not recommended.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

#### **Pesticide Disposal**

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

#### Container Handling [less than or equal to 5 gallons]

**Non-refillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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 by other procedures approved by state and local authorities.

# **Container Handling [greater than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

# **Container Handling [greater than 5 gallons]**

**Refillable container**. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling.

To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, North Carolina 27419-8300

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