



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

August 23, 2022

Ricky Kyaw  
Regulatory Product Manager  
Syngenta Crop Protection, Inc.  
PO Box 18300  
Greensboro, NC 27419

Subject: Registration Review Label Mitigation for Fludioxonil, Mefenoxam and Azoxystrobin  
Product Name: FOUR-WAY VAP  
EPA Registration Number: 100-1384  
Application Dates: 07/31/2018, 02/01/2019, and 05/17/2019  
Decision Numbers: 568106, 586984 and 586996

Dear Ricky Kyaw:

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 Fludioxonil, Mefenoxam and Azoxystrobin Interim Decisions, and 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 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 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.

Page 2 of 2  
EPA Reg. No. 100-1384  
Decision No. 568106, 586984 and 586996

If you have any questions about this letter, please contact Srijana Shrestha by phone at 202-566-2329, or via email at [shrestha.srijana@epa.gov](mailto:shrestha.srijana@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to be "Linda Arrington", with a stylized flourish at the end.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure: Stamped Label

(Master label)

<b>THIAMETHOXAM</b>	<b>GROUP</b>	<b>4A</b>	<b>INSECTICIDE</b>
<b>MEFENOXAM</b>	<b>GROUP</b>	<b>4</b>	<b>FUNGICIDE</b>
<b>AZOXYSTROBIN</b>	<b>GROUP</b>	<b>11</b>	<b>FUNGICIDE</b>
<b>FLUDIOXONIL</b>	<b>GROUP</b>	<b>12</b>	<b>FUNGICIDE</b>

**Four-way VAP™**

Insecticide with Three Fungicides

A seed treatment product for protection against damage from listed insects, seed-borne diseases, and seedling diseases on legume vegetables (including soybeans)

Active Ingredients:

Thiamethoxam*	22.60%
Mefenoxam**	1.70%
Fludioxonil***	1.12%
Azoxystrobin****	0.90%
<hr/>	
Other Ingredients:	73.68%
<hr/>	
Total:	100.00%

\*CAS No. 153719-23-4

\*\*CAS No. 70630-17-0 and CAS No. 69516-34-3

\*\*\*CAS No. 131341-86-1

\*\*\*\*CAS No. 131860-33-8

One gallon of Four-way VAP contains 2.13 lb. thiamethoxam, 0.16 lb. mefenoxam, 0.11 lb. fludioxonil and 0.08 lb. azoxystrobin.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

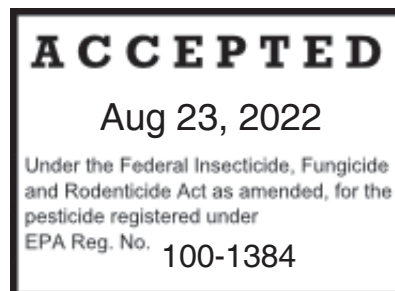
See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1384

EPA Est. XXXXX

SCP 1384-MAS 0812

\_\_\_\_\_  
Net Contents



<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• 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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably 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.	
<b>HOTLINE NUMBER</b> 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**

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

### **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  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride [PVC]  $\geq 14$  mils or Viton®  $\geq 14$  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. Do not contaminate water when disposing of equipment wash water.

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. Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water 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 agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Azoxystrobin in this product can be persistent for several months or longer. Azoxystrobin degradation products and thiamethoxam have properties and characteristics similar to chemicals which are known to leach through soil to groundwater under certain conditions as a result of agricultural use. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### 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 both 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 restricted-entry 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  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride [PVC]  $\geq 14$  mils or Viton  $\geq 14$  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 Four-way VAP.

---

**USE INFORMATION**

---

Four-way VAP is a seed treatment product containing the active ingredients: thiamethoxam (insecticide) and azoxystrobin, fludioxonil and mefenoxam fungicides. Four-way VAP protects against damage from listed early season insects, soil-borne and seed-borne diseases of crop plants.

Thiamethoxam is a systemic seed treatment insecticide belonging to the neonicotinoid class of chemistry. Thiamethoxam protects against listed 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 seed-borne *Sclerotinia* and *Phomopsis* species.

Azoxystrobin is active against *Rhizoctonia* and some seed-borne diseases.

---

**MIXING PROCEDURES**

---

**Important:** Always re-circulate Four-way VAP thoroughly before using.

Apply Four-way VAP 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 Four-way VAP 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. Four-way VAP is compatible with several liquid inoculant products. Consult the maker of the

inoculant product and a Syngenta Crop Protection representative for directions before applying Four-way VAP with inoculants.

Under certain disease conditions, additional amounts of fungicides may be required. When needed, apply additional Apron XL® according to the **CROP USE DIRECTIONS**. Other tank mix partners may be used with Four-way VAP; 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.

The typical density of Four-way VAP is 9.43 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.

Follow planter manufacturer specifications for use of talc or other hopper box additives at planting. Seed must be completely dry before adding to planter.

Four-way VAP contains an EPA approved dye/colorant that imparts an unnatural color to the seed as stated in 40 CFR 153.155 (c).

---

## **USE RESTRICTIONS**

---

- Store away from feed 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.
- Do not contaminate water bodies when disposing of planting equipment wash waters.
- Dispose of seed packaging in accordance with local requirements.
- Forage may not be grazed until 30 days after planting.
- Do not allow children, pets, or livestock to have access to treated seed.
- 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.
  - 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 ethanol by-products that are used for agronomic practice.
- Do not use at a rate that will result in more than 0.266 lb. thiamethoxam per acre (120.66 grams a.i./A) per year.
- **DO NOT** apply more than 0.25 lb ai/Acre (115 g ai/Acre) per calendar year of mfenoxam- or metalaxyl-containing products as a seed treatment on Legume Vegetables.
- **DO NOT** apply more than 0.052 lb ai/Acre (23 g ai/Acre) per calendar year of mfenoxam- or metalaxyl-containing products as a seed treatment on Soybean.
- With the exception of soybeans, do not make any soil or foliar application of products containing thiamethoxam to crops grown from seed treated with Four-way VAP. For soybeans, do not apply a neonicotinoid insecticide within 45 days of planting seed treated with Four-way VAP.

---

## **ROTATIONAL RESTRICTIONS**

---

In the event of a crop failure or harvest of a crop grown from Four-way VAP 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), 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 Four-way VAP 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

---

Federal law requires that bags containing treated seeds shall be labeled with the following statements:

- This seed has been treated with thiamethoxam insecticide and azoxystrobin, 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 Four-way VAP:

- **Ground Water Advisory:**  
Thiamethoxam and fludioxonil have properties and characteristics associated with chemicals detected in ground water. These chemicals may leach into the ground water 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 agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.  
Azoxystrobin in this product can be persistent for several months or longer. Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to groundwater under certain conditions as a result of agricultural use. Use of azoxystrobin in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.
- **Pollinator Precautions:** Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.
- 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 ethanol by-products that are used for agronomic practice.
- Store away from feed 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.
- 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 Four-way VAP 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), 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 Four-way VAP 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.

- Forage may not be grazed until 30 days after planting.
- Do not allow children, pets, or livestock to have access to treated seed.
- 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 use at a rate that will result in more than 0.266 lb. thiamethoxam per acre (120.66 grams a.i./A) per year.
- This seed has been treated with \_\_\_mg ai thiamethoxam per seed.
- **DO NOT** apply more than 0.25 lb ai/Acre (115 g ai/Acre) per calendar year of mfenoxam- or metalaxyl-containing products as a seed treatment on Legume Vegetables.
- **DO NOT** apply more than 0.052 lb ai/Acre (23 g ai/Acre) per calendar year of mfenoxam- or metalaxyl-containing products as a seed treatment on Soybean.
- With the exception of soybeans, do not make any soil or foliar application of products containing thiamethoxam to crops grown from seed treated with Four-way VAP. For soybeans, do not apply a neonicotinoid insecticide within 45 days of planting seed treated with Four-way VAP.

---

## CROP USE PRECAUTIONS

---

### Resistance Management

<b>MEFENOXAM</b>	<b>GROUP</b>	<b>4</b>	<b>FUNGICIDE</b>
<b>AZOXYSTROBIN</b>	<b>GROUP</b>	<b>11</b>	<b>FUNGICIDE</b>
<b>FLUDIOXONIL</b>	<b>GROUP</b>	<b>12</b>	<b>FUNGICIDE</b>

For resistance management, please note that Four-way VAP contains Group 4/mefenoxam, Group 11/azoxystrobin, and Group 12/fludioxonil fungicides. Any fungal population may contain individuals naturally resistant to Four-way VAP and other Group 4, Group 11, 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. Azoxystrobin belongs to the strobilurin class of chemistry which disrupts cellular respiration and energy generation. 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 Four-way VAP or other Group 4, Group 11, or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides 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 crops 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.

<b>THIAMETHOXAM</b>	<b>GROUP 4A</b>	<b>INSECTICIDE</b>
---------------------	-----------------	--------------------

Four-way VAP contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by Four-way VAP or other Group 4A insecticides.

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

**In order to maintain susceptibility to this class of chemistry:**

- Avoid using Group 4A insecticides exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply Four-way VAP or other Group 4A insecticides using a “treatment window” approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (seed treatment, soil, foliar, unless otherwise stated in the Directions for Use) of the Group 4A insecticides. Do not exceed the maximum Four-way VAP allowed per growing season.
- Following a treatment window of Group 4A insecticides, rotate to a treatment window of effective products with a different mode of action before making additional applications of Group 4A insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use area, is considered an effective strategy for preventing or delaying a pest’s ability to develop resistance to this class of chemistry.
- If resistance is suspected, do not reapply Four-way VAP or any other Group 4A insecticides.

**Other Insect Resistance Management (IRM) practices include:**

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

**For additional information on Insect Resistance Management:**

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.

- Visit the Insecticide Resistance Action Committee (IRAC) on the web at:  
<http://www.irac-online.org/>.

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



---

## **CROP USE DIRECTIONS**

---

When applied according to the **FOUR-WAY VAP RATE TABLE**, Four-way VAP provides early season protection against injury by aphids, bean leaf beetle, grape colaspis, leaf miners, leaf hoppers, Mexican bean beetle, seed corn maggot, threecornered alfalfa hopper, thrips, white grubs, and wireworm.

Four-way VAP provides protection against damping-off and seed borne rots due to *Pythium*, *Phytophthora*, *Fusarium*, *Rhizoctonia* species and early season *Phytophthora* root rot. Four-way VAP also suppresses seed-borne *Sclerotinia* and *Phomopsis* species.

### **Legume Vegetable Group**

**Bean (All *Lupinus* species)** (includes grain, sweet, white, white sweet lupin).

**Bean (All *Phaseolus* species)** (includes black bean, cranberry bean, field bean, great Northern bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, small red bean, snap bean, tepary bean, wax bean, yellow bean)

**Bean (All *Vigna* species)** (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean)

**Broad bean (fava bean)**

**Chickpea (garbanzo bean)**

**Guar**

**Jackbean**

**Lablab bean (hyacinth bean)**

**Lentil**

**Pigeon pea**

**Soybean** (including soybean, vegetable)

**Sword bean**

### **When to add additional Apron XL:**

If target fields have a history of high *Phytophthora* pressure, add additional Apron XL as directed in the rate table and the Apron XL 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.

**FOUR-WAY VAP RATE TABLE-LEGUME VEGETABLES\***

Crop	Rate of Four-way VAP		Additional Apron XL	
	fl oz per 100 lb seed	grams ai per 100 kg seed	fl oz per 100 lb seed	grams ai per 100 kg seed
<b>Bean (All <i>Lupinus</i> species) including:</b> grain sweet white white sweet lupin <b>Bean (All <i>Phaseolus</i> species) including:</b> black bean cranberry bean field bean great Northern bean kidney bean lima bean navy bean pinto bean runnerbean snap bean small red bean tepary bean wax bean yellow bean (continued)	3.0 fl oz per 100 lb seed	Thiamethoxam 50 Azoxystrobin 2 Mefenoxam 3.75 Fludioxonil 2.5	0.16 - 0.48 fl oz	3.75 - 11.25 gm

**NOTE:**

- Under cool conditions at planting, azoxystrobin has been documented in some geographies to delay emergence of certain varieties within the Legume Vegetable Group.
- Due to the large number of varieties within the Legume Vegetable Group, some varieties have not been evaluated for seed safety. If the Four-way VAP seed safety of a particular variety is unknown, a seed safety germination study should be conducted prior to applying Four-way VAP.
- When treated according to the directions for post-planting protection against listed pests, Four-way VAP will also provide protection during post treatment storage of the 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 seed to be treated has existing infestations of stored grain insects, it is recommended that the seed be fumigated prior to treating with Four-way VAP and bagging.

**FOUR-WAY VAP RATE TABLE-LEGUME VEGETABLES\* (continued)**

Crop	Rate of Four-way VAP		Additional Apron XL	
	fl oz per 100 lb seed	grams ai per 100 kg seed	fl oz per 100 lb seed	grams ai per 100 kg seed
<b>Bean (All <i>Vigna</i> species) including:</b> adzuki bean asparagus bean blackeyed pea catjang Chinese longbean cowpea Crowder pea moth bean mung bean rice bean southern pea urd bean yardlong bean <b>Broad bean (fava bean)</b> <b>Chickpea (garbanzo bean)</b> <b>Guar</b> <b>Jackbean</b> <b>Lalab bean (hyacinth bean)</b> <b>Lentil</b> <b>Pigeon pea</b> <b>Sword bean</b>	3.0 fl oz per 100 lb seed	Thiamethoxam 50 Azoxystrobin 2 Mefenoxam 3.75 Fludioxonil 2.5	0.16 - 0.48 fl oz	3.75 - 11.25 gm

**NOTE:**

- Under cool conditions at planting, azoxystrobin has been documented in some geographies to delay emergence of certain varieties within the Legume Vegetable Group.
- Due to the large number of varieties within the Legume Vegetable Group, some varieties have not been evaluated for seed safety. If the Four-way VAP seed safety of a particular variety is unknown, a seed safety germination study should be conducted prior to applying Four-way VAP.
- When treated according to the directions for post-planting protection against listed pests, Four-way VAP will also provide protection during post treatment storage of the 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 seed to be treated has existing infestations of stored grain insects, it is recommended that the seed be fumigated prior to treating with Four-way VAP and bagging.

**FOUR-WAY VAP RATE TABLE-SOYBEAN\***

Crop	Rate of Four-way VAP				Additional Apron XL	
	fl oz per 100 lb seed or fl oz per 140,000 seeds	grams ai per 100 kg seed	mg ai per seed	ml per 1,000 seeds	fl oz per 100 lb seed or gm ai per 100 kg	mg ai per seed or fl oz per 1,000 seeds or fl oz per 140,000 seeds
<b>Soybean: including soybean, vegetable</b>	3.0 fl oz per 100 lb seed or 1.40 fl oz per 140,000 seeds	Thiamethoxam 50 Azoxystrobin 2 Mefenoxam 3.75 Fludioxonil 2.5	Thiamethoxam 0.0762 Azoxystrobin 0.003 Mefenoxam 0.0057 Fludioxonil 0.0039 Total = 0.0858	0.2957	0.16-0.48 fl oz per 100 lb seed or 3.75-11.25 gm ai per 100 kg seed	0.0057 -0.0170 mg ai per seed or 0.00053-0.0016 fl oz per 1000 seeds or 0.0746-0.224 fl oz per 140,000 seeds

\*The mg ai per seed, ml Four-way VAP per 1,000 seeds and fl oz Four-way VAP per 140,000 seeds rates are based on 3,000 seeds per pound.

**NOTE:**

- When treated according to the directions for post-planting protection against listed pests, Four-way VAP will also provide protection during post treatment storage of the 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 seed to be treated has existing infestations of stored grain insects, it is recommended that the seed be fumigated prior to treating with Four-way VAP 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 used 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 in proper disposal methods.

### **Container Handling** *[5 gallons or less]*

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### **Container Handling** *[greater than 5 gal non-refillable]*

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and 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 gal refillable]*

**Refillable container.** Refill this container with pesticide only. Do not use 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, by incineration, or by other procedures approved by state and local authorities.

Four-way VAP™, Apron XL®, the ALLIANCE FRAME, the Syngenta Logo, and the PURPOSE ICON are Trademarks of a Syngenta Group Company

Viton® is a registered trademark of E.I. DuPont de Nemours and Company

©20XX Syngenta

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

SCP 1384-MAS 0812 AMEND 1120-CL – jeb – 11/18/2020  
000100-01384.20201127.FOUR-WAY\_VAP.AMEND-NOV2020-CL.PDF