



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

December 9, 2019

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

Subject: Registration Review Label Mitigation for Fludioxonil, Mefenoxam  
Product Name: CruiserMaxx Vibrance Pulses  
EPA Registration Number: 100-1563  
Application Dates: 2/1/2019; 11/4/2019  
Decision Numbers: 557162; 557163

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 and Mefenoxam 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 copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label 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.

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Decision No. 557162; 557163

If you have any questions about this letter, please contact Darius Stanton by phone at 703-347-0433, or via email at [Stanton.Darius@epa.gov](mailto:Stanton.Darius@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to be "Linda Arrington", written in a cursive style.

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

Enclosure

**ACCEPTED**

Dec 09, 2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1563

(Master label)

<b>THIAMETHOXAM</b>	<b>GROUP</b>	<b>4A</b>	<b>INSECTICIDE</b>
<b>THIABENDAZOLE</b>	<b>GROUP</b>	<b>1</b>	<b>FUNGICIDE</b>
<b>MEFENOXAM</b>	<b>GROUP</b>	<b>4</b>	<b>FUNGICIDE</b>
<b>SEDAXANE</b>	<b>GROUP</b>	<b>7</b>	<b>FUNGICIDE</b>
<b>FLUDIOXONIL</b>	<b>GROUP</b>	<b>12</b>	<b>FUNGICIDE</b>

## CruiserMaxx® Vibrance® Pulses

Insecticide with Fungicides

A seed treatment product for protection against damage from listed insects and soil- and seed-borne diseases of dried shelled peas: field pea, chickpea, lentil, and pigeon pea and dried shelled beans.

### Active Ingredients:

Thiamethoxam <sup>1</sup> .....	8.48%
Thiabendazole <sup>2</sup> .....	4.24%
Sedaxane <sup>3</sup> .....	1.41%
Mefenoxam <sup>4</sup> .....	1.06%
Fludioxonil <sup>5</sup> .....	0.71%
<b>Other Ingredients:</b> .....	<b>84.10%</b>
<b>Total:</b> .....	<b>100.00%</b>

<sup>1</sup>CAS No. 153719-23-4

<sup>2</sup>CAS No. 148-79-8

<sup>3</sup>CAS No. 874967-67-6

<sup>4</sup>CAS No. 70630-17-0 and CAS No. 69516-34-3

<sup>5</sup>CAS No. 131341-86-1

CruiserMaxx Vibrance Pulses is a flowable concentrate for seed treatment containing 0.77 lb thiamethoxam, 0.39 lb thiabendazole, 0.13 lb sedaxane, 0.10 lb mefenoxam, and 0.06 lb fludioxonil per gallon.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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

EPA Reg. No. 100-1563

EPA Est. XXXXX

Net Contents

<b>FIRST AID</b>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment
<b>HOT LINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>

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## **PRECAUTIONARY STATEMENTS**

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

#### **CAUTION**

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

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

#### **Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: barrier laminate, butyl rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, nitrile 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 for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls**

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/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 wildlife, freshwater and estuarine/marine fish, and highly toxic to aquatic invertebrates. Do not contaminate water when disposing of equipment washwater or rinsate. Runoff may be hazardous to aquatic organisms in neighboring areas. Exposed treated seed may be hazardous to wildlife. If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion.

## **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**

Mefenoxam 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.

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.

Thiamethoxam 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.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**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 this 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.

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.

Use is permitted on-farm and in commercial seed treatment facilities. This product is to be used in liquid slurry treaters only. Not for use in hopper boxes, planter boxes, or other at-plant applications.

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. Then, conduct germination tests with a portion of this treated 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 CruiserMaxx Vibrance Pulses.

**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), notification to workers, 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 such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, 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.**

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## **USE INFORMATION**

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CruiserMaxx Vibrance Pulses is a seed treatment product containing the active ingredients thiamethoxam (insecticide) and thiabendazole, sedaxane, mefenoxam and fludioxonil (fungicides). CruiserMaxx Vibrance Pulses protects against damage from listed insects and soil- and seed-borne diseases of dried shelled peas: field pea, chickpea, lentil, and pigeon pea and dried shelled beans.

Thiamethoxam protects against listed chewing and sucking insects through contact and ingestion.

Thiabendazole fungicide is active against *Ascochyta*, *Fusarium*, *Phoma* and *Phomopsis* species.

Sedaxane fungicide is active against seed decay, seedling blight and damping-off caused by *Rhizoctonia* species.

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

Fludioxonil fungicide is active against *Fusarium* and *Rhizoctonia* species.



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**RESISTANCE MANAGEMENT**


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<b>THIABENDAZOLE</b>	<b>GROUP</b>	<b>1</b>	<b>FUNGICIDE</b>
<b>MEFENOXAM</b>	<b>GROUP</b>	<b>4</b>	<b>FUNGICIDE</b>
<b>SEDAXANE</b>	<b>GROUP</b>	<b>7</b>	<b>FUNGICIDE</b>
<b>FLUDIOXONIL</b>	<b>GROUP</b>	<b>12</b>	<b>FUNGICIDE</b>

For resistance management, please note that CruiserMaxx Vibrance Pulses contains Group 1/thiabendazole, Group 4/mefenoxam, Group 7/sedaxane and Group 12/fludioxonil. Any fungal population may contain individuals naturally resistant to CruiserMaxx Vibrance Pulses and other Group 1, Group 4, Group 7 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.

Thiabendazole belongs to the methyl-benzimidazole carbamate class of chemistry which disrupts  $\beta$ -tubulin assembly in mitosis. Mefenoxam belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Sedaxane is a succinate dehydrogenase inhibitor (SDHI) and belongs to the carboxamide 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/insecticide resistance, take one or more of the following steps:

- Rotate the use of CruiserMaxx Vibrance Pulses or other Group 1, Group 4, Group 7 or Group 12 within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/insecticide 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/insecticide 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/insecticide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/insect 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.

<b>THIAMETHOXAM</b>	<b>GROUP</b>	<b>4A</b>	<b>INSECTICIDE</b>
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For resistance management, Clariva Vibrance Pulses contains a Group 4A/thiamethoxam insecticide. Any insect population may contain individuals naturally resistant to Clariva Vibrance Pulses 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.

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

- Use products at their full, specified doses.
- Use appropriate, well-maintained equipment. Use specified water volumes and apply at optimal temperatures in order to obtain optimal treatment.
- When rate ranges are given, use the higher rate within the listed rate range when insect pressure is expected to be high.
- Avoid using a single active ingredient or mode of action (same insecticide group) exclusively for season-long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, use a treatment window approach. A treatment window is a period of time defined by the stage of crop development and the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, single or consecutive applications may be made using seed, in-furrow, or foliar treatments unless otherwise excluded by product labels. Do not exceed the maximum amount of this insecticide's mode of action allowed per growing season.
- Following a treatment window of this insecticide's mode of action, rotate to a treatment window of effective products with a different mode of action before making additional applications of this insecticide.

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

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

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local Cooperative Extension Service specialist, pest control advisor, or certified crop advisor
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: <http://www.irac-online.org>

**ROTATIONAL CROP RESTRICTIONS**

In the event of crop failure or after harvest of a crop grown from seed treated with CruiserMaxx Vibrance Pulses, the field may be replanted according to the following schedule:

<b>Immediate Plantback</b>	<b>Minimum 30-Day Plantback Interval</b>
<p>Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat</p> <p>Beans, Dried Shelled: Bean, Lupinus Spp.; Bean, Phaseolus Spp.; Bean, Vigna Spp.; Broad Bean (Fava Bean); Guar; and Lablab Bean (Hyacinth Bean)</p> <p>Peas, Dried Shelled: Chickpea (Garbanzo Bean), Field Pea, Lentil, and Pigeon Pea</p> <p>Soybean</p>	<p>Alfalfa</p> <p>Canola</p> <p>Cereal Grains: Buckwheat, Pearl Millet, Proso Millet, Rice, Sorghum, Teosinte, and Wild Rice</p> <p>Cotton</p> <p>Cucurbit Vegetables Crop Group 9</p> <p>Fruiting Vegetables Crop Group 8</p> <p>Head and Stem Brassica Crop Subgroup 5A</p> <p>Leafy Brassica Greens Crop Subgroup 5B</p> <p>Leafy Vegetables (Except Brassica Vegetables) Crop Group 4</p> <p>Legume Vegetables (Succulent or Dried) Crop Group 6</p> <p>Mint: Peppermint and Spearmint</p> <p>Oilseeds: Borage, Crambe, Flax Seed, Mustard Seed, Rapeseed, and Safflower</p> <p>Onion, Bulb</p> <p>Peanut</p> <p>Potato</p> <p>Root Vegetables Crop Subgroup 1A</p> <p>Strawberry</p> <p>Sunflower</p>

	Tobacco Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D
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For any other crop, the minimum plant-back interval is 120 days from the date the CruiserMaxx Vibrance Pulses 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.

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## MIXING PROCEDURES

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**Important:** Always re-circulate CruiserMaxx Vibrance Pulses thoroughly before using.

Follow the manufacturer's application instructions for the seed treatment equipment being used.

Apply CruiserMaxx Vibrance Pulses 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 insect or disease control. Thoroughly mix the specified amount of CruiserMaxx Vibrance Pulses 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. CruiserMaxx Vibrance Pulses is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta representative for directions before applying CruiserMaxx Vibrance Pulses with inoculants.

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 fl oz/100 lb seed. More diluent may be required to obtain complete coverage. For chickpea, a total slurry volume of 8 fl oz/100 lb of seed is recommended and more diluent may be required to obtain optimal coverage.

Continuous agitation or mixing of the slurry mixture is necessary to prevent settling out of the solution. Clean out any unused product from the treater after treating or maintain constant agitation if the left over slurry will be maintained overnight.

CruiserMaxx Vibrance Pulses contains an EPA-approved colorant that imparts an unnatural color to the seed as required by the Federal Seed Act.

Allow seed to dry before bagging.

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

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## SEED BAG LABEL REQUIREMENTS

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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 thiabendazole, sedaxane, fludioxonil and mefenoxam fungicides.
- Do not use for feed, food, or oil purposes.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with CruiserMaxx Vibrance Pulses:

- **Ground Water 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.
- 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.
- Do not allow children, pets, or livestock to have access to treated seed.
- Store treated seed 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 by burying seed away from bodies of water.
- 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 crop failure or after harvest of a crop grown from seed treated with CruiserMaxx Vibrance Pulses, the field may be replanted according to the following schedule:

<b>Immediate Plantback</b>	<b>Minimum 30-Day Plantback Interval</b>
Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat	Alfalfa Canola

<p>Beans, Dried Shelled: Bean, Lupinus Spp.; Bean, Phaseolus Spp.; Bean, Vigna Spp.; Broad Bean (Fava Bean); Guar; and Lablab Bean (Hyacinth Bean)</p> <p>Peas, Dried Shelled: Chickpea (Garbanzo Bean), Field Pea, Lentil, and Pigeon Pea</p> <p>Soybean</p>	<p>Cereal Grains: Buckwheat, Pearl Millet, Proso Millet, Rice, Sorghum, Teosinte, and Wild Rice</p> <p>Cotton</p> <p>Cucurbit Vegetables Crop Group 9</p> <p>Fruiting Vegetables Crop Group 8</p> <p>Head and Stem Brassica Crop Subgroup 5A</p> <p>Leafy Brassica Greens Crop Subgroup 5B</p> <p>Leafy Vegetables (Except Brassica Vegetables) Crop Group 4</p> <p>Legume Vegetables (Succulent or Dried) Crop Group 6</p> <p>Mint: Peppermint and Spearmint</p> <p>Oilseeds: Borage, Crambe, Flax Seed, Mustard Seed, Rapeseed, and Safflower</p> <p>Onion, Bulb</p> <p>Peanut</p> <p>Potato</p> <p>Root Vegetables Crop Subgroup 1A</p> <p>Strawberry</p> <p>Sunflower</p> <p>Tobacco</p> <p>Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D</p>
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- For any other crop, the minimum plant-back interval is 120 days from the date the CruiserMaxx Vibrance Pulses 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 use at a rate that will result in more than 0.0184 lb fludioxonil/A (8.34 g fludioxonil/A), 0.113 lb mefenoxam/A (51.3 g mefenoxam/A), and 0.11 lb thiamethoxam/A (50 g thiamethoxam/A) per calendar year as a seed treatment application.
- This seed has been treated with 2.5 g fludioxonil/100 kg seed, 3.75 g mefenoxam/100 kg seed, and 30 g thiamethoxam/100 kg seed.
- Do not apply products containing neonicotinoid insecticides to the soil or foliage of crops grown from seed treated with CruiserMaxx Vibrance Pulses.

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## USE DIRECTIONS

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When applied according to the **Cruisermaxx Vibrance Pulses Rate Table**, CruiserMaxx Vibrance Pulses provides early season protection against the insects and diseases listed in the tables below.

### CruiserMaxx Vibrance Pulses Rate Table

Crop	Insects	Diseases	Use Rate (fl oz per 100 lb seed)	Active Ingredient (grams per 100 kg seed)
<b>DRIED SHELLED PEAS AND BEAN (EXCEPT SOYBEAN) CROP SUBGROUP 6C:</b>  <b>DRY BEANS Bean (<i>Lupinus</i> spp.):</b> includes grain lupin, sweet lupin, white lupin and white sweet lupin  <b>Bean (<i>Phaseolus</i> spp.):</b> includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean and tepary bean	Aphids Bean leaf beetle Leafhoppers Leaf miners Mexican bean beetle Pea leaf weevil Plant leaf hopper Seed corn maggot Thrips White grub Wireworms	Seed-borne Ascochyta blight and foot root caused by Ascochyta and Phoma spp.  Seed and soil-borne diseases caused by Fusarium, Phomopsis, Pythium and Rhizoctonia spp.	5.0	Thiamethoxam: 30  Mefenoxam: 3.75  Fludioxonil: 2.5  Sedaxane: 5.0  Thiabendazole: 15

<b>Bean (<i>Vigna</i> spp.):</b> includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea and urd bean				
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**CruiserMaxx Vibrance Pulses Rate Table (continued)**

Crop	Insects	Diseases	Use Rate (fl oz per 100 lb seed)	Active Ingredient (grams per 100 kg seed)
<b>Broad bean (dry) (fava bean) (<i>Vicia faba</i>)</b>  <b>Guar (<i>Cyamopsis tetragonoloba</i>)</b>  <b>Lablab bean (hyacinth bean) (<i>Lablab purpureus</i>)</b>  <b><u>DRY PEAS</u></b> <b>Field Pea (<i>Pisum sativum</i>)</b>  <b>Chickpea (garbanzo bean) (<i>Cicer arietinum</i>)</b>  <b>Lentil (<i>Lens esculenta</i>)</b>  <b>Pigeon Pea (<i>Cajanus cajan</i>)</b>	Aphids Bean leaf beetle Leafhoppers Leaf miners Mexican bean beetle Pea leaf weevil Plant leaf hopper Seed corn maggot Thrips White grub Wireworms	Seed-borne Ascochyta blight and foot root caused by Ascochyta and Phoma spp.  Seed and soil-borne diseases caused by <i>Botrytis</i> , <i>Fusarium</i> , <i>Phomopsis</i> , <i>Pythium</i> and <i>Rhizoctonia</i> spp.	5.0	Thiamethoxam: 30  Mefenoxam: 3.75  Fludioxonil: 2.5  Sedaxane: 5.0  Thiabendazole: 15



**When to add additional Cruiser® 5FS, EPA Reg. No. 100-941:**

If heavy insect pressure is expected, add up to 0.5 fl oz additional Cruiser 5FS as directed on the Cruiser 5FS label. When applied at 5.0 fl oz/100 lb of seed, CruiserMaxx Vibrance Pulses provides the equivalent of 0.78 fl oz/100 lb of seed of Cruiser 5FS.

**When to add additional Apron XL®, EPA Reg. No. 100-799:**

If target fields have a history of high Phytophthora pressure, add 0.16 - 0.48 fl oz Apron XL as directed on 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.

For systemic downy mildew protection in all Peas (*Pisum* spp.), add 1.12 fl oz Apron XL/100 lb of seed.

When applied at 5.0 fl oz/100 lb of seed, CruiserMaxx Vibrance Pulses provides the equivalent of 0.16 fl oz/100 lb of seed of Apron XL.

**When to add additional Mertect® 340-F, EPA Reg. No. 100-889:**

For heavy Ascochyta infections in field pea, pigeon pea and lentil add 0.5 fl oz additional Mertect 340-F for best protection. For heavy Ascochyta infections of chickpeas, add 1.5 fl oz Mertect 340-F as directed on the Mertect 340-F label. For best results against Ascochyta blight, plant chickpeas, peas or lentil seed treated with Mertect 340-F fungicide as late in the spring as possible. When applied at 5.0 fl oz/100 lb of seed, CruiserMaxx Vibrance Pulses provides the equivalent of 0.5 fl oz/100 lb of seed of Mertect 340-F.

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

**STORED GRAIN PROTECTION**

When treated according to the directions for post-planting protection against listed pests, CruiserMaxx Vibrance Pulses will also provide protection during post treatment storage of the seed listed in the **CruiserMaxx Vibrance Pulses Rate Table** against damage from Indian Meal Moth (*Plodia interpunctella*) and Red Flour Beetle (*Tribolium castaneum*).

If the seed to be treated has existing infestations of stored grain insects, fumigate the seed with a registered product approved for such use prior to treating with CruiserMaxx Vibrance Pulses and bagging.

## **STORAGE AND DISPOSAL**

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

### **Pesticide Storage**

Store in the original container and only in a cool, dry, secure place. 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 [less than or equal to 5 gallons]**

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use 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 – mini-bulk]**

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities.

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

**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

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