DRIED SHELLED PEAS AND BEAN (EXCEPT SOYBEAN) CROP SUBGROUP 6C - STORED GRAIN PROTECTION

General Information

USE INFORMATION
CruiserMaxx Vibrance Pulses is a seed treatment product containing the active ingredients thiamethoxam (insecticide) and thiabendazole, sedaxane, mefenoxam and fl udioxonil (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.

RESISTANCE MANAGEMENT

For resistance management, please note that CruiserMaxx Vibrance Pulses contains Group 1/thiabendazole, Group 4/mefenoxam, Group 7/sedaxane and Group 12/fl udioxonil. 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 s-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.

For resistance management, CruiserMaxx Vibrance Pulses contains a Group 4A/thiamethoxam insecticide. Any insect population may contain individuals naturally resistant to CruiserMaxx 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:

Immediate Plantback

Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat, Beans, Dried Shelled:

Bean, Lupinus Spp.; Bean, Phaseolus Spp.; Bean, Vigna Spp.; Broad Bean (Fava Bean); Guar; and Lablab Bean (Hyacinth Bean), Peas, Dried Shelled: Chickpea (Garbanzo Bean), Field Pea, Lentil, and Pigeon Pea, Soybean

Minimum 30-Day
Plantback Interval

Alfalfa, Canola, Cereal Grains: Buckwheat, Pearl Millet, Proso Millet, Rice, Sorghum, Teosinte, and Wild Rice, Cotton, Cucurbit Vegetables Crop Group 9, Fruiting Vegetables Crop Group 8, Head and Stem Brassica Crop Subgroup 5A, Leafy Brassica Greens Crop Subgroup 5B, Leafy Vegetables (Except Brassica Vegetables) Crop Group 4, Legume Vegetables (Succulent or Dried) Crop Group 6, Mint: Peppermint and Spearmint, Oilseeds: Borage, Crambe, Flax Seed, Mustard Seed, Rapeseed, and Safflower, Onion, Bulb, Peanut, Potato, Root Vegetables Crop Subgroup 1A, Strawberry, Sunflower, Tobacco, Tuberous and Corm Vegetables (Except Potato), Crop Subgroup 1D

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.

MIXING PROCEDURES
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.

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 thiabendazole, sedaxane, fl udioxonil 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:

Immediate Plantback
Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat, Beans, Dried Shelled: Bean, Lupinus Spp.; Bean, Phaseolus Spp.; Bean, Vigna Spp.; Broad Bean (Fava Bean); Guar; and Lablab Bean (Hyacinth Bean), Peas, Dried Shelled: Chickpea (Garbanzo Bean), Field Pea, Lentil, and Pigeon Pea, Soybean

Minimum 30-Day
Plantback Interval
Alfalfa, Canola, Cereal Grains: Buckwheat, Pearl Millet, Proso Millet, Rice, Sorghum, Teosinte, and Wild Rice, Cotton, Cucurbit Vegetables Crop Group 9, Fruiting Vegetables Crop Group 8, Head and Stem Brassica Crop Subgroup 5A, Leafy Brassica Greens Crop Subgroup 5B, Leafy Vegetables Except Brassica Vegetables), Crop Group 4, Legume Vegetables Succulent or Dried) Crop Group 6, Mint: Peppermint and Spearmint, Oilseeds: Borage, Crambe, Flax Seed, Mustard Seed, Rapeseed, and Safflower, Onion Bulb, Peanut, Potato, Root Vegetables Crop Subgroup 1A, Strawberry, Sunflower, Tobacco, Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

- 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.

Limitations, Restrictions, and Exceptions

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.

Method
Seed Treatment
Restricted Entry Interval

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.

Timings
N.A.