

# SEED CORN

## General Information

### PRODUCT INFORMATION

Vibrance Cinco is a broad-spectrum seed treatment fungicide that consists of five fungicide active ingredients: azoxystrobin, mefenoxam, fludioxonil, sedaxane, and thiabendazole. Each active ingredient has a different mode of action against fungal pathogens. This fungicide seed treatment is recommended for control of many important fungal plant diseases. Vibrance Cinco may be applied in tank mixes or sequentially with other registered seed treatment pesticide products containing abamectin, thiamethoxam, or cyantraniliprole (e.g., Avicta Duo 250 Corn nematocide/insecticide, Cruiser 5FS insecticide, and Fortenza insecticide).

Azoxystrobin fungicide protects against damage from seed-borne Head Smut, *Sphacelotheca reiliana*; seed-borne and soil-borne fungi causing decay, damping-off, and seedling blight; and seedling damping-off caused by *Rhizoctonia*, *Penicillium*, and *Pythium* species.

Mefenoxam fungicide is active against *Pythium* seed rot and damping-off.

Fludioxonil fungicide protects against damage from seed-borne Head Smut, *Sphacelotheca reiliana*, and seed-borne and soil-borne *Fusarium*, *Penicillium*, and *Rhizoctonia* species causing seed decay, damping-off, and seedling blight.

Sedaxane fungicide is active against seed decay, seedling blight and damping-off caused by *Rhizoctonia solani* and further protects corn against Head Smut, *Sphacelotheca reiliana*.

Thiabendazole fungicide protects against damage from seed-borne Head Smut, *Sphacelotheca reiliana*, and seed-borne and soil-borne *Fusarium* species that cause seed decay, damping-off, and seedling blight.

### Resistance Management

For resistance management, please note that Vibrance Cinco contains Group 1/thiabendazole, Group 4/mefenoxam, Group 7/sedaxane, Group 11/azoxystrobin

and Group 12/fludioxonil fungicides. Any fungal population may contain individuals naturally resistant to Vibrance Cinco and other Group 1, Group 4, Group 7, 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.

Thiabendazole belongs to the methyl-benzimidazole carbamate class of chemistry which disrupts  $\alpha$ -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. 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 Vibrance Cinco or other Group 1, Group 4, Group 7, Group 11 or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.

- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

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

## APPLICATION DIRECTIONS

Important: Recirculate Vibrance Cinco thoroughly before using.

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

Apply Vibrance Cinco as a water-based slurry utilizing standard slurry seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the specified amount of Vibrance Cinco into the required amount of water or liquid inoculant for the slurry treater and dilution rate to be used.

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 leftover slurry will be maintained overnight.

- Use an EPA-approved dye or colorant that imparts an unnatural color to the seed as stated in 40 CFR 153.155(c).
- Allow seed to dry before bagging.

## ROTATIONAL CROP RESTRICTIONS

- In the event of a crop failure or harvest of a crop grown from seed treated with Vibrance Cinco, the field may be replanted according to the schedule given in the label.

## SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers of treated seeds must be labeled with

the following statements:

- This seed has been treated with azoxystrobin, mefenoxam, fludioxonil, sedaxane, and thiabendazole fungicides.
- Do not use for feed, food, or oil purposes.

In addition, the following statements are required on containers of seeds treated with VibranceR Cinco:

- Groundwater Advisory: Azoxystrobin, a degradate of azoxystrobin, and mefenoxam are known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil has 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.
- Do not allow children, pets, or livestock to have access to treated seed.
- Store away from feeds and foodstuffs.
- Wear long-sleeved shirt, long pants, shoes with socks, and chemical resistant gloves when handling treated seed.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment wash waters.
- Dispose of seed packaging in accordance with local requirements.

- 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 graze animals on forage until 30 days after planting.
- Make no more than 2 plantings of seed treated with Vibrance Cinco per year.
- In the event of a crop failure or harvest of a crop grown from seed treated with Vibrance Cinco, the field may be replanted according to the schedule given in the label

#### Limitations, Restrictions, and Exceptions

#### Rates

TOTAL: 0.077 mg ai/seed

- Azoxystrobin: 0.003 mg ai/seed
- Mefenoxam: 0.005 mg ai/seed
- Fludioxonil: 0.006 mg ai/seed
- Sedaxane: 0.013 mg ai/seed
- Thiabendazole: 0.050 mg ai/seed

#### Method

#### [Seed Treatment](#)

#### Rates

#### [field rates 0](#)

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#### 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. No restricted-entry interval (REI) is required following soil injection, soil incorporated or a soil drench application.

Timings

N.A.