

# SEED TREATMENT - LEGUME VEGETABLES

## General Information

### PRODUCT INFORMATION

Vibrance is a seed treatment fungicide which provides protection against listed soil-borne and seed-borne diseases of crop plants. Vibrance is effective against seed and seedling blight or damping-off caused by listed seed- and soil-borne pathogens, including *Rhizoctonia* spp. Vibrance is particularly effective against certain smut diseases in cereal grains. Where rate ranges are shown, use the higher rate when disease pressure is expected to be severe.

### Resistance Management

Sedaxane belongs to the carboxamide class of chemistry and is a succinate dehydrogenase inhibitor (SDHI). SDHI's inhibit fungal metabolism by binding to the succinate dehydrogenase enzyme thereby disrupting cellular respiration and energy generation.

For resistance management, Vibrance contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to Vibrance and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Follow appropriate resistance-management strategies.

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

- Rotate the use of Vibrance or other Group 7 fungicides within a growing season sequence with different groups that control the same pathogens.
- Monitor treated fungal populations for resistance development.
- Use seed treatment based on an IPM program that includes field sanitation, scouting, historical information related to pesticide use, and crop rotation. The IPM program should also consider cultural, biological, and other chemical control practices.

### FOR ADDITIONAL INFORMATION ON FUNGICIDE RESISTANCE MANAGEMENT:

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local extension specialist or certified crop advisor

- Visit the Fungicide Resistance Action Committee (FRAC) on the web at:

<http://www.frac.info>

## APPLICATION DIRECTIONS

Apply Vibrance 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 Vibrance into the required amount of water for the slurry treater and dilution rate to be used. Follow the manufacturer's application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. 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.

Vibrance does not control diseases caused by *Pythium* spp. or *Phytophthora* spp. If these diseases are expected to be a problem, apply Vibrance with other seed treatment products that contain mefenoxam as an active ingredient. If a mefenoxam-containing seed treatment product is not registered on that crop, apply Vibrance as a tank mix with another labeled seed treatment product that has activity against these diseases.

### Tank Mixtures

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.

Cereals, small-grain (Barley, Oats, Rye, Triticale, and Wheat): Tank mix when a problem is expected with the diseases that are not controlled by Vibrance. Vibrance may be mixed with seed treatment products containing difenoconazole, mefenoxam, fludioxonil, and/or thiabendazole for broad spectrum disease control of cereals. For protection from various insects, Vibrance may be mixed with seed treatment products containing thiamethoxam along with specified rates of any of the fungicides mentioned above in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipment only. For combined protection from labelled insect pests and soil and

seed-borne pathogens, Vibrance may be mixed with a premix seed treatment product containing thiamethoxam, mefenoxam, and difenoconazole. 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.

Corn: For additional protection than Vibrance alone provides, a premix seed treatment product containing fludioxonil, mefenoxam, azoxystrobin and thiabendazole may be slurry-mixed for broad-spectrum protection of seed-borne and soil-borne fungi causing decay, damping-off, and seedling blight including *Pythium* spp., *Fusarium* spp., *Penicillium* spp. and *Rhizoctonia* spp.

If using Vibrance in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix partner label(s). Do not exceed any label dosage and the most restrictive label precautions and limitations must be followed. This product must not be mixed with any product which prohibits such mixing.

Cotton: For additional control of certain seed- and seed-borne pathogens, Vibrance may be combined with seed treatment products containing mefenoxam, fludioxonil, and/or azoxystrobin. For insect control, Vibrance may be tank mixed with a seed treatment product containing abamectin and/or thiamethoxam. 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.

## Legume Vegetables (Succulent or Dried) Crop Group 6

Vibrance may be tank mixed with seed treatment products containing mefenoxam, fludioxonil, azoxystrobin, and/or thiabendazole for additional control of certain seed- and soil-borne pathogens. For insect control, Vibrance can be tank mixed with seed treatment products containing thiamethoxam. 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.

Potato: For additional control of certain seed- and soil-borne pathogens, Vibrance may be combined with seed treatment products containing fludioxonil. For insect control, Vibrance may be tank mixed with seed treatment products containing thiamethoxam, fludioxonil, and/or difenoconazole. 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.

Rapeseed (including canola) Crop Subgroup 20A: For additional control of certain seed- and soil-borne pathogens as well as insect control, Vibrance may be combined with a seed treatment product containing thiamethoxam, difenoconazole, mefenoxam, and fludioxonil. 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.

Rice: For additional control of certain seed- and seed-borne pathogens, Vibrance may be combined with seed treatment products containing mefenoxam, fludioxonil, and/or azoxystrobin. For insect control, Vibrance may be tank mixed with a seed treatment product containing thiamethoxam and fludioxonil, azoxystrobin, and/or mefenoxam. 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.

Sorghum: For additional control of certain seed- and seed-borne pathogens, Vibrance may be combined with seed treatment products containing mefenoxam, fludioxonil, and/or azoxystrobin. For suppression of downy mildew, *Peronosclerospora sorghi*, use in combination with a seed treatment product containing acibenzolar-s-methyl and azoxystrobin. For insect control, Vibrance may be tank mixed with seed treatment products containing thiamethoxam. 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.

Soybean: Additional protection from common seed-borne and soil-borne pathogens may be achieved by adding seed treatment products containing mefenoxam, azoxystrobin, fludioxonil and/or thiabendazole. Mefenoxam provides protection against *Pythium* and early season *Phytophthora* root rot. Fludioxonil provides protection against *Fusarium* spp., *Rhizoctonia* spp., and also suppresses seed-borne *Sclerotinia* spp. and *Phomopsis* spp. Azoxystrobin adds an additional mode of action for protection against *Pythium* spp. and *Rhizoctonia* spp. Thiabendazole provides protection against Pod and stem blight (*Phomopsis* spp.) as well as another mode of action against *Fusarium* spp. 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.

Sugarbeet: Vibrance may be tank mixed with seed treatment products containing

mefenoxam, fludioxonil, and/or azoxystrobin for additional control of certain seed- and soil-borne pathogens. For insect control, Vibrance may be tank mixed with a seed treatment product containing thiamethoxam. 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.

See table in the label for ROTATIONAL CROPS RESTRICTIONS.

## USE PRECAUTIONS

Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

## SEED CONTAINER 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 sedaxane fungicide.
- 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 seed treated with Vibrance fungicide:

- Store away from food and feedstuffs.
- Do not allow children, pets, or livestock to have access to treated seeds.
- 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.
- Dispose of all excess treated seed. Left over treated seed may be double sown around the headland or buried away from water sources in accordance with local requirements. Do not contaminate water bodies when disposing of planting equipment washwater.
- 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

ethanol by-products that are used for agronomic practice.

- The maximum number of applications per year is 2.
- Do not apply more than 0.016 lb ai/Acre (7.1 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Cereal Grains (except corn, rice and sorghum) Crop Group 15 and Forage, Fodder and Straw of Cereal Grains (except corn, rice and sorghum) Crop Group 16.
- Do not apply more than 0.027 lb ai/Acre (12 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Corn (field, pop, seed, and sweet).
- Do not apply more than 0.031 lb ai/Acre (14 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Rice, Dry-seed only.
- Do not apply more than 0.0012 lb ai/Acre (0.54 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Sorghum.
- Do not apply more than 0.0076 lb ai/Acre (3.4 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Cotton.
- Do not apply more than 0.041 lb ai/Acre (19 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Legume Vegetables (Succulent or Dried) Crop Group 6 and Foliage of Legume Vegetables Crop Group 7A and soybeans.
- Do not apply more than 0.046 lb ai/Acre (21g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Peanut.
- For potatoes the application of Vibrance is limited to 0.1 lb ai /A for 12 months. This restriction applies to potatoes only. A Vibrance application rate of 0.1 lb ai/A is equal to 4000 lb of potato planted per acre and treated with 0.08 fl oz of Vibrance product per 100 lb of potato seed.
- Do not apply more than 0.0050 lb ai/Acre (2.3 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Rapeseed (including Canola) Crop Subgroup 20A.
- Do not apply more than 0.0167 lb ai/Acre (7.6 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Soybean and Soybean (immature seed).
- Do not apply more than 0.00071 lb ai/Acre (0.32 g ai/Acre) per calendar year of sedaxane-containing products as a seed treatment on Sugarbeet (Not allowed on sugarbeets grown for seed production).
- In the event of crop failure or harvest of a crop grown from seed treated with Vibrance, crops may be replanted according to the following schedule in the label.

## Limitations, Restrictions, and Exceptions

### ROTATIONAL CROPS RESTRICTIONS

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

Crop Planted: Canola, Cereal Grains Crop Group 15, Corn (field, pop, sweet), Cotton, Legume Vegetables, (Succulent or Dried) Crop Group 6, Peanut, Rapeseed (Crop Subgroup 20A), Sorghum, Soybean, Sugar Beet

Immediate Plant Back: Canola, Cereal Grains Crop Group 15, Corn (field, pop, sweet), Cotton, Legume Vegetables (Succulent or Dried) Crop Group 6, Peanut, Potato, Rapeseed (Crop Subgroup 20A including canola), Sorghum, Soybean, Sugar Beet

Minimum 30-Day Plant Back: All other crops

Crop Planted: Potato

Immediate Plant Back: Canola, Cereal Grains Crop Group 15, Corn (field, pop, sweet), Cotton, Dried Shelled Pea and Bean (Crop Subgroup 6C), Peanut, Rapeseed (Crop Subgroup 20A including canola), Sorghum, Soybean, Sugar Beet

Minimum 60-Day Plant Back: All other crops except potatoes

12-Month Plant Back: Potato

Resistance Management:

- Refer to Resistance Management.

### USE RESTRICTIONS

- Do not apply more than 0.041 lb ai/Acre (19 g ai/Acre) per calendar year of sedaxane containing products as a seed treatment on Legume Vegetables (Succulent or Dried) Crop Group 6 and Foliage of Legume Vegetables Crop Group 7A and soybeans.

- The maximum number of applications per year is 2.

Method

[Seed Treatment](#)

Restricted Entry Interval



12 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.](#)