UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 30, 2021

Adora Clark
Federal Team Lead Fungicides
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, NC 27419

Subject: PRIA Label Amendment – New uses being granted on the following: Animal feed, nongrass, group 18; Brassica, leafy greens, subgroup 4-16B; and Sweet Potato; and Crop Group Conversions/Expansions to Fruit, citrus, group 10-10; Fruit, pome, group 11-10; Kohlrabi; Vegetable, Brassica, head and stem, group 5-16; Vegetable, root, except sugar beet, subgroup 1B; and Vegetable, tuberous and corm, subgroup 1C, except sweet potato.
Product Name: MERTECT 340-F
EPA Registration Number: 100-889
Application Date: 11/20/2019
Decision Number: 557826, 557825, 557824

Dear Adora Clark:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) 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 18 months from the date of this letter. After 18 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.

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.

Your release for shipment of the product 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. If you have any questions, please contact James Orrock via email at orrock.james@epa.gov.

Sincerely,

Cynthia Giles-Parker, Chief
Fungicide Branch
Registration Division (7505P)

Enclosure stamped "accepted" label

| THIABENDAZOLE | GROUP | 1 | FUNGICIDE |
|---|---|---|---|

**Mertect® 340-F**

**Fungicide**

| Active Ingredient: | |
|---|---|
| Thiabendazole*:.. ..... | 42.3% |
| Other Ingredients: | 57.7% |
| Total: | 100.0% |

*CAS No.148-79-8

Mertect 340-F is a suspension concentrate containing 4.1 pounds of Thiabendazole per gallon.

**KEEP OUT OF REACH OF CHILDREN.**

# CAUTION

[See additional precautionary statements and directions for use inside booklet.]

EPA Reg. No. 100-889

EPA Est.

____ gallons
Net Contents

ACCEPTED
08/30/2021
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-889

| FIRST AID | |
|---|---|
| **If Inhaled:** | • Move person to fresh air.<br>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.<br>• Call a poison control center or doctor for further treatment advice. |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. | |
| **HOT LINE NUMBER**<br>For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),<br>Call<br>**1-800-888-8372** | |

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION**

Harmful if inhaled. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

**Mixers, loaders, applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks

In addition to the above, handlers making application to mushroom houses using hand held sprayers must wear chemical-resistant gloves.

### User Safety Requirements

Follow the 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.

**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 fish. Do not apply when weather conditions favor runoff or drift from the target area. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Treated seed exposed on soil surface may be hazardous to wildlife. Cover or collect seeds spilled during loading.

## 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.

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.

## 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 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.**

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: barrier laminate, butyl rubber ≥14 mils, neoprene rubber ≥14 mils, nitrile rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.**

## PRODUCT INFORMATION

Mertect 340-F is a systemic fungicide which aids in the control of many important plant diseases. If treatment is not effective following use of Mertect 340-F as recommended, a tolerant strain of fungus may be present. Consideration should be given to prompt use of other suitable non-benzimidazole fungicides. Mertect 340-F is not for use in formulating agricultural products.

## RESISTANCE MANAGEMENT

| THIABENDAZOLE | GROUP | 1 | FUNGICIDE |
|---|---|---|---|

For resistance management, Mertect 340-F contains Thiabendazole, a Group 1 fungicide. Any fungal population may contain individuals naturally resistant to Mertect 340-F and other Group 1 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 ß-tubuline assembly in mitosis.

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

- Rotate the use of Mertect 340-F or other Group 1 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 Crop Protection at 1-866-796-4368. You can also contact your university extension specialist to report resistance.

## CROP USE DIRECTIONS

GENERAL - SHAKE OR STIR WELL BEFORE USE.

Clean equipment before using Mertect 340-F. **When Mertect 340-F is dispersed in water, the resulting suspension must be constantly agitated.** Avoid foaming.

Use the higher specified rates under conditions of heavier disease pressure.

Compatibility information for Mertect 340-F with other chemicals is limited. Consult your supplier or agricultural experiment station for specific recommendations.

**Carrots - *Botrytis cinerea* Gray Mold and *Sclerotinia sclerotiorum* (Sclerotinia Rot):** Dip carrots, before storage, for 5-10 seconds in a suspension containing 41 fl oz of Mertect 340-F per 100 gal of water. Replenish the suspension when the volume is too low or when it becomes dirty.

The runoff and wastes from the dipping operation should not be discarded in a drainage which could contaminate public water systems.

**Citrus Crop Group 10-10 (One Application Only) - Blue mold (*Penicillium digitatum*), Green mold (*Penicillium italicum*), and stem end rot (*Diplodia natalensis*)**: Dip, flood, or spray harvested fruit with a suspension of Mertect 340-F in water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion. Rate will vary according to application method; please refer to the following for specific rates for citrus blue mold control.

### Citrus Bin Dips, Floods and Drenches

Use 26 fl oz of Mertect 340-F in 100 gal of water to provide 1,000 ppm Thiabendazole. Citrus must be drenched for three (3) minutes. Use one (1) gal of liquid per 1,500-2,000 lb citrus or 100 gal of liquid for about 30 bins. Avoid excessive foaming, use antifoam if needed.

### Citrus Sprays

Use 52-91 fl oz Mertect 340-F in 100 gal of water, wax/oil emulsions, or an aqueous dilution of wax/oil emulsion to provide 2,000-3,500 ppm of Thiabendazole. Keep the mixture under constant agitation. Apply at a rate of one gal per 8,000 - 10,000 lb citrus fruit.

For sporulation control, apply 130 fl oz of Mertect 340-F in 100 gal of water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion to provide 5,000 ppm. Apply at a rate of one gal per 8,000 - 10,000 lb citrus fruit.

**Mushrooms (*Agaricus* spp.) - Dry Bubble (*Verticillium fungicola*), Wet Bubble (*Mycogone perniciosa*), Cobweb (*Dactylium dendroides*) and Green Mold (*Trichoderma* spp.):**

FOR USE AS AN ADMIX WITH MUSHROOM SPAWN GRAINS, MUSHROOM GROWING SUPPLEMENT, AND/OR AS A DRENCH DURING NORMAL WATERING OPERATIONS FOR MUSHROOM GROWING BEDS AT CASING OR BETWEEN BREAKS

**NOTE:** Do not exceed a combined total of 20 fl oz per 1,000 sq ft of product, between the various applications to spawn grains, supplement, and mushrooms. This amount may be used in various treatment regimes. Please refer to the tables below for the rates for the various usage so that the 20 fl oz per 1,000 sq ft is not exceeded.

**Spawn Grains:** Apply a maximum of 5.4 fl oz of Mertect 340-F per 1,000 sq ft. Follow the table below to determine the fl oz of Mertect 340-F that can be mixed with the spawn to deliver 5.4 fl oz per 1,000 sq ft.

**Dosage Table for Use on Spawn Grains**

Do not apply Mertect 340-F to gypsum, limestone, or chalk. Admix Mertect 340-F directly onto spawn grain.

| Pounds spawn per 8000 sq ft | Max. fl oz Mertect per 100 pounds spawn |
|---|---|
| 960 | 4.5 |
| 1040 | 4.1 |
| 1120 | 3.8 |
| 1200 | 3.6 |
| 1280 | 3.4 |
| 1360 | 3.2 |
| 1440 | 3.0 |

**Mushroom Supplements:** A finished batch of mushroom supplement can contain up to 0.1% Thiabendazole (by weight). The Thiabendazole added to the supplement must be included as part of the total of the 20 fl oz of Mertect 340-F allowed per 1,000 sq ft per crop. The total amount of Mertect 340-F that can be applied from all treatments per crop is dependent on the amount of supplement applied (use the table below to determine the remaining volume of Mertect 340-F that can be applied per crop).

| Pounds supplement* per 8,000 sq ft | Fl oz Mertect 340-F remaining that may be applied to mushrooms, supplement, casing, or other timing | Fl oz Mertect 340-F remaining that may be applied to mushrooms, supplement, casing, or other timing if a spawn treatment was also applied |
|---|---|---|
| 800 | 17 | 11.6 |
| 1200 | 15 | 9.6 |
| 1400 | 14.5 | 9.1 |

| | | |
|---|---|---|
| 1800 | 13 | 7.6 |
| 2200 | 11 | 5.6 |
| 2400 | 9 | 3.6 |

*Assumes at maximum rate of 0.1% Thiabendazole.

The amount added for supplement treatment must be deducted from the total remaining amount that can be applied to mushrooms so as not to exceed 20 fl oz per 1,000 sq ft per crop.

**Note:** If you are unsure if the mushroom supplement that you are using contains Thiabendazole, contact the manufacturer of the mushroom supplement.

**Applying to Mushrooms: Refer to the tables above for the amount of Mertect 340-F used in any spawn grain or supplement treatments before applying Mertect 340-F to the mushrooms to ensure that 20 fl oz per 1,000 sq ft is not exceeded.**

Casing Applications: Apply no more than 8 fl oz Mertect 340-F per 1000 sq ft. Mertect 340-F may be applied at casing as a drench during normal watering operations.

Other Timings: Apply no more than 4 fl oz Mertect 340-F per 1000 sq ft.

Do not apply within 12 hours prior to harvest.

**Ornamental Bulbs and Corms (One Application Only) - Fusarium Basal Rot and Penicillium Blue Mold:** Clean and treat bulbs or corm within 24-48 hours of digging. Prepare suspension of 30 fl oz of Mertect 340-F per 100 gal water. Submerge stock completely in dipping suspension. Suspension temperature should be 55-75°F (13-24°C). Discard suspension (1) when it becomes dirty, (2) after using five times, or (3) after 24 hours, whichever occurs first.

**Fusarium (Bulbs and Corms):** Dip bulbs 15-30 minutes, corms 15 minutes.

**Blue Mold (Bulbs):** Dip 10-15 minutes.

After treatment, dry bulbs or corms in a shaded, well-ventilated area. Curing or retarding may precede or follow treatment.

**Potato - Fusarium Tuber Rot:** Mist unwashed tubers on a conveyor line, with tumbling action, entering storage with 0.42 fl oz of Mertect 340-F to each 2,000 lb of tubers in sufficient water for complete coverage. If an additional treatment is necessary before shipping, mist the tubers at the same rate or dip the tubers for 20 seconds in a solution containing 0.42 fl oz of Mertect 340-F per gal of water. Do not treat seed potatoes after cutting.

Mertect 340-F for potatoes should be used as part of an Integrated Management Program, which includes prevention of bruising during harvest and maintaining proper

storage temperature and relative humidity. Neither cultural practices nor chemical measures will prevent *Fusarium* infection if potatoes are damaged or improperly stored.

**Pome Fruit Crop Group 11-10 (Apples and Pears) - Blue Mold Rot, Bull's Eye Rot, and Gray Mold (Nest Rot, Cluster Rot), Stem End and Neck Rot:** Dip, flood, or spray harvested fruit with a suspension of 16 fl oz of Mertect 340-F in 100 gal of water. Do not treat for over 3 minutes. Treat apples only before and after storage for maximum decay control. Treat pears only once.

**Sweet Potato Post Harvest Treatment – Black Rot:** Mist washed roots, on a conveyor line with tumbling action, with 0.42 fl oz of Mertect 340-F in minimum of 0.5 gallons water per 2,000 lb of roots before packing. Ensure roots are dry before packing.

Mertect 340-F should be used as part of an Integrated Management Program that includes prevention of wounding during harvest, and maintaining proper sanitation, temperature, and humidity in storage.

**Sweet Potato (One Application Only) "Seed Roots" - Black Rot, Scurf, and Foot Rot:** Dip the seed roots in a suspension containing 8 fl oz of Mertect 340-F per 7.5 gal of water (107 fl oz per 100 gal). Treat the seed roots for 1-2 minutes and plant immediately. Discard the suspension when the volume is too low or when it becomes dirty. Do not use the treated roots for food or feed.

## SEED TREATMENT

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

Seed treatment with Mertect 340-F provides protection from seed and soil-borne pests listed under target diseases, thereby reducing the likelihood of encountering early-season plant infection, or late-season disease symptoms resulting from early-season infection.

For protection against other seed and soil-borne diseases not controlled by Mertect 340-F, it is highly recommended that a compatible seed treatment fungicide be used at EPA registered label rates and tank mixed in combination with Mertect 340-F. These fungicides must show safety on treated seed, alone or in combination with Mertect 340-F. Consult the label for appropriate use rates and follow all use instructions.

## MIXING PROCEDURES

Apply Mertect 340-F 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 recommended amount of Mertect 340-F into the required amount of water for the slurry treater and dilution rate to be used. Follow the manufacturer 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 required in 40 CFR 153.155 (c).
- Allow seed to dry before bagging.

### Tank Mixtures

Confirm physical compatibility, seed safety, seed safety in stored seed, and biological efficacy before tank mixing with other seed treatment products. Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibiting such mixing.

## SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers oftreated seed must be labeled with the following information:

- This seed has been treated with Thiabendazole fungicide.
- Do not use for feed, food, or oil purposes.

In addition, the following statements are required on containers of seeds treated with Mertect 340-F:

- Store treated seed away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- This seed has been treated with X lb thiabendazole per 100 lb of seed.
- Regardless of type of application, do not apply more than 0.15 lb Thiabendazole per acre (68.0 grams ai/A) per year
- Dispose of seed packaging or containers in accordance with local requirements.

- In the event of crop failure or after harvest of crops grown from seed treated with Mertect 340-F, the following crops may be replanted immediately:

| Immediate Plantback |
| --- |
| Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat |
| Cucurbit Vegetables<br>Crop Group 9 |
| Brassica Head and Stem Vegetable<br>Crop Group 5-16 |
| Brassica Leafy Greens<br>Crop Subgroup 4-16B |
| Kohlrabi |
| Legume Vegetables (Succulent or Dried)<br>Crop Group 6 |
| Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)<br>Crop Group 18 |
| Onion, Bulb,<br>Crop Subgroup 3-07A |
| Root Vegetables (Except Sugarbeet)<br>Crop Subgroup 1B |
| Spinach |
| Sweet Potato |

- For any other crop, the minimum plant back interval is 30 days from the date seed treated with Mertect 340-F was planted.
- Use crop-specific seeding rates according to local agricultural practice.

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

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/ 100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| Alfalfa | Seedling diseases caused by *Fusarium* spp. | 0.004 | 5.8 | 0.19 | Calculations for use rate per 100 lb seed assume an average seed weight of 210,000 alfalfa seeds per lb seed. |
| **Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay) Crop Group 18, Except Alfalfa [Not for Use in California]**<br>Bean, velvet<br>Clover<br>Kudzu<br>Lespedeza<br>Lupin<br>Sainfoin<br>Trefoil<br>Vetch<br>Vetch, crown<br>Vetch, milk | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Northern anthracnose (*Kabatiella caulivora*) | 0.004 | 8.7 | 0.28 | Calculations for use rate per 100 lb seed assume an average seed weight of 315,000 clover seeds per lb seed. |
| **Cereals, small grain**<br>Barley | Seedling diseases caused by *Fusarium* spp. | 0.03 | 2.6 | 0.08 | Calculations for use rate per 100 lb seed assume an average seed weight of 12,500 seeds per lb seed. |
| Oats | Seedling diseases caused by *Fusarium* spp. | 0.03 | 3.4 | 0.11 | Calculations for use rate per 100 lb seed assume an average seed weight of 16,400 seeds per lb seed. |
| Rye | Seedling diseases caused by *Fusarium* spp. | 0.03 | 3.2 | 0.10 | Calculations for use rate per 100 lb seed assume an average seed weight of 15,600 seeds per lb seed. |
| Triticale | Seedling diseases caused by *Fusarium* spp. | 0.03 | 2.6 | 0.08 | Calculations for use rate per 100 lb seed assume an average seed weight of 12,750 seeds per lb seed. |
| Wheat, Winter and Spring | Seed-Borne Fusarium Scab only | 0.0016 | 0.17 | 0.005 | Calculations for use rate per 100 lb seed assume an average seed weight of 15,000 seeds per lb seed*<br><br>For best control of seed-borne Fusarium scab Mertect 340-F should be combined with Maxim 4FS, a pre-mix product containing fludioxonil, or another product with seed-borne Fusarium activity. |
| | Seed-Borne Common Bunt (Stinking Smut) | 0.013 | 1.3 | 0.04 | |
| | Soil-Borne Common Bunt (Stinking Smut) | 0.025 | 2.6 | 0.08 | |
| | Seedling diseases caused by *Fusarium* spp. (soil-borne) | 0.0195 - 0.039 | 1.95 - 3.9 | 0.06-0.12 | |

| | | | | | |
|---|---|---|---|---|---|
| Winter Wheat Only | Dwarf Bunt | 0.025 - 0.039 | 2.6 – 3.9 | 0.08-0.12 | For normal or late winter wheat plantings. Use the lower rate on late winter wheat plantings only. For best control of Dwarf Bunt Mertect 340-F should be combined with a pre-mix product containing difenoconazole. |
| *For protection against other seed and soil-borne diseases, it is highly recommended that a compatible seed treatment fungicide such as one containing difenoconazole plus mefenoxam (e.g., Dividend Extreme®) or one containing sedaxane, difenoconazole, and mefenoxam (e.g, Vibrance® Extreme or CruiserMaxx® Vibrance® Cereals) be used at EPA registered label rates and tank mixed in combination with Mertect 340-F. These fungicides must show safety on treated seed, alone or in combination with Mertect 340-F. Consult the label for appropriate use rates and follow all use instructions. | | | | | |

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| **Brassica Head and Stem Vegetable Group 5-16 and Kohlrabi**<br>Broccoli<br>Brussels sprouts<br>Cabbage<br>Cabbage, Chinese (napa)<br>Cauliflower<br>Cultivars, varieties, and hybrids of these commodities | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Black leg disease (*Phoma lingam*, sexual stage *Leptosphaeria maculans*) | 0.002 | 3.5 | 0.11 | Calculations for use rate per 100 lb seed assume an average seed weight of 215,000 Brassica seeds per lb seed. |
| **Brassica Leafy Greens Crop Subgroup 4-16B**<br>Arugula; Broccoli raab; Broccoli, Chinese; Cabbage, Abyssinian; Cabbage, seakale; Chinese cabbage, bok choy; Collards; Cress, garden; Cress, upland; Hanover salad; Kale; Maca; Mizuna; Mustard greens; Radish, leaves; Rape greens; Rocket, wild; Shepherd's purse; Turnip greens; Watercress; Cultivars, varieties, and hybrids of these commodities | Seed-borne Black leg disease (*Phoma lingam*, sexual stage *Leptosphaeria maculans*) | 0.002 | 3.5 | 0.11 | Calculations for use rate per 100 lb seed assume an average seed weight of 215,000 Brassica seeds per lb seed. |
| **Bulb Vegetables**<br>Daylily<br>Fritillaria<br>Garlic, great-headed<br>Garlic, serpent<br>Lily<br>Onion, Chinese<br>Onion, dry bulb<br>Onion, pearl<br>Onion, potato<br>Shallot<br><br>(Including cultivars, varieties and/or hybrids of these) | Seedling diseases caused by *Fusarium* spp. | 0.002 | 1.4 | 0.04 | Calculations for use rate per 100 lb seed assume an average seed weight of 100,000 onion seeds per lb seed. |
| **Cucurbit Vegetables**<br>Chayote (fruit)<br>Chinese waxgourd | Seedling diseases caused by *Fusarium* spp. | 0.1 | 10.3 | 0.33 | Calculations for use rate per 100 lb seed assume an average |

| | | | | | |
|---|---|---|---|---|---|
| Citron melon<br>Cucumber<br>Gherkin<br>Gourd<br>*Momoridica* spp.<br>Muskmelon<br>Pumpkin<br>Summer squash<br>Winter squash<br>Watermelon | | | | | seed weight of 15,000 cucumber seeds per lb seed. |
| **Spinach**<br>Baby<br>Mature | Seedling diseases caused by *Fusarium* spp.<br>Verticillium wilt caused by seed borne *Verticillium dahlia* | 0.006 | 1.73 | 0.06 | Calculations for use rate per 100 lb seed assume an average seed weight of 42,000 spinach seeds per lb seed. |
| **Vegetables, root subgroup (except sugarbeets)**<br>Beet, garden<br>Burdock, edible<br>Carrots<br>Celeriac<br>Chervil, turnip-rooted<br>Chicory<br>Ginseng<br>Horseradish<br>Parsley, turnip-rooted<br>Parsnip<br>Radish<br>Radish, oriental<br>Rutabaga<br>Salsify, Spanish<br>Skirret<br>Turnip | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Black leg disease (*Phoma lingam*, sexual stage *Leptosphaeria maculans*) | 0.002 | 4.06 | 0.13 | Calculations for use rate per 100 lb seed assume an average seed weight of 300,000 carrot seeds per lb seed. |

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| **Legume Vegetables (Succulent or Dried) Crop Group 6[1]**<br><br>**<u>BEANS</u>**<br><br>Bean (*Lupinus* spp.): includes grain lupin, sweet lupin, white lupin and white sweet lupin<br><br>Bean (*Phaseolus* spp.): includes field bean, kidney bean, lima bean, navy bean, | Seed-borne *Ascochyta* and *Phoma* spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem)[2]<br><br>Seed decay, seedling wilt, and damping-off | 0.035 – 0.200 | 0.30 – 1.72[3] | 0.01-0.06 | Calculations for use rate per 100 lb seed assume an average seed weight of 1,250 bean seeds per lb seed. |

| | | | | | |
|---|---|---|---|---|---|
| pinto bean, runner bean, snap bean, tepary bean and wax bean<br><br>Bean (*Vigna* spp.): includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean and yardlong bean<br><br>Broad bean (fava bean) (*Vicia faba*)<br><br>Guar (*Cyamopsis tetragonoloba*)<br><br>Jackbean (*Canavalia ensiformis*)<br><br>Lablab bean (hyacinth bean) (*Lablab purpureus*)<br><br>Sword bean (*Canavalia gladiata*) | caused by *Phomopsis* spp.<br><br>Seedling diseases caused by *Fusarium* spp. | | | | |
| **CHICKPEA**<br>Chickpea (Garbanzo Bean) (*Cicer arietinum*) | Seed-borne *Ascochyta* and *Phoma* spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem)[2]<br><br>Seedling diseases caused by *Fusarium* spp. | 0.237 | 2.04[3] | 0.07 | Calculations for use rate per 100 lb seed assume an average seed weight of 1,250 chickpea seeds per lb seed. |
| **LENTIL**<br><br>Lentil (*Lens esculenta*) | Seed-borne *Ascochyta* and *Phoma* spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem)[2]<br><br>Seedling diseases caused by *Fusarium* spp. | 0.014 | 1.05[3] | 0.03 | Calculations for use rate per 100 lb seed assume an average seed weight of 10,600 lentil seeds per lb seed. |
| **PEAS**<br><br>Pea (*Pisum* spp.): includes dwarf pea, edible-pod pea, | Seed-borne *Ascochyta* and *Phoma* spp. which cause Ascochyta Blight (foot rot, basal | 0.077 | 1.02[3] | 0.03 | Calculations for use rate per 100 lb seed assume an average seed weight of 1,930 pea seeds per lb seed. |

| | | | | | |
|---|---|---|---|---|---|
| English pea, field pea, garden pea, green pea, snow pea and sugar snap pea<br><br>Pigeon Pea (*Cajanus cajan*) | stem rot or black stem)[2]<br><br>Seedling diseases caused by *Fusarium* spp. | | | | |

1. Untreated foliage of legume vegetables from seeds treated with this product are covered by an EPA tolerance.
2. Will not control disease in aerial portions of the plant after emergence due to infection from such as soil or wind. For best results against Ascochyta blight, plant legume vegetable seeds treated with Mertect 340-F fungicide as late in the spring as possible.
3. If the size of the seed to be treated differs greatly from these numbers use the mg ai/seed rate to calculate the fl oz./100 lb of seed to be applied.

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/ 100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| **Soybean** | Pod and stem blight *(Phomopsis* spp.*)* | 0.004-0.008 | 0.08 - 0.16 | 0.003-0.005 | Calculations for use rate per 100 lb seed assume an average seed weight of 3,000 soybean seeds per lb seed.<br><br>For protection against other seed and soil-borne diseases, it is recommended that a co-fungicide such as a product containing mefenoxam (e.g., Apron® XL) or fludioxonil (e.g., Maxim 4FS) be used at EPA registered label rates and tank mixed in combination with Mertect 340-F. |
| | *Fusarium* spp. (ex. *Fusarium virguliforme*, *Fusarium graminearum*, *Fusarium oxysporum*, *Fusarium solani*) | 0.015– 0.030 | 0.32 - 0.64 | 0.01-0.02 | |

## Restrictions and Limitations

- This product must not be tank mixed with any pesticide unless physical compatibility and phytotoxicity tests have been completed and proved to be satisfactory.
- Regardless of type of application, do not apply more than 0.15 lb Thiabendazole per acre (68.0 grams ai/A) per year.

## STORAGE AND DISPOSAL

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

**Pesticide Storage**
Store Mertect 340-F in a cool, dry place away from food, drink, and animal feeding stuffs. Do not store below 32°F (0°C). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

**Pesticide Disposal**
Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

**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 ¼ 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 ¼ 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.

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 clean-up procedures and disposal of wastes.

**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.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

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**SUPPLEMENTAL LABELING**

**Syngenta Crop Protection, LLC**
P. O. Box 18300
Greensboro, North Carolina 27419-8300
**SCP 889A**

| THIABENDAZOLE | GROUP | 1 | FUNGICIDE |
|---|---|---|---|

**Mertect® 340-F**

**Fungicide**

This supplemental label expires on 08-31-2024 and must not be used or distributed after this date.

| Active Ingredient: | |
|---|---|
| Thiabendazole*:.. ..... | 42.3% |
| Other Ingredients: | 57.7% |
| Total: | 100.0% |

*CAS No.148-79-8

Mertect 340-F is a suspension concentrate containing 4.1 pounds of Thiabendazole per gallon.

**KEEP OUT OF REACH OF CHILDREN.**

# CAUTION

**EPA Reg. No. 100-889**

**All applicable directions, restrictions and precautions on the EPA-registered label are to be followed. Before using Mertect 340-F as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA-registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.**

syngenta

# DIRECTIONS FOR USE

**Sweet Potato Post Harvest Treatment – Black Rot:** Mist washed roots, on a conveyor line with tumbling action, with 0.42 fl oz of Mertect 340-F in minimum of 0.5 gallons water per 2,000 lb of roots before packing. Ensure roots are dry before packing.

Mertect 340-F should be used as part of an Integrated Management Program that includes prevention of wounding during harvest, and maintaining proper sanitation, temperature, and humidity in storage.

## SEED TREATMENT

| Immediate Plantback |
|---|
| Cereal Grains: Barley, Corn, Oat, Rye, Triticale, and Wheat |
| Cucurbit Vegetables<br>Crop Group 9 |
| Brassica Head and Stem Vegetable<br>Crop Group 5-16 |
| Brassica Leafy Greens<br>Crop Subgroup 4-16B |
| Kohlrabi |
| Legume Vegetables (Succulent or Dried)<br>Crop Group 6 |
| Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)<br>Crop Group 18 |
| Onion, Bulb,<br>Crop Subgroup 3-07A |
| Root Vegetables (Except Sugarbeet)<br>Crop Subgroup 1B |
| Spinach |
| Sweet Potato |

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/ 100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| **Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay) Crop Group 18, Except Alfalfa [Not for Use in California]**<br><br>Bean, velvet<br>Clover<br>Kudzu<br>Lespedeza<br>Lupin<br>Sainfoin<br>Trefoil<br>Vetch<br>Vetch, crown<br>Vetch, milk | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Northern anthracnose (*Kabatiella caulivora*) | 0.004 | 8.7 | 0.28 | Calculations for use rate per 100 lb seed assume an average seed weight of 315,000 clover seeds per lb seed. |

| Crop | Target Diseases | Use Rate (mg ai/seed) | Use Rate (fl oz product/100 lb seed) | Use Rate (lb ai/100 lb seed) | Remarks |
|---|---|---|---|---|---|
| **Brassica Leafy Greens Crop Subgroup 4-16B**<br>Arugula; Broccoli raab; Broccoli, Chinese; Cabbage, Abyssinian; Cabbage, seakale; Chinese cabbage, bok choy; Collards; Cress, garden; Cress, upland; Hanover salad; Kale; Maca; Mizuna; Mustard greens; Radish, leaves; Rape greens; Rocket, wild; Shepherd's purse; Turnip greens; Watercress; Cultivars, varieties, and hybrids of these commodities | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Black leg disease (*Phoma lingam*, sexual stage *Leptosphaeria maculans*) | 0.002 | 3.5 | 0.11 | Calculations for use rate per 100 lb seed assume an average seed weight of 215,000 Brassica seeds per lb seed. |
| **Kohlrabi** | Seedling diseases caused by *Fusarium* spp.<br><br>Seed-borne Black leg disease (*Phoma lingam*, sexual stage *Leptosphaeria maculans*) | 0.002 | 3.5 | 0.11 | Calculations for use rate per 100 lb seed assume an average seed weight of 215,000 Brassica seeds per lb seed. |



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