PICARBUTRAZOX | GROUP U17 FUNGICIDE

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# Vayantis®

syngenta®

## Fungicide

A seed treatment product for protection against certain diseases of corn, soybean, cotton, sorghum, small grain cereals, rapeseed (canola varieties only), legume vegetables (succulent and dried), root vegetables, bulb vegetables, leafy vegetables, Brassica (cole) leafy vegetables, fruiting vegetables, cucurbit vegetables, herbs and spices, and leaf petiole vegetables

| *Active Ingredient:* | |
|---|---|
| Picarbutrazox* . . . . . | 36.0% |
| *Other Ingredients:* | 64.0% |
| *Total:* | 100.0% |

*CAS No. 500207-04-5

**1 quart** **Net Contents**

Vayantis® is a flowable concentrate for seed treatment containing 3.3 pounds picarbutrazox per gallon.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See additional precautionary statements and directions for use inside booklet.

**EPA Reg. No. 100-1635**

**EPA Est. 100-NE-001**

**Product of Japan**

**SCP 1635A-L1B 0622**
**4203976**

®

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## 1.0 FIRST AID

| FIRST AID | |
|---|---|
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. | |
| **HOTLINE NUMBER**<br>For 24-Hour Medical Emergency Assistance (Human or Animal)<br>or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),<br>Call<br>**1-800-888-8372** | |

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 Hazards to Humans and Domestic Animals

**CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. 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.

### 2.2 Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves: 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

#### 2.2.1 USER SAFETY REQUIREMENTS

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.

#### 2.2.2 ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs, or aircraft 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.

#### 2.2.3 USER SAFETY RECOMMENDATIONS

**Users should:**

- 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.

### 2.3 Environmental Hazards

**DO NOT** contaminate water bodies 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.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

For use in commercial seed treatment facilities. Use is also permitted as an end-use seed treatment on agricultural establishments before planting. **DO NOT** use for at-plant applications (e.g., hopper box, planter box, etc.). This product is to be used in liquid or slurry treaters only.

**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

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

## 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), notifications 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 (WPS).

**DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 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, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, Viton ≥14 mils
- Shoes plus socks

# 3.0 PRODUCT INFORMATION

Vayantis is a seed treatment fungicide which provides early season protection against Pythium and Phytophthora causing seed rot and damping-off. Where rate ranges are shown, use the higher rate when disease pressure is expected to be severe.

## 3.1 Resistance Management

For resistance management, Vayantis contains picarbutrazox, a Group U17 fungicide. Any fungal population may contain individuals naturally resistant to Vayantis and other Group U17 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies must be followed.

**To delay fungicide resistance:** Where possible, rotate the use of Vayantis or other Group U17 fungicides with different groups that control the same pathogens.

Vayantis is a U17 fungicide; therefore, continuous or sequential use of U17 fungicides within or during successive growing seasons must be avoided or reduced. Vayantis is not cross-resistant with other classes of fungicide that have different modes of action.

Seed treatment use must be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

Monitor treated fungal populations for sign of resistance development. If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM information for specific crops and disease problems in your area.

For further information or to report suspected resistance, contact Syngenta company representatives at 1-866-796-4368.

## 4.0 APPLICATION DIRECTIONS

**Important:** Always homogenize Vayantis thoroughly before using, either by shaking or recirculation.

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

Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibition against such mixing.

The typical density of Vayantis is 9.17 pounds of formulated product per gallon.

Consult the manufacturer of the application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment.

Consult slurry application partners for total slurry volume recommendations. The total application volume must be sufficient to provide desired level of coverage. Dilution is typically done with water or liquid inoculants.

Allow seed to dry before bagging.

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

### 4.1 TANK MIXES

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.

Mixing Vayantis with tank-mix partners: Add 1/2 of the required water to the mix tank and turn on the agitation. Mechanical agitation is preferred. Follow WALES method for mixing order of seed treatment products. Allow each tank-mix partner to completely disperse before adding the next product. Add the remaining amount of water and agitate. Maintain agitation until the entire slurry mixture has been used.

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

**Corn:** For additional protection from certain seed-borne and soil-borne pathogens, Vayantis may be combined with seed treatment products containing mefenoxam, azoxystrobin, fludioxonil, sedaxane and/or thiabendazole. For insect protection, Vayantis may be tank mixed with seed treatment products containing thiamethoxam or cyantraniliprole. For nematode protection in addition to comprehensive fungicide defense and insect protection, Vayantis may be tank mixed with seed treatment products containing abamectin, thiamethoxam, thiabendazole, fludioxonil, mefenoxam, and azoxystrobin.

**Soybeans:** For additional protection from certain seed-borne and soil-borne pathogens, Vayantis may be combined with seed treatment products containing mefenoxam, azoxystrobin, fludioxonil, thiabendazole, pydiflumetofen or sedaxane. For insect protection, Vayantis may be tank mixed with seed treatment products containing thiamethoxam or cyantraniliprole. For nematode protection in addition to comprehensive fungicide defense and insect protection, Vayantis may be tank mixed with seed treatment products containing *Pasteuria nishizawae* or abamectin, and thiamethoxam, mefenoxam, fludioxonil, and/or sedaxane. Vayantis is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta representative for directions before applying Vayantis with inoculants.

**Cereals:** For additional protection from certain seed-borne and soil-borne pathogens, Vayantis may be combined with seed treatment products containing pydiflumetofen, mefenoxam, difenoconazole, fludioxonil, thiabendazole and/or sedaxane. For insect protection, Vayantis may be tank mixed with seed treatment products containing thiamethoxam.

**Sorghum:** For additional control of certain seed and soil borne diseases, Vayantis may be combined with seed treatment products containing azoxystrobin, fludioxonil, mefenoxam, and sedaxane.

**Legumes:** For additional protection from certain seed-borne and soil-borne pathogens, Vayantis may be combined with seed treatment products containing pydiflumetofen, mefenoxam, fludioxonil, thiabendazole and/or sedaxane. For insect protection, Vayantis may be tank mixed with seed treatment products containing thiamethoxam.

**Cotton:** For additional control of certain seed and soil borne diseases, Vayantis may be combined with a seed treatment product containing azoxystrobin, fludioxonil, mefenoxam, and sedaxane.

**Vegetables:** For additional control of certain seed and soil borne diseases, Vayantis may be combined with the seed treatment products containing azoxystrobin, fludioxonil, and mefenoxam or azoxystrobin, fludioxonil, mefenoxam, and thiabendazole. In combination with these fungicides, Vayantis may also be mixed with seed treatments containing thiamethoxam and/or spinosad for early season protection of insect pests.

#### 4.1.1 TANK MIX COMPATIBILITY

When mixing Vayantis with other seed treatment products, test the compatibility prior to use by conducting a jar test: mix all intended seed treatments with the appropriate amount of water in a clear glass container. Mix well and allow mixture to sit for one hour. Remix and observe for incompatibility.

## 5.0 ROTATIONAL CROP RESTRICTIONS

In the event of crop failure or harvest of a crop grown from picarbutrazox treated seed, the field may be replanted immediately with labeled crops; all other crops - 30 days.

## 6.0 RESTRICTIONS

- **DO NOT** use for at-plant applications (e.g. hopper box, planter box, etc.). This product is to be used in liquid or slurry treaters only.
- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift.
- 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.
- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.
- For corn and/or soybean seed treated with Vayantis, **DO NOT** make more than 2 plantings on the same acres per year.
- Store away from food and feedstuffs.
- **DO NOT** allow children, pets, or livestock to have access to treated seeds.
- 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 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.
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to 1 inch: Corn, soybeans, small grain cereals, sorghum, Edible-Podded Legume Vegetables Crop Subgroup 6A, Succulent Shelled Pea and Bean Crop Subgroup 6B, Dried Shelled Pea and Bean (except Soybean) Crop Subgroup 6C, Cotton
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to $^1/_2$ inch: Cucurbit Vegetables Crop Group 9, Rapeseed (including Canola) Crop Subgroup 20A
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to $^1/_4$ inch: Root Vegetables Crop Subgroup 1A, Tuberous and Corm Vegetables (except potato) Crop Subgroup 1D, Leaves of Root and Tuber (except potato) Crop Group 2, Bulb Vegetable Crop Group 3-07, Brassica Head and Stem Vegetable Crop Group 5-16, Fruiting Vegetables Crop Group 8-10
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to $^1/_8$ inch: Leafy vegetables Crop Group 4-16; Stalk, Stem, and Leaf Petiole Vegetable Crop Group 22; Herb Crop Group 25; Spice Crop Group 26

## 7.0 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 picarbutrazox 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 Vayantis:

- 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.

- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to 1 inch: Corn, soybeans, small grain cereals, sorghum, Edible-Podded Legume Vegetables Crop Subgroup 6A, Succulent Shelled Pea and Bean Crop Subgroup 6B, Dried Shelled Pea and Bean (except Soybean) Crop Subgroup 6C, Cotton
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to 1/2 inch: Cucurbit Vegetables Crop Group 9, Rapeseed (including Canola) Crop Subgroup 20A
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to 1/4 inch: Root Vegetables Crop Subgroup 1A, Tuberous and Corm Vegetables (except potato) Crop Subgroup 1D, Leaves of Root and Tuber (except potato) Crop Group 2, Bulb Vegetable Crop Group 3-07, Brassica Head and Stem Vegetable Crop Group 5-16, Fruiting Vegetables Crop Group 8-10
- For the following seed types, treated seed must be planted into the soil at a depth greater than or equal to 1/8 inch: Leafy vegetables (except Watercress) Crop Group 4-16; Stalk, Stem, and Leaf Petiole Vegetable Crop Group 22; Herb Crop Group 25; Spice Crop Group 26
- Dispose of all excess treated seed. Leftover 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.
- In the event of crop failure or harvest of a crop grown from picarbutrazox treated seed, the field may be replanted immediately to the following crops: Corn; Soybeans; Cereals, Small Grains (Barley, Buckwheat, Oats, Pearl Millet, Proso Millet, Rye, Teosinte, Triticale, Wheat); Sorghum; Root Vegetables Crop Subgroup 1A, Tuberous and Corm Vegetables (except potato) Crop Subgroup 1D; Leaves of Root and Tuber Vegetables Crop Group 2; Bulb Vegetable Group Crop Group 3-07; Leafy Vegetables (Except Watercress) Crop Group 4-16; Brassica Head and Stem Vegetables Crop Group 5-16; Edible-Podded Legume Vegetables Crop Subgroup 6A; Succulent Shelled Pea and Bean Crop Subgroup 6B; Dried Shelled Pea and Bean (Except Soybean) Crop Subgroup 6C; Fruiting Vegetables Crop Group 8-10; Cucurbit Vegetables Crop Group 9; Rapeseed (including Canola) - Crop Subgroup 20A; Cotton; and Stalk, Stem and Leaf Petiole Vegetable Group (Crop Group 22). For all other crops, the minimum plant back interval is 30 days.
- 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.
- This seed has been treated with the following amount of picarbutrazox:
  - Corn – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
  - Soybeans – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
  - Small grain cereals (barley, buckwheat, oats, pearl millet, proso millet, rye, teosinte, wheat) – 1.25-2.5 g ai/100 kg seed (0.00125-0.0025 lb ai/100 lb seed)
  - Sorghum – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
  - Root Vegetables Crop Subgroup 1A, Tuberous and Corm Vegetables (except potato) Crop Subgroup 1D – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
  - Leaves of Root and Tuber Vegetables Crop Group 2 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
  - Bulb Vegetable Group Crop Group 3-07 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)

- Leafy Vegetables (except watercress) Crop Group 4-16 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Brassica Head and Stem Vegetables Crop Group 5-16 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Edible-Podded Legume Vegetables Crop Subgroup 6A – 1.25-5.15 g ai/100 kg seed (0.00125-0.00515 g ai/100 lb seed)
- Succulent Shelled Pea and bean Crop Subgroup 6B – 1.25-5.15 g ai/100 kg seed (0.00125-0.00515 g ai/100 lb seed)
- Dried Shelled Pea and Bean (except Soybean) Crop Subgroup 6C – 1.25-5.15 g ai/100 kg seed (0.00125-0.00515 g ai/100 lb seed)
- Fruiting Vegetables Crop Group 8-10 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Cucurbit Vegetables Crop Group 9 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Rapeseed (including Canola) Crop Subgroup 20A – 1.25-5.15 g ai/100 kg seed (0.00125-0.00515 g ai/100 lb seed)
- Cotton – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Stalk, Stem, and Leaf Petiole Vegetable Group Crop Group 22 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Herb Crop Group 25 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)
- Spice Crop Group 26 – 1-10 g ai/100 kg seed (0.001-0.01 lb ai/100 lb seed)

- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.
- For corn and/or soybean seed treated with Vayantis, **DO NOT** make more than 2 plantings on the same acres per year.

## 8.0 CROP USE DIRECTIONS

### 8.1 Corn*

| Crops | Diseases | USE RATE | | | |
|---|---|---|---|---|---|
| | | fl oz/ 100 lb seed | fl oz/ 80,000 seeds unit | mg ai/seed | g ai/100 kg seed |
| **Corn, includes field corn, sweet corn, popcorn and seed production** | *Pythium* spp. | 0.039 – 0.195 | 0.017 – 0.085 | 0.0025 – 0.0125 | 1 – 5 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | | | |
| The mg ai per seed, fl oz Vayantis per 100 lb seed, and fl oz Vayantis per 80,000 seeds rates are based on 1,800 seeds per pound. | | | | | |
| **USE RESTRICTIONS** | | | | | |
| 1) **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.<br>2) **DO NOT** make more than 2 plantings on the same acres per year. | | | | | |

*Not for use in California.

## 8.2 Soybeans*

| Crop | Diseases | USE RATE | | | |
|---|---|---|---|---|---|
| | | fl oz/ 100 lb seed | fl oz/ 140,000 seeds unit | mg ai/seed | g ai/100 kg seed |
| **Soybeans** | *Pythium* spp.<br>*Phytophthora* spp. | 0.039 - 0.195 | 0.018 – 0.090 | 0.0015 – 0.0075 | 1 – 5 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | | | |
| The mg ai per seed, fl oz Vayantis per 100 lb seed, and fl oz Vayantis per 140,000 seeds rates are based on 3,000 seeds per pound. | | | | | |
| **USE RESTRICTIONS** | | | | | |
| 1) **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.<br>2) **DO NOT** make more than 2 plantings on the same acres per year. | | | | | |

*Not for use in California.

## 8.3 Cereals, Small Grains (Barley, Buckwheat, Oats, Pearl Millet, Proso Millet, Rye, Teosinte, Triticale, Wheat)

| Crops | Diseases | USE RATE | |
|---|---|---|---|
| | | fl oz/100 lb seed (lb ai/100 lb seed) | mL/100 kg seed (g ai/100 kg seed) |
| **Small Grain Cereals** (includes forage, fodder and straw of cereal grains)<br><br>Barley<br>Buckwheat<br>Oats<br>Pearl Millet<br>Proso Millet<br>Rye<br>Teosinte<br>Triticale<br>Wheat | Pythium root rot due to *Pythium* spp.[1] | 0.05 - 0.10<br>(0.00125 - 0.0025) | 3.13 – 6.26<br>(1.25 – 2.5) |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | |
| [1]Use the higher rate when disease pressure is expected to be severe. | | | |
| **USE RESTRICTIONS** | | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | | |

## 8.4 Sorghum

| **Crops** | | |
|---|---|---|
| Sorghum | | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL® (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.5 Root Vegetables Crop Subgroup 1A

| Crops | | |
|---|---|---|
| Beet, garden (*Beta vulgaris*)<br>Beet, sugar (*Beta vulgaris*)<br>Burdock, Edible (*Arctium lappa*)<br>Carrot (*Daucus carota*)<br>Celeriac (celery root) (*Apium graveolens* var. *rapaceum*)<br>Chervil, turnip-rooted (*Chaerophyllum bulbosum*)<br>Chicory (*Cichorium intybus*)<br>Ginseng (*Panax quinquefolius*)<br>Horseradish (*Armoracia rusticana*)<br>Parsley, turnip-rooted (*Petroselinum crispum* var. *tuberosum*) | Parsnip (*Pastinaca sativa*)<br>Radish (*Raphanus sativus*)<br>Radish, oriental (daikon) (*Raphanus sativus* subvar. *longipinnatus*)<br>Rutabaga (*Brassica campestris* var. *napobrassica*)<br>Salsify (oyster plant) (*Tragopogon porrifolius*)<br>Salsify, black (*Scorzonera hispanica*)<br>Salsify, Spanish (*Scolymus hispanicus*)<br>Skirret (*Sium sisarum*)<br>Turnip (*Brassica rapa* var. *rapa*) | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| • Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control<br>• Excludes seed piece treatment. | | |

## 8.6 Tuberous and Corm Vegetables (except potato) Crop Subgroup 1D*

| Crops | | |
|---|---|---|
| Arracacha (*Arracacia xanthorrhiza*)<br>Arrowroot (*Maranta arundinacea*)<br>Artichoke, Chinese (*Stachys affinis*)<br>Artichoke, Jerusalem (*Helianthus tuberosus*)<br>Canna, Edible (Queensland arrowroot) (*Canna indica*)<br>Cassava, Bitter & Sweet (*Manihot esculenta*)<br>Chayote (root) (*Sechium edule*)<br>Chufa (*Cyperus esculentus*) | Dasheen (Taro) (*Colocasia esculenta*)<br>Ginger (*Zingiber officinale*)<br>Leren (*Calathea allouia*)<br>Sweet Potato (*Ipomoea batatas*)<br>Tanier (cocoyam) (*Xanthosoma sagittifolium*)<br>Turmeric (*Curcuma longa*)<br>Yam Bean (jicama, manoic pea) (*Pachyrhizus* spp.)<br>Yam, True (*Dioscorea* spp.) | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| • Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control<br>• Excludes seed piece treatment. | | |

*Not for use in California.

## 8.7 Leaves of Root and Tuber Vegetables Crop Group 2

| **Crops** | | |
|---|---|---|
| Beet, Garden (*Beta vulgaris*)<br>Beet, Sugar (*Beta vulgaris*)<br>Burdock, edible (*Arctium lappa*)<br>Carrot (*Daucus carota*)<br>Cassava, Bitter and Sweet (*Manihot esculenta*)<br>Celeriac (celery root) (*Apium graveolens* var. *rapaceum*)<br>Chervil, Turnip-Rooted (*Chaerophyllum bulbosum*)<br>Chicory (*Cichorium intybus*)<br>Dasheen (taro) (*Colocasia esculenta*) | Parsnip (*Pastinaca sativa*)<br>Radish (*Raphanus sativus*)<br>Radish, Oriental (daikon) (*Raphanus sativus* subvar. *longipinnatus*)<br>Rutabaga (*Brassica campestris* var. *napobrassica*)<br>Salsify, Black (*Scorzonera hispanica*)<br>Sweet Potato (*Ipomoea batatas*)<br>Tanier (cocoyam) (*Xanthosoma sagittifolium*)<br>Turnip (*Brassica rapa* var. *rapa*)<br>Yam, True (*Dioscorea* spp.) | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| 1) **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.<br>2) **DO NOT** feed to livestock. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.8 Bulb Vegetable Group Crop Group 3-07

| Crops | | |
|---|---|---|
| Chive, fresh leaves (*Allium schoenoprasum* L.)<br>Chive, Chinese, fresh leaves (*Allium tuberosum* Rottler ex Spreng)<br>Daylily, bulb (*Hemerocallis fulva* (L.) L. var. *fulva*)<br>Elegans hosta (*Hosta sieboldiana* (Hook.) Engl.)<br>Fritillaria, bulb (*Fritillaria* L. *fritillary*)<br>Fritillaria, leaves (*Fritillaria* L. *fritillary*)<br>Garlic, bulb (*Allium sativum* L. var. *sativum*)<br>Garlic, great-headed, bulb (*Allium ampeloprasum* L. var. *ampeloprasum*)<br>Garlic, Serpent, bulb (*Allium sativum* var. *ophioscorodon*)<br>Kurrat (*Allium kurrat* Schweinf. ex. K. Krause)<br>Lady's leek (*Allium cernuum* Roth)<br>Leek (*Allium ampeloprasum* L. var. *porrum* (L.) J. Gay, *A. porrum*);<br>Leek, wild (*Allium tricoccum* Aiton)<br>Lily, bulb (*Lilium* spp.; *Lilium leichtlinii* var. *maximowiczii, L. lancifolium*) | Onion, Beltsville bunching (*Allium x proliferum* (Moench) Schrad.)<br>Onion, bulb (*Allium cepa* L. var. *cepa*)<br>Onion, Chinese, bulb (*Allium chinense* G. Don)<br>Onion, fresh (*Allium fistulosum* L. var. *caespitosum* Makino)<br>Onion, green (*Allium cepa* L. var. *cepa*)<br>Onion, macrostem (*Allium macrostemon* Bunge)<br>Onion, pearl (*Allium porrum* var. *sectivum*)<br>Onion, potato, bulb (*Allium cepa* L. var. *aggregatum* G. Don)<br>Onion, tree, tops (*Allium x proliferum* (Moench) Schrad. ex Willd.)<br>Onion, Welsh, tops (*Allium fistulosum* L.)<br>Shallot, bulb (*Allium cepa* var. *aggregatum* G. Don)<br>Shallot, fresh leaves (*Allium cepa* var. *aggregatum* G. Don)<br>Cultivars, varieties, and/or hybrids of these | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.9 Leafy Vegetables (Except Spinach and Watercress) Crop Group 4-16

| Crops | | |
|---|---|---|
| Amaranth, Chinese<br>Amaranth, leafy<br>Arugula<br>Aster, Indian<br>Blackjack<br>Broccoli, Chinese<br>Broccoli raab<br>Cabbage, Abyssinian<br>Cabbage, Chinese, bok choy<br>Cabbage, seakale<br>Cat's whiskers<br>Cham-chwi<br>Cham-na-mul<br>Chervil, fresh leaves<br>Chipilin<br>Chrysanthemum, garland<br>Cilantro, fresh leaves<br>Collards<br>Corn salad<br>Cosmos<br>Cress, garden | Cress, upland<br>Dandelion, leaves<br>Dang-gwi, leaves<br>Dillweed<br>Dock<br>Dol-nam-mul<br>Ebolo<br>Endive<br>Escarole<br>Fameflower<br>Feather cockscomb<br>Good King Henry<br>Hanover salad<br>Huauzontle<br>Jute, leaves<br>Kale<br>Lettuce, bitter<br>Lettuce, head<br>Lettuce, leaf<br>Maca, leaves<br>Mizuna<br>Mustard greens | Orach<br>Parsley, fresh leaves<br>Plantain, buckhorn<br>Primrose, English<br>Purslane, garden<br>Purslane, winter<br>Radicchio<br>Radish, leaves<br>Rape greens<br>Rocket, wild<br>Shepherd's purse<br>Spinach, Malabar<br>Spinach, New Zealand<br>Spinach, tanier<br>Swiss chard<br>Turnip greens<br>Violet, Chinese, leaves<br>Cultivars, varieties, and hybrids of these commodities |

| Diseases | Use Rate (fl oz/100 lb seed) | Picarbutrazox (g ai/100 kg seed) |
|---|---|---|
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |

**Resistance Management:**
- Refer to **Section 3.1**.

**USE RESTRICTIONS**

- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.

**Additional Use Directions**

Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control

## 8.10 Spinach

| **Crops** | | |
|---|---|---|
| Spinach (*Spinacia oleracea*) | | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | | |
| Seeding rate <3,000,000 seeds/A | 0.034-0.384 | 1 – 10 |
| Seeding rate <4,000,000 seeds/A | 0.034-0.307 | 1 – 8 |
| Seeding rate <8,000,000 seeds/A | 0.034-0.230 | 1 – 6 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.11 Brassica Head and Stem Vegetables Crop Group 5-16

| **Crops** | | |
|---|---|---|
| Broccoli<br>Brussels sprouts<br>Cabbage<br>Cabbage, Chinese (napa) | Cauliflower<br>Cultivars, varieties, and hybrids of these commodities | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.12 Edible-Podded Legume Vegetables Crop Subgroup 6A

| Crops | Diseases | USE RATE | |
|---|---|---|---|
| | | fl oz/100 lb seed (lb ai/100 lb seed) | mL/100 kg seed (g ai/100 kg seed) |
| **Pea (*Pisum* spp.)** (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea) | Pythium seed rot, root rot, seedling rot and damping off due to *Pythium* spp.[1] | 0.05 - 0.2 (0.00125 – 0.005) | 3.13 – 12.52 (1.25 – 5.15) |
| **Bean (*Phaseolus* spp.)** (includes runner bean, snap bean, and wax bean)<br>**Bean (*Vigna* spp.)** (includes asparagus bean, Chinese longbean, moth bean, yardlong bean)<br>**Jackbean** (*Canavalia ensiformis*)<br>**Pea (*Pisum* spp.)** (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea)<br>**Pigeon pea** (*Cajanus cajan*)<br>**Soybean** (immature seed) (*Glycine max*)<br>**Sword bean** (*Canavalia gladiata*) | Pythium diseases due to *Pythium* spp.[1] | 0.05 - 0.2 (0.00125 – 0.005) | 3.13 – 12.52 (1.25 – 5.15) |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | |
| [1]When planting more susceptible varieties or when disease pressure is expected to be severe use higher rates. | | | |
| **USE RESTRICTIONS** | | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | | |

## 8.13 Succulent Shelled Pea and Bean Crop Subgroup 6B

| Crops | Diseases | USE RATE | |
|---|---|---|---|
| | | fl oz/100 lb seed (lb ai/100 lb seed) | mL/100 kg seed (g ai/100 kg seed) |
| **Pea (*Pisum* spp.)** (includes English pea, garden pea, green pea) | Pythium seed rot, root rot, seedling rot and damping off due to *Pythium* spp.[1] | 0.05 - 0.2 (0.00125 – 0.005) | 3.13 – 12.52 (1.25 – 5.15) |
| **Bean (*Phaseolus* spp.)** (includes lima bean (green))<br>**Bean (*Vigna* spp.)** (includes blackeyed pea, cowpea, southern pea)<br>**Broad bean** (fava bean) (*Vicia faba*)<br>**Pigeon pea** (*Cajanus cajan*) | Pythium diseases due to *Pythium* spp.[1] | 0.05 - 0.2 (0.00125 – 0.005) | 3.13 – 12.52 (1.25 – 5.15) |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | |
| [1]When planting more susceptible varieties or when disease pressure is expected to be severe use higher rates | | | |
| **USE RESTRICTIONS** | | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | | |

## 8.14 Dried Shelled Pea and Bean (Except Soybean) Crop Subgroup 6C

| Crops | Diseases | USE RATE | |
|---|---|---|---|
| | | **fl oz/100 lb seed (lb ai/100 lb seed)** | **mL/100 kg seed (g ai/100 kg seed)** |
| **Chickpea** (garbanzo bean) (*Cicer arietinum*)<br>**Lentil** (*Lens esculenta*)<br>**Pea (*Pisum* spp.)** (includes field pea) | Pythium seed rot, root rot, seedling rot and damping off due to *Pythium* spp.[1] | 0.05 - 0.2<br>(0.00125 – 0.005) | 3.13 – 12.52<br>(1.25 – 5.15) |
| **Bean (*Lupinus* spp.)** (includes grain lupin, sweet lupin, white lupin and white sweet lupin)<br>**Bean (*Phaseolus* spp.)** (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean)<br>**Bean (*Vigna* spp.)** (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean)<br>**Broad bean (dry)** (fava bean) (*Vicia faba*)<br>**Guar** (*Cyamopsis tetragonoloba*)<br>**Lablab bean** (hyacinth bean) (*Lablab purpureus*)<br>**Pigeon pea** (*Cajanus cajan*) | Pythium diseases due to *Pythium* spp.[1] | 0.05 - 0.2<br>(0.00125 – 0.005) | 3.13 – 12.52<br>(1.25 – 5.15) |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | |
| [1]When planting more susceptible varieties or when disease pressure is expected to be severe use higher rates | | | |
| **USE RESTRICTIONS** | | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | | |

## 8.15 Fruiting Vegetables Crop Group 8-10

| **Crops** | | |
|---|---|---|
| African eggplant<br>Bush tomato<br>Bell pepper<br>Cocona<br>Currant tomato<br>Eggplant<br>Garden huckleberry<br>Goji berry | Groundcherry<br>Martynia<br>Naranjilla<br>Okra<br>Pea eggplant<br>Pepino<br>Non-bell pepper | Roselle<br>Scarlet eggplant<br>Sunberry<br>Tomatillo<br>Tomato<br>Tree tomato<br>Cultivars, varieties, and/or hybrids of these |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.16 Cucurbit Vegetables Crop Group 9

| Crops | | |
|---|---|---|
| Chayote (fruit) (*Sechium edule*)<br>Chinese waxgourd (Chinese preserving melon) (*Benincasa hispida*)<br>Citron melon (*Citrullus lanatus* var. *citroides*)<br>Cucumber (*Cucumis sativus*)<br>Gherkin (*Cucumis anguria*)<br>Gourd, edible (*Lagenaria* spp.)<br>Hyotan<br>Cucuzza<br>Gourd, edible (*Luffa acutangula, L. cylindrical*)<br>Hechima<br>Chinese okra<br>*Momordica* spp.<br>Balsam apple<br>Balsam pear<br>Bittermelon<br>Chinese cucumber | Muskmelon (hybrids and/or cultivars of *Cucumis melo*)<br>Cantaloupe<br>Casaba<br>Crenshaw melon<br>Golden pershaw melon<br>Honeydew melon<br>Honey balls<br>Mango melon<br>Persian melon<br>Pineapple melon<br>Santa Claus melon<br>Snake melon<br>True cantaloupe<br>Pumpkin (*Cucurbita* spp.) | Squash, summer (*Cucurbita pepo* var. *melopepo*)<br>Crookneck squash<br>Scallop squash<br>Straightneck squash<br>Vegetable marrow<br>Zucchini<br>Squash, winter (*Cucurbita maxima, C. moschata*)<br>Butternut squash<br>Calabaza<br>Hubbard squash<br>Squash, winter (*Cucurbita mixta, C. pepo*):<br>Acorn squash<br>Spaghetti squash<br>Watermelon (hybrids and/or varieties of *Citrullus lanatus*) |

| Diseases | Use Rate (fl oz/100 lb seed) | Picarbutrazox (g ai/100 kg seed) |
|---|---|---|
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |

**Resistance Management:**
- Refer to **Section 3.1**.

**USE RESTRICTIONS**

- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.

**Additional Use Directions**

Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control

## 8.17 Rapeseed (including Canola) - Crop Subgroup 20A*

| Crops (Including cultivars, varieties, and/or hybrids of these) | Diseases | USE RATE | |
|---|---|---|---|
| | | fl oz/100 lb seed (lb ai/100 lb seed) | mL/100 kg seed (g ai/100 kg seed) µg ai/seed |
| Borage<br>Canola<br>Crambe<br>Cuphea<br>Echium<br>Flax seed<br>Gold of pleasure<br>Hare's ear mustard<br>Lesquerella<br>Lunaria<br>Meadowfoam<br>Milkweed<br>Mustard seed<br>Oil radish<br>Poppy seed<br>Rapeseed<br>Sesame<br>Sweet rocket | Root rot, seed rot and damping off due to *Pythium* spp.[1] | 0.05 - 0.2<br>(0.00125 – 0.005) | 3.13 – 12.52<br>(1.25 – 5.15)<br><br>0.0625 - 0.25 µg ai/seed[2] |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | | |
| [1]When planting more susceptible varieties or when disease pressure is expected to be severe use higher rates.<br>[2]Based on 5g/1,000 (90,800 seeds/lb) seed weight | | | |
| **USE RESTRICTIONS** | | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | | |

*Not for use in California.

## 8.18 Cotton

| Crops | | |
|---|---|---|
| Cotton | | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) and Dynasty® (containing azoxystrobin, EPA Reg No. 100-1159) for increased Pythium control | | |

## 8.19 Stalk, Stem and Leaf Petiole Vegetable Group (Crop Group 22)

| Crops | | |
|---|---|---|
| Agave (*Agave* spp.)<br>Aloe vera (*Aloe vera* (L.) Burm.f.)<br>Asparagus (*Asparagus officinalis* L.)<br>Bamboo, shoots (*Arundinaria* spp.; *Bambusa* spp., *Chimonobambusa* spp.; *Dendrocalamus* spp., *Fargesia* spp.; *Gigantochloa* spp., *Nastus elatus*; *Phyllostachys* spp.; *Thyrsostachys* spp.)<br>Cardoon<br>Celery (*Apium graveolens* var. *dulce*)<br>Celery, Chinese (*Apium graveolens* var. *secalinum*)<br>Celtuce (*Lactuca sativa* var. *angustana*)<br>Fennel, Florence, fresh leaves and stalk (*Foeniculum vulgare* subsp. *vulgare* var. *azoricum* (Mill.) Thell.) | Fern, edible, fiddlehead<br>Fuki<br>Kale, sea (*Crambe maritima* L.)<br>Kohlrabi (*Brassica oleracea* L. var *gongylodes* L.)<br>Palm hearts (various species)<br>Prickly pear, pads (*Opuntia ficus-indica* (L.) Mill., *Opuntia* spp.)<br>Prickly pear, Texas, pads (*Opuntia engelmannii* Salm-Dyck ex Engelm. var. *lindheimeri* (Engelm.) B.D. Parfitt & Pinkav)<br>Rhubarb (*Rheum x rhabarbarum* L.)<br>Udo (*Aralia cordata* Thunb.)<br>Zuiki (*Colocasia gigantea* (Blume) Hook. F.)<br>Cultivars, varieties, and hybrids of these commodities | |
| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |
| **Resistance Management:**<br>• Refer to **Section 3.1**. | | |
| **USE RESTRICTIONS** | | |
| • **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year. | | |
| **Additional Use Directions** | | |
| Vayantis may be combined with Apron XL (containing mefenoxam, EPA Reg. No. 100-799) for increased Pythium control | | |

## 8.20 Herb Crop Group 25

| Crops | | | |
|---|---|---|---|
| Agrimony | Caraway | Fennel, common | Indian tobacco |
| Amla | Cat's claw | Fennel, Florence | Ironwort |
| Angelica | Catnip | Fennel, Spanish | Ivy |
| Angelica, dahurian | Catnip, Japanese | Fenugreek | Jamaica dogwood |
| Applemint | Celandine, greater | Feverfew | Jasmine |
| Avarum | Celandine, lesser | Field pennycress | Labrador tea |
| Balloon pea | Celery | Flowers, edible, multiple species | Lavender |
| Balm | Centaury | Fumitory | Lemon verbena |
| Barrenwort | Chaste tree | Galbanum | Lemongrass |
| Basil | Chaste tree, Chinese | Galega | Lovage |
| Basil, American | Chervil | Gambir | Love-in-a-mist |
| Basil, Greek | Chinese blackberry | Geranium | Mamaki |
| Basil, holy | Chinese foxglove | Geranium, lemon | Marigold |
| Basil, lemon | Chive | Geranium, rose | Marigold, African |
| Basil, Russian | Chive, Chinese | Germander, golden | Marigold, Aztec |
| Bay | Cicely, sweet | Goldenrod, European | Marigold, French |
| Bearberry | Cilantro | Goldenseal | Marigold, Irish lace |
| Bisongrass | Clary | Gotu kola | Marigold, licorice |
| Blue mallow | Coriander, Bolivian | Greater periwinkle | Marigold, Mexican mint |
| Boneset | Coriander, Vietnamese | Guayusa | Marigold, signet |
| Borage | Costmary | Guyana | Marjoram |
| Borage, Indian | Creat | Gumweed | Marjoram, pot |
| Burnet | Culantro | Gymnema | Marjoram, sweet |
| Burnet, garden | Curry leaf | Gypsywort | Marshmallow |
| Burnet, salad | Curryplant | Hawthorn | Meadowsweet |
| Butterbur | Cut leaf | Heal-all | Mint |
| Calamint | Damiana | Hemp nettle | Mint, corn |
| Calamint, large-flower | Dillweed | Honewort | Mint, Korean |
| Calamint, lesser | Dokudami | Honeybush | Monarda |
| Calendula | Echinacea | Horehound | Moringa |
| Caltrop | Epazote | Horsemint | Motherwort |
| Camomile (Chamomile) | Eucommia | Horsetail | Mountainmint |
| Camomile (Chamomile), German | Evening primrose | Hyssop | |
| Camomile (Chamomile), Roman | Eyebright | Hyssop, anise | |

*continued…*

## 8.20 Herb Crop Group 25 *(continued)*

| **Crops** ***(continued)*** | | | |
|---|---|---|---|
| Mountainmint, clustered | Partridge berry | Small flower willow head | Toon, Chinese |
| Mountainmint, hoary | Patchouli | Sorrel | Toothed clubmoss |
| Mountainmint, Virginia | Pennyroyal | Sorrel, French | Trailing arbutus |
| Mountainmint, whorled | Pepper leaf, black | Sorrel, garden | Vasaka |
| Mugwort | Peppermint | Southernwood | Verbena, blue |
| Mulberry, white | Perilla | Spearmint | Veronica |
| Mullein | Pill bearing spurge | Spearmint, Scotch | Violet |
| Mustard, hedge | Pipsissewa | Spilanthes | Watermint |
| Nasturtium | Plantain, common | Spotted beebalm | Waterpepper |
| Nasturtium, bush | Rooibos | St. John's Wort | Wild bergamot |
| Nasturtium, garden | Rose | Stevia | Wintergreen |
| Nettle, stinging | Rosemary | Stoneroot | Wood betony |
| Oregano | Sage | Swamp leaf | Woodruff |
| Oregano, Mexican | Sage, Greek | Tansy | Wormwood |
| Oregano, Puerto Rico | Sage, Spanish | Tarragon | Wormwood, Roman |
| Oswego tea | Sage, white | Thuja | Yarrow |
| Oswego teat | Savory, summer | Thyme | Yellow gentian |
| Pandan leaf | Savory, winter | Thyme, creeping | Yerba santa |
| Pansy | Senna | Thyme, lemon | Yomogi |
| Paracress | Siberian fir | Thyme, mastic | Cultivars, varieties, and hybrids of these commodities |
| Parsley | Skullcap | | |

| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
|---|---|---|
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |

**Resistance Management:**
- Refer to **Section 3.1**.

**USE RESTRICTIONS**

- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.

## 8.21 Spice Crop Group 26

| Crops | | | |
|---|---|---|---|
| Ajowan, seed | Caper spurge, seed | Cotton, bark | Guggul |
| Alder buckhorn | Caraway, black | Crampbark | Gum Arabic |
| Allspice | Caraway, fruit | Cubeb, seed | Gum ghatti |
| Ambrette, seed | Cardamom, black | Culantro, seed | Gum karaya |
| Amla, seed | Cardamom, Ethiopian | Culvers root | Gum tragacanth |
| Angelica, dahurian, seed | Cardamom, green | Cumin | Haw, black |
| Angelica, seed | Cardamom, Nepal | Cumin, black | Honewort, seed |
| Angostura, bark | Cardamom-amomum | Dill, seed | Imperatoria |
| Anise pepper | Cascara sagrada | Dorrigo pepper, berry | Indian tobacco, seed |
| Anise, seed | Cassia, bark | Dorrigo pepper, leaf | Iva |
| Anise, star | Cassia, Chinese, bark | Dragon blood | Jalap |
| Annatto, seed | Cassia, Chinese, fruit | Echinacea, seed | Jamaica dogwood, bark |
| Asafoetida | Cassia, fruit | Epimedium | Juniper berry |
| Ashwagandha, fruit | Cat's claw, bark | Eucalyptus | Kaffir lime, leaf |
| Autumn crocus | Catechu, bark | Eucommia, bark | Kewra |
| Balsam, Peruvian | Celery, seed | European beech | Kokam |
| Barberry, bark | Chaste tree, berry | Felty germander | Linden, leaf |
| Batavia-cassia, bark | Chaste tree, Chinese, roots | Fennel flower, seed | Lovage, seed |
| Batavia-cassia, fruit | Chervil, seed | Fennel, common, fruit | Mace |
| Belleric myrobalan | Chinese hawthorn | Fennel, common, seed | Magnolia, bark |
| Betel vine | Chinese nutmeg tree | Fennel, Florence, fruit | Mahaleb |
| Birch, bark | Chinese wineberry, fruit | Fennel, Florence, seed | Malabar cardamom |
| Bisnaga, seed | Chinese-pepper | Fenugreek, seed | Malabar-tamarind |
| Bitterwood | Cinnamon, bark | Fingerroot | Malabathrum |
| Black bread weed | Cinnamon, fruit | Flame lily, seed | Mastic |
| Bloodroot | Cinnamon, Saigon, bark | Frankincense | Micromeria, white |
| Blue mallee | Cinnamon, Saigon, fruit | Frankincense, Indian | Milk thistle |
| Blushwood, seed | Clove buds | Fringetree, bark | Mioga |
| Boldo, leaf | Clusterleaf | Galbanum, resin | Miracle fruit |
| Buchu | Comfrey | Gambooge | Mistletoe |
| Calamus root | Copaiba | Grains of paradise | Mojave yucca |
| Candlebush | Coptis | Grains of Selim | Muira puama |
| Canella, bark | Coriander, fruit | Guaiac | Mustard, black |
| Caper buds | Coriander, seed | Guarana | Mustard, brown |

*continued...*

## 8.21 Spice Crop Group 26 *(continued)*

| **Crops** ***(continued)*** | | | |
|---|---|---|---|
| Mustard, seed | Pepper, white | Resin spurge | Tasmanian pepper, berry |
| Mustard, white | Pepperbush, berry | Rue | Tasmanian pepper, leaf |
| Myrrh | Pepperbush, leaf | Saffron crocus | Threeleaf caper |
| Myrrh, bisabol | Peppercorn, green | Sandalwood, seed | Tsaoko |
| Myrtle, anise | Peppertree | Sassafras, bark | Vanilla |
| Myrtle, leaf | Peppertree, Peruvian | Sassafras, leaf | Wattleseed |
| Myrtle, lemon | Perilla, seed | Saunders, red | White willow |
| Nasturtium, bush, pods | Phellodendron | Saw palmetto | Willow |
| Nasturtium, garden, pods | Pine, maritime | Sesame, seed | Witch hazel |
| Nasturtium, pods | Poppy, seed | Silktree, bark | Yaw root |
| Nettle, stinging, seed | Prickly ash, Chinese | Simaruba, bark | Yellow gentian, roots |
| Nutmeg | Prickly ash, Southern, bark | Skunk cabbage, root | Yohimbe |
| Osha | Pygeum | Slippery elm | Cultivars, varieties, and hybrids of these commodities |
| Pepper, black | Qing hua jiao | Stemona, root | |
| Pepper, Indian long | Quassia, bark | Suma | |
| Pepper, Javanese long | Quebracho, bark | Sumac, fragrant | |
| Pepper, leaf | Quillaja | Sumac, smooth, leaf | |
| Pepper, pink | Quinine | Taheebo, bark | |
| Pepper, Sichuan | Rauwolfia, bark | Tamarind, seed | |

| **Diseases** | **Use Rate (fl oz/100 lb seed)** | **Picarbutrazox (g ai/100 kg seed)** |
|---|---|---|
| Pythium Damping-off | 0.0384 – 0.384 | 1 – 10 |

**Resistance Management:**
- Refer to **Section 3.1**.

**USE RESTRICTIONS**

- **DO NOT** use at a rate that will result in more than 0.0178 lb ai/A (8.1 grams ai/A) per year.

## 9.0 STORAGE AND DISPOSAL

# STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### Pesticide Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

### Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

### 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 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)

**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 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)

**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**

## 10.0 CONDITIONS OF SALE AND LIMITATION OF 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.

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-866-796-4368

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

**SCP 1635A-L1B 0622**
**4203976**

(01) 0 07 02941 67652 7

PICARBUTRAZOX | GROUP U17 | FUNGICIDE

# Vayantis®

syngenta®

## Fungicide

A seed treatment product for protection against certain diseases of corn, soybean, cotton, sorghum, small grain cereals, rapeseed (canola varieties only), legume vegetables (succulent and dried), root vegetables, bulb vegetables, leafy vegetables, Brassica (cole) leafy vegetables, fruiting vegetables, cucurbit vegetables, herbs and spices, and leaf petiole vegetables

Product of Japan

**1 quart**

**Net Contents**

Vayantis®

| Active Ingredient: | |
|---|---|
| Picarbutrazox* | 36.0% |
| Other Ingredients: | 64.0% |
| Total: | 100.0% |

*CAS No. 500207-04-5

Vayantis® is a flowable concentrate for seed treatment containing 3.3 pounds picarbutrazox per gallon.

See additional precautionary statements and directions for use inside booklet.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-1635

EPA Est. 100-NE-001



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

**SCP 1635A-L1B 0622**
**4203976**

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

### FIRST AID

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372.**

### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. 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.

**Environmental Hazards: DO NOT** contaminate water bodies 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.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

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