OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

July 15, 2024

Brian Bret
Regulatory Leader
Corteva Agriscience LLC
9330 Zionsville Road,
Indianapolis, IN 46268

Subject: PRIA Label Amendment – Add early soil application for soil diseases in legumes and peanuts; add approved tree nut crops from Fontelis label; add "DuPont" to ABN; other minor changes.
Product Name: Vertisan
EPA Registration Number: 352-836
Application Date: September 1, 2022
Case Number: 472948

Dear Brian Bret:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one 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 FIFRA 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) lists 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 Elisha Graham graham.elisha@epa.gov.

Sincerely,

Kristy Crews, Ph.D., Product Manager 22
Fungicide Branch, Registration Division (7505T)
Office of Pesticide Programs, USEPA

Enclosure- Stamped Label

(Booklet cover)

PENTHIOPYRAD	GROUP	7	FUNGICIDE

Vertisan®

[Alternate Brand Name: DuPont™ Vertisan®]

FUNGICIDE

Emulsifiable Concentrate

Active Ingredient	***By Weight***
Penthiopyrad	20.6%
Other Ingredients	79.4%
TOTAL	100.0%

Contains 1.67 pounds of penthiopyrad per gallon of product.

Keep Out of Reach of Children

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

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

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under “Agricultural Use Requirements” in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including First Aid and Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 352-836 EPA Est. No. _____

Produced for
Corteva Agriscience LLC
9330 Zionsville Road
Indianapolis, IN 46268

NET CONTENT___

[Booklet)

First Aid

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.

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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May be harmful if swallowed. 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. Wear protective eyewear*, long-sleeved shirt and long pants, socks and shoes.

*Protective eyewear is mandatory.

Personal Protective Equipment (PPE)

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

- Long-sleeved shirt
- Long pants
- Shoes and socks
- Protective eyewear (goggles, face shield, or safety glasses)

See engineering control statements for additional 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.

Engineering Control Statements

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.

User Safety Recommendations

User should:

- 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. 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.

Environmental Hazards

This pesticide is toxic to fish, aquatic invertebrates, and oysters. For terrestrial uses: Do not apply directly to water, or 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Surface Water Advisory: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read all Directions for Use before applying.

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 the label about personal protective equipment (PPE), and restricted-entry interval, and notification to workers (as applicable). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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 State or Tribal agency responsible for pesticide regulation.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. 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
- Shoes and socks
- Chemical resistant gloves (made of any waterproof material)
- Protective eyewear (goggles, face shield, or safety glasses)

STORAGE AND DISPOSAL

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

STORAGE: Keep container closed when not in use. Always store pesticides in the original container only, away from other pesticides, food, pet food, feed, seed, fertilizers, and veterinary supplies. If a leaky container must be contained within another, mark the outer container to identify the contents. Storage areas must be locked and secure from vandalism, with precautionary signs posted. The storage area must

be dry, well-lit, and well-ventilated. Keep pesticide storage areas clean. Clean up any spills promptly. Protect pesticide containers from extreme heat and cold. Store herbicides, insecticides and fungicides in separate areas within the storage unit. Place liquid formulations on lower shelves and dry formulations above. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies. If spill cleanup PPE is stored nearby, but outside the pesticide storage area, it will be accessible when needed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Rigid Plastic Containers (Less Than 5 Gallons): Nonrefillable 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Nonrefillable Rigid Plastic Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with Vertisan fungicide containing penthiopyrad only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use container, contact Corteva Agriscience at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact Corteva Agriscience at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact Corteva Agriscience at 1-800-992-5994, day or night.

Product Information

Vertisan® fungicide (referred to below as Vertisan fungicide or Vertisan), an emulsifiable concentrate containing penthiopyrad, is recommended for use as a spray for the control of many important listed plant diseases.

Vertisan must be used only in accordance with instructions on this label, in separately issued labeling or exemptions under FIFRA (Supplemental Labels, Special Local Need Registration, FIFRA Section 18 exemptions), or as otherwise permitted by FIFRA. Always read the entire label including the Limitation of Warranty and Liability.

Vertisan is a broad-spectrum fungicide, recommended for control of foliar and soil-borne plant diseases and has preventive, curative, and locally systemic activity. Vertisan must be applied in a regularly scheduled protective spray program in rotation with other fungicides. See directions below for specific crop/disease recommendations.

Vertisan can be applied with commonly used ground equipment, hose-end, or pressurized sprayers, and air or chemigation equipment, except as otherwise directed, using sufficient water to obtain thorough coverage of plants. Thorough coverage of all foliage is essential for effective disease control. Maintain agitation during mixing and application to assure uniform product suspension.

Use Restrictions

- Use this product only in commercial and farm plantings.
- Do not use for home plantings.
- Do not formulate this product into other end-use products.
- In New York, do not sell, sell into, distribute, or use in Nassau or Suffolk Counties.
- In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

Application Volumes

- For conventional ground application, apply a minimum of 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of foliage.
- For air-assisted ground application, apply a minimum of 10 gallons per acre.
- For aerial application, apply a minimum of 2 gallons per acre.

Rainfastness: Vertisan rapidly penetrates into plant tissues and is rainfast within 1 hour after application.

CULTIVAR/VARIETAL CROP SAFETY

Not all crops within a crop group, and not all varieties, cultivars or hybrids of crops, have been individually tested for crop safety. It is not possible to evaluate for crop safety all applications of Vertisan on all crops within a crop group, on all varieties, cultivars, or hybrids of those crops, or under all environmental conditions and growing circumstances. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

INTEGRATED PEST MANAGEMENT

Corteva recommends the use of Integrated Pest Management (IPM) programs to control pests. Vertisan may be used as part of an IPM program which can include biological, cultural, and genetic practices

aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when disease forecasting models reach locally determined action levels. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine the appropriate management, cultural practice and treatment threshold levels for the specific crop, geography and diseases.

RESISTANCE MANAGEMENT

For resistance management, Vertisan contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to Vertisan and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.
To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Vertisan or other Group 7 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 call 1-800-258-3033. You can also contact your pesticide distributor or university extension specialist to report resistance.

TANK MIXTURES

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. The crop safety of all tank mixtures with Vertisan which may include physically compatible pesticides, fertilizers, adjuvants, and/or additives, has not been tested. When considering a tank mixture with Vertisan it is important to understand crop safety. To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.

Corteva will not be responsible for any crop injury arising from the use of a tank mixture.

Some materials including oils, surfactants, adjuvants and pesticide formulations when applied individually, sequentially, or in tank mixtures may solubilize the plant cuticle, facilitate penetration into plant tissue, and increase the potential for crop injury.

Always follow the tank mix instructions of the product label that is most restrictive. Consult a Corteva representative or local agricultural authorities for more information concerning tank mixtures.

APPLICATION INFORMATION

Mixing Instructions

1. Fill clean spray tank ¼ – ½ full of water.
2. While agitating, add the required amount of Vertisan, continuing agitation until the product is completely dispersed.
3. Continue filling the tank, with agitation, following the sequence listed below in 'tank mixing sequence.'

Adjuvants

Vertisan fungicide may be used with adjuvants, for example, nonionic surfactants, crop oils, methylated seed oils, and blends at typical agricultural use rates for these adjuvants.

Physical Compatibility

Vertisan is physically compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides, and biological control products. However, since the formulations of products are always changing, it is important to test the physical compatibility of desired tank mixes and check for undesirable physical effects, including settling out or flocculation. To determine the physical compatibility, add the proportions of the tank mix products and water to a small container, mix thoroughly and allow to stand for 20 minutes. If the combination remains mixed, or can be re-mixed readily, it may be considered physically compatible.

Tank Mixing Sequence

When using in a tank mix, add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. water-soluble bag
2. water-dispersible granules
3. wettable powders
4. water-based suspension concentrates
5. water-soluble concentrates
6. oil-based suspension concentrates
7. emulsifiable concentrates (Vertisan)
8. adjuvants, surfactants, and oils
9. soluble fertilizers
10. drift retardants

CROP ROTATION

The following list of crops and crop groups (with examples) may be planted immediately after harvest:

Alfalfa
Banana
Berry, low growing berry crop subgroup 13-07G (strawberry, lowbush blueberry)
Brassica head and stem vegetable crop group 5-16 (cabbage, broccoli, cauliflower)
Brassica leafy greens vegetable crop subgroup 4-16B (collards, kale, mustard greens)
Bulb vegetable crop group 3-07 (onion, garlic, chives)
Bushberry crop subgroup 13-07B (highbush blueberry)
Caneberry crop subgroup 13-07A (blackberries, raspberries)
Celtuce
Cereal grains (barley, corn, oats, rye, sorghum, wheat)
Cucurbit vegetable crop group 9 (cucumber, cantaloupe, watermelon, squashes)

Fennel, Florence
Fruiting vegetable crop group 8-10 (tomato, pepper)
Kohlrabi
Leaf petiole vegetable crop subgroup 22B (celery, rhubarb)
Leafy greens vegetable crop subgroup 4-16A (lettuce, spinach)
Legume vegetable crop group 6 (bean, pea: subgroup 6A edible podded, subgroup 6B succulent shelled, and subgroup 6C dried shelled)
Oilseed crop group 20 (canola, cotton, sunflower)
Peanuts
Pome fruit crop group 11-10 (apple, pear)
Root vegetable crop subgroup 1B and leaves of root vegetable crop group 2 (carrot, garden beet, radish, turnip)
Soybean
Stone fruit crop group 12-12 (cherries, peaches, plums)
Sugar beet
Tree nut crop group 14-12 (almond, filbert, pistachio, walnut)
Tuberous and corm vegetable crop subgroup 1C and leaves of tuberous and corm vegetable crop group 2 (potato, sweet potato, yam)

All other crops cannot be planted until 120 days after the last application of Vertisan fungicide.

Table 1. Vertisan fungicide labeled Crop and Crop Groups, Pre-Harvest Intervals, Maximum Single Application Rates, and Total Rates allowed per year

Crop, Crop Group or Subgroup with examples†	Minimum Time from Application to Harvest (PHI days or crop stage)	Maximum Rate per Acre per Application fl oz product (lb active ingredient)	Maximum Product per Acre per Year** fl oz product (lb active ingredient)
Alfalfa	14 days	24 fl oz (0.31 lb)	48 fl oz (0.63 lb)
Banana*	0 day	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)
Berry, low growing (subgroup 13-07G) strawberry, lowbush blueberry *	0 day	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Brassica, head and stem vegetables, (group 5-16) cabbage, broccoli, cauliflower	0 day	30 fl oz (0.39 lb)	72 fl oz** (0.94 lb)**
Bulb vegetables (group 3-07) onion, garlic, chives	3 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Bushberries (subgroup 13-07B) highbush blueberry	0 day	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**

Caneberries (subgroup 13-07A) blackberries, raspberries	0 day	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Canola*	21 days	20 fl oz (0.26 lb)	41 fl oz (0.53 lb)
Cereal grains* Barley, Wheat, oats, rye	0 day forage and hay, Do not apply after flowering (10.5.1)	24 fl oz (0.31 lb)	48 fl oz (0.63 lb)
Cereal grains* Sorghum	0 day forage 30 days grain and stover	24 fl oz (0.31 lb)	48 fl oz (0.63 lb)
Corn*	0 day forage 7 days grain and stover	24 fl oz (0.31 lb)	48 fl oz (0.63 lb)
Cotton*	21 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Cucurbit vegetables (group 9) cucumber, cantaloupe, watermelon, squashes	1 day	16 fl oz (0.21 lb)	67 fl oz** (0.87 lb)**
Fruiting vegetables (group 8-10) tomato, peppers	0 day	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Leaf petiole vegetables (subgroup 22B), celery, rhubarb	3 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Leafy greens (subgroup 4-16A) lettuce, spinach	3 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Leafy greens Brassica (subgroup 4-16B) collards, kale, mustard greens	0 day	30 fl oz (0.39 lb)	72 fl oz** (0.94 lb)**
Legume vegetables (subgroup 6A edible podded and subgroup 6B succulent shelled)	0 day	30 fl oz (0.39 lb)	72 fl oz** (0.94 lb)**
Legume vegetables Bean, pea (subgroup 6C dried shelled, except soybean)	0 day vine and hay 21 days seed	20 fl oz (0.26 lb)	41 fl oz (0.53 lb)

Peanut*	14 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**
Pome fruit (group 11-10) apple, pear	28 days	20 fl oz (0.26 lb)	61 fl oz (0.80 lb)
Root vegetables and leaves (except sugar beets) (subgroup 1B, group 2) carrot, garden beet, radish, turnips	0 day	30 fl oz (0.39 lb)	61 fl oz (0.80 lb)
Soybeans*	0 day forage and hay 14 days seed	30 fl oz (0.39 lb)	61 fl oz (0.80 lb)
Stone fruit (group 12-12) cherries, peaches, plums	0 day	20 fl oz (0.26 lb)	61 fl oz (0.80 lb)
Sugar beet*	7 days 0 day forage	30 fl oz (0.39 lb)	61 fl oz (0.80 lb)
Sunflower*	14 days	30 fl oz (0.39 lb)	61 fl oz (0.80 lb)
Tree nuts (group 14-12) almond, filbert, pistachio, walnut	14 days	20 fl oz (0.26 lb)	61 fl oz (0.80 lb)
Tuberous and corm vegetables and leaves Potato, sweet potato, yam	7 days	24 fl oz (0.31 lb)	72 fl oz** (0.94 lb)**

[*Note to reviewer. We may or may not include an asterisks in the following "*Not for use in California." on the printed label*.]

**In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

† Refer to the crop specific direction for use tables to determine exactly which crop species in each crop area or crop group are included.

Soilborne/Seedling Disease Control for Cotton, Sugar Beets, and Tuberous and Corm Vegetables (Potatoes, Sweet Potatoes, Yams)

Vertisan can provide suppression or control of soilborne diseases when applied early in the growing season using specific application methods like pre-plant incorporation prior to planting, or in-furrow or banded applications. A single early season application of Vertisan can be made to the soil by one of the following methods.

Banded application:

Apply Vertisan prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the targeted foliage and surrounding soil surface. Band width should be limited to 6-8 inches or less. Refer to the Soil Application Rates table.

In-furrow application:

Apply Vertisan as an in-furrow spray in 3-15 gallons of water at planting. Adjust the spray pattern so the spray is directed into the furrow on the seed and surrounding soil. The spray pattern should be a 4- to 8-inch band that is applied to the seed just prior to being covered with soil. Refer to the Soil Application Rates table.

Pre-plant incorporation:

Apply Vertisan to the soil in a band or broadcast spray. Incorporate the Vertisan to a depth of 1-2 inches using a rototiller, cultivator, rotary hoe, irrigation, or similar methodology. Refer to the Soil Application Rates table.

Soil Application Rates for Cotton, Sugar Beets, and Tuberous and Corm Vegetables (Potatoes, Sweet Potatoes, Yams)

Rate per 1000 row feet	**Product per Acre (fl oz)[a]**						
fl oz prod/ 1000 ft row	22 " rows	30 " rows	32 " rows	34 " rows	36 " rows	38 " rows	40 " rows
0.7	16.7	12.2	11.4	10.9	10.2	9.6	9.2
1.2	28.6[b]	20.9	19.6	18.5	17.4	16.5	15.7
1.6	-	27.9[c]	26.1[d]	24.6[e]	23.0	22.0	21.1

[a] Consult the maximum rate per acre allowed for the crop, and do not exceed that rate when using this application method.

[b] In 22 inch rows, the highest rate for crops with 24 fl oz/acre maximums is 1.0 fl oz/1000 ft row, and for crops with 30 fl oz/acre maximums is 1.26 fl oz/1000 ft row.

[c] In 30 inch rows, the highest rate for crops with 24 fl oz/acre maximums is 1.38 fl oz/1000 ft row.

[d] In 32 inch rows, the highest rate for crops with 24 fl oz/acre maximums is 1.47 fl oz/1000 ft row.

[e] In 34 inch rows, the highest rate for crops with 24 fl oz/acre maximums is 1.56 fl oz/1000 ft row.

Soilborne/Seedling Disease Control for Tomatoes, Bulb Onions, Peanuts, and Legume Vegetables

Vertisan can provide suppression or control of soilborne diseases when applied early in the growing season using specific application methods like pre-plant incorporation prior to planting, or in-furrow, banded, or drip applications. A single early season application of Vertisan can be made to the soil by one of the following methods.

Banded application:

Apply Vertisan prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the targeted foliage and surrounding soil surface. Band width should be limited to 6-8 inches or less. Refer to the Soil Application Rates table.

In-furrow application:
Apply Vertisan as an in-furrow spray in 3-15 gallons of water at planting. Adjust the spray pattern so the spray is directed into the furrow on the seed and surrounding soil. The spray pattern should be a 4- to 8-inch band that is applied to the seed just prior to being covered with soil. Refer to the Soil Application Rates table.

Pre-plant incorporation:

Apply Vertisan to the soil in a band or broadcast spray. Incorporate the Vertisan to a depth of 1-2 inches using a rototiller, cultivator, rotary hoe, irrigation, or similar methodology. Refer to the Soil Application Rates table.

Transplant water application:

Transplants should be adequately watered before transplanting. Ensure transplant water volume is sufficient to thoroughly wet the root zone.

Use 3-5 fl oz of transplant water per plant. Determine the total water gallonage per acre based on the plant population per acre and the fl oz transplant water/plant (3-5 fl oz). Mix the per acre rate of Vertisan into the partially filled tank, then completely fill the tank. Continue tank agitation through the transplanting process.

Example: 8712 plants/acre x 4 fl oz/ plant = 34,848 fl oz/ acre x 1 gallon/ 128 fl oz = 272.3 gallons/acre total transplant water.

Drip application:

Vertisan must be applied in a manner that ensures the product is in the root zone to provide effective control of target pests. Vertisan is most effective when it is applied so that the roots are at or near the site of application. Refer to the Soil Application Rates table.

Manage irrigation so that significant quantities of Vertisan remain in the root zone.

1. Do not begin applications until after crop emergence in direct seeded crops.
2. Do not make applications if soil moisture is below the level required for active plant growth.
3. This product must be applied uniformly in the root zone or poor performance may result. Drip tape or emitters must be located within or directly adjacent to the root zone.
4. The drip system must be properly designed, free of leaks, and operated in a manner that provides uniform application of water throughout the field.

Soil Application Rates for Tomatoes, Bulb Onions, Peanuts*, and Legumes*

Rate per 1000 row	**Product per Acre (fl oz)[a]**						
fl oz prod/ 1000 ft row	22” rows	30” rows	32” rows	34” rows	36” rows	38” rows	40” rows
1.2	28.6[b]	20.9	19.6	18.5	17.4	16.5	15.7
1.6	-	27.9[c]	26.1[d]	24.6[e]	23.0	22.0	21.1

[a] Consult the maximum rate per acre allowed for the crop, and do not exceed that rate when using this application method.
[b] In 22 inch rows, the highest rate for crops with 24 fl oz/acre maximums is 1.0 fl oz/1000 ft row, and for crops with 30 fl oz/acre maximums is 1.26 fl oz/1000 ft row.
[c] In 30 inch rows, the highest rate for tomatoes and bulb onions with 24 fl oz/acre maximum is 1.38 fl oz/1000 ft row.
[d] In 32 inch rows, the highest rate for tomatoes and bulb onions with 24 fl oz/acre maximum is 1.47 fl oz/1000 ft row.
[e] In 34 inch rows, the highest rate for tomatoes and bulb onions with 24 fl oz/acre maximum is 1.56 fl oz/1000 ft row.
[*Note to reviewer. We may or may not include asterisks and the following "*Not for use in California." on the printed label*.]

USE RATES AND APPLICATION INSTRUCTIONS

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Alfalfa	Powdery mildew* (*Erysiphe pisi, Leveillula taurica*) Stemphylium leafspot *(Stemphylium botryosum)*	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia crown and stem rot* (*Sclerotinia* spp.)	16 - 24 fl oz (0.18 – 0.31 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 14 days. Do not exceed 48 fl oz (0.63 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Banana*	Black sigatoka (*Mycosphaerella fijiensis*)	24 fl oz (0.31 lb ai/A)	Begin applications prior to disease development and continue on a 10-day interval.
RESTRICTIONS: Make no more than 3 applications of Vertisan fungicide per year. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

[*Note to reviewer. We may or may not include an asterisks in the following "*Not for use in California." on the printed label*.]

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Berry, Low Growing (Crop Subgroup 13-07G) Including only: Strawberry (except Clancy, Jewel, and L'Amour varieties); bearberry; bilberry; cloudberry; cranberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these except as noted	Botrytis fruit rot, gray mold (*Botrytis cinerea*) Powdery mildew (*Sphaerotheca* spp.)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. **NOTE**. Not all matted row varieties have been tested and foliar reddening may occur in some varieties under certain environmental conditions. Tank mixtures and/or alternating applications of captan or thiram may cause speckling on the lower surface of strawberry leaves under certain environmental conditions. Discontinue applications with captan and/or thiram if signs of a crop response appear. In observed speckling situations, no impact to leaf growth, flowering, or fruiting were noted. Not all varieties have been tested. For control of gray mold where resistance to Group 7 fungicides is suspected, Vertisan should be tank mixed with a fungicide with a different mode-of-action that is effective for gray mold control.

Lowbush Blueberry*	Botrytis fruit rot, gray mold (*Botrytis cinerea*) Brown leaf spot (*Septoria* spp.) Leaf rust (*Thekospora minima*) Powdery Mildew (*Microsphaera vaccinii*) Mummy berry (*Monilinia vaccinii-corymbosi*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. For control of gray mold where resistance to Group 7 fungicides is suspected, Vertisan should be tank mixed with a fungicide with a different mode-of-action that is effective for gray mold control.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

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Crop/Crop Group	**Target Diseases**	**Use Rate per Acre (fl oz)**	**Application Instructions**
Brassica Head and Stem Vegetable (Crop Group 5-16) Broccoli; Brussels sprouts; cabbage; cabbage, Chinese, napa; cauliflower; cultivars, varieties, and/or hybrids of these Kohlrabi	Alternaria, black spot, leaf spot (*Alternaria* spp.) Gray mold* (*Botrytis cinerea*) Pin rot (*Alternaria* spp.) Powdery mildew (*Erysiphe cruciferarum, Erysiphe polygoni*)	14 - 30 fl oz (0.18 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia stem rot *(Sclerotinia* spp.*)*	16 - 30 fl oz (0.21 – 0.39 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

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Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Bulb Vegetable (Crop Group 3-07) Including only: Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these	*Botrytis blight and neck rot (Botrytis* spp.*)* *Garlic rust (Puccinia allii)* *Powdery mildew* (Leveillula taurica, Oidiopsis* spp.*)* *Purple blotch (Alternaria porri)* *Stemphylium leaf blight and stem rot* (Stemphylium vesicarium)* *White rot (Sclerotium cepivorum)*	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
Bulb Onion	***Soil-borne Diseases*** *Rhizoctonia seedling blight/ rot (Rhizoctonia* spp.*)* *White Rot Sclerotium cepivorum*	1.2 - 1.6 fl oz/1000 row ft (0.016 – 0.021 lb ai/1000 row ft)	Make at-plant, pre-plant incorporated, in-furrow, transplant drench, or drip applications. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions. For White Rot control apply 16-24 fl oz/acre in a 4-6 inch band in furrow at planting.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 3 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year in total from any combination of soil and foliar treatments. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

**Not for use in California*

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Bushberry (Crop Subgroup 13-07B) Including only: Aronia berry; blueberry, highbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European, barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these except as noted	Botrytis gray mold *(Botrytis cinerea)* Phomopsis twig blight and canker *(Phomopsis vaccinii)*	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. Do not apply Vertisan on the highbush blueberry variety Star after bloom. Do not use an adjuvant with Vertisan after petal fall. For control of gray mold where resistance to Group 7 fungicides is suspected, Vertisan should be tank mixed with a fungicide with a different mode-of-action that is effective for gray mold control.
	Mummy berry *(Monilinia vaccinii-corymbosi)*	24 fl oz (0.31 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Caneberry (Crop Subgroup 13-07A) Including only: Blackberry; loganberry; raspberry, red and black; wild raspberry; cultivars, varieties, and/or hybrids of these	Botrytis gray mold *(Botrytis cinerea)* Spur blight *(Didymella applanata)* Yellow rust *(Phragmidium rubi-idaei)* Late yellow rust *(Pucciniastrum americanum)*	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. For control of gray mold where resistance to Group 7 fungicides is suspected, Vertisan should be tank mixed with a fungicide with a different mode-of-action that is effective for gray mold control.

RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

Cereal grains* except rice, including: barley, millets, sorghums, wheat, corn
Use directions for specific cereal grains are provided below. Cereal grains may be used for grazing, forage, and/or hay within 0 days after the last application.

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Barley*	Scald (*Rhynchosporium secalis*) Spot blotch (*Cochliobolus sativus*)	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval, depending on the targeted disease. Use higher rate and shorter interval when disease pressure is high.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Do not apply after flowering (Feekes 10.5.1). Do not exceed 48 fl oz/acre (0.63 lb ai) per year.			
Millet, pearl* millet, proso* Sorghum (milo)* sorghum spp. (sudangrass and hybrids)*	Rust, common (*Puccinia sorghi*)	10 - 24 fl oz (0.13 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and grain and stover harvest is 30 days. Do not exceed 48 fl oz (0.63 lb ai)/acre per year.			

*Not for use in California

Cereal grains* except rice, including: barley, millets, sorghums, wheat, corn
Use directions for specific cereal grains are provided below. Cereal grains may be used for grazing, forage, and/or hay within 0 days after the last application.

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Wheat*; rye*; oats*; buckwheat*; teosinte*; triticale*	Leaf and glume blotch (*Stagonospora* spp., *Septoria* spp.) Rust, brown leaf (*Puccinia recondita f. sp. Tritici*) Rust, black stem (*Puccinia graminis f. sp. Tritici*) Rust, stripe (*Puccinia striiformis*)	10 - 24 fl oz (0.13 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval, depending on the targeted disease. Use higher rate and shorter interval when disease pressure is high. To optimize yields in cereals, it is important to protect the flag leaf from foliar diseases. For optimizing yield and flag leaf disease control, apply Vertisan fungicide at Feekes 9, 'flag leaf out.'
	Tan spot (*Pyrenophora tritici-repentis*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	
	Disease suppression Powdery mildew (*Erysiphe graminis f. sp. Tritici*) Scab (*Fusarium* spp.)	10 - 24 fl oz (0.13 – 0.31 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Do not apply after flowering (Feekes 10.5.1). Do not exceed 48 fl oz (0.63 lb ai)/acre per year.			

*Not registered for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Corn, field* corn, sweet* corn, seed* popcorn*	Anthracnose leaf blight (*Colletotrichum graminicola*) Gray leaf spot (*Cercospora zeae-maydis*) Leaf spots (*Alternaria* spp.) Northern corn leaf blight (*Exserohilum turcicum*) Northern corn leaf spot (*Bipolaris zeicola*) Rusts (*Puccinia* spp.) Southern corn leaf blight (*Bipolaris maydis*)	10 - 24 fl oz (0.13 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Physoderma brown spot (*Physoderma maydis*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and grain and stover harvest is 7 days for corn. Corn may be used for grazing or forage within 0 days after the last application. Do not exceed 48 fl oz (0.63 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Cucurbit Vegetable (Crop Group 9) Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber (field and greenhouse); gherkin (field and greenhouse); gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe – other examples in footnote (1)); pumpkin; squash, summer (field and greenhouse); squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon	Alternaria leaf spot and blight* (*Alternaria* spp.) Gray mold* (*Botrytis cinerea*) Gummy stem blight* (*Didymella bryoniae*) Powdery mildew (*Sphaerotheca fuliginea) Erysiphe cichoracearum*)	12 - 16 fl oz (0.16 – 0.21 lb ai/A)	Begin applications prior to disease development and continue on a 5- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. For disease control in greenhouse cucurbits, use Vertisan at a rate range of 0.375 – 0.5 fl oz of product (0.75 – 1 tablespoon) per gallon of spray per 1360 sq ft. These rates equal field rates of 12-16 fl oz/acre. For control of Gummy stem blight where Group 7 fungicide resistance is suspected, tank mix Vertisan with a minimum of 1.5 lb active chlorothalonil/acre.
	Sclerotinia stem rot* (*Sclerotinia sclerotiorum*)	16 fl oz (0.21 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 1 day. Do not exceed 67 fl oz (0.87 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

(1) Muskmelon: includes true cantaloupe, cantaloupe, casaba, Santa Claus melon, crenshaw melon, honeydew melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon, snake melon, and other varieties and/or hybrids of these.

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Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Fruiting Vegetable (Crop Group 8-10) African eggplant; bush tomato; bell pepper (field and greenhouse); cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; nonbell pepper (field and greenhouse); roselle; scarlet eggplant; sunberry; tomatillo; tomato (field and greenhouse); tree tomato	Alternaria blights and leaf spots (*Alternaria* spp.) Black mold (*Alternaria alternata*) Early blight (*Alternaria solani*) Gray mold* (*Botrytis cinerea*) Powdery mildew (*Leveillula taurica*) Basal Stem Rot *(Sclerotium rolfsii)* Septoria leaf spot* (*Septoria* spp.) Target spot (*Corynespora cassiicola*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. For disease control in greenhouse peppers and tomatoes, use Vertisan at a rate range of 0.5 – 0.75 fl oz of product (1 – 1.5 tablespoons) per gallon of spray per 1360 sq ft. These rates equal field rates of 16-24 fl oz/acre. Basal Stem Rot: apply initial application as a directed spray to the base of the tomato plant, 5-10 days after transplanting. Follow with a second application 14 days later. Continue applications with an effective fungicide with a different mode of action.
	Disease suppression: Anthracnose (*Colletotrichum* spp.)	24 fl oz (0.31 lb ai/A)	
Tomatoes	**Soil-borne Diseases** Rhizoctonia seedling blight/rot (*Rhizoctonia* spp.) Southern blight (*Sclerotium rolfsii*)	1.0 - 1.6 fl oz/1000 row ft (0.013 – 0.021 lb ai/1000 row ft)	Make at-plant, pre-plant incorporated, in-furrow, transplant drench, or drip applications. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year in total from any combination of soil and foliar treatments. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Leaf Petiole Vegetable (Crop Subgroup 22B) Including only: Cardoon; celery; celery, Chinese; fuki; rhubarb; udo; zuiki; cultivars, varieties, and/or hybrids of these	Early Blight *(Cercospora apii)* Gray Mold* *(Botrytis cinerea)* Late Blight *(Septoria apicola)* Powdery Mildew *(Erysiphe heraclei)*	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 3 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Leafy greens (Crop Subgroup 4-16A) Including only: Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-namul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; huauzontle; jute, leaves; lettuce, bitter; lettuce, head; lettuce, leaf; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; cultivars, varieties, and/or hybrids of these	Alternaria leaf spot* (*Alternaria sonchi*) Cercospora leaf spot (*Cercospora* spp.) Gray mold* (*Botrytis cinerea*) Powdery mildew (*Erysiphe cichoracearum*) Rust* (*Puccinia* spp.) Septoria leaf spot* (*Septoria* spp.)	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Lettuce drop (*Sclerotinia minor, Sclerotinia sclerotiorum*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	
Celtuce Fennel, Florence			
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 3 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Brassica leafy greens (Crop Subgroup 4-16B) Including only: Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress†; cultivars, varieties, and/or hybrids of these	Alternaria, black spot, leaf spot (*Alternaria* spp.) Gray mold* (*Botrytis cinerea*) Pin rot (*Alternaria* spp.) Powdery mildew (*Erysiphe cruciferarum, Erysiphe polygoni*)	14 - 30 fl oz (0.18 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. †For applications made to watercress, production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application.
	Sclerotinia stem rot (*Sclerotinia* spp.)	16 - 30 fl oz (0.21 – 0.39 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

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Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Legume vegetables and foliage **(Crop Subgroup 6A edible podded)** Bean (Phaseolus spp.) includes runner bean, snap bean, wax bean; bean (Vigna spp.) includes asparagus bean, Chinese longbean, moth bean, yardlong bean; jackbean; pea (Pisum spp.) includes dwarf pea, edible-pod pea, snow pea, sugar snap pea; pigeon pea; soybean (immature seed); sword bean **(Crop Subgroup 6B succulent shelled)** Bean (Phaseolus spp.) includes lima bean (green); broad bean (succulent); bean (Vigna spp.) includes blackeyed pea, cowpea, southern pea; pea (Pisum spp.) includes English pea, garden pea, green pea; pigeon pea **(Subgroup 6C dried shelled beans and peas, except soybeans)** Dried cultivars of bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin, white sweet lupin); (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean); tepary bean; Bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea (garbanzo); guar; lablab bean; lentil; pea (*Pisum* spp.) (includes field pea); pigeon pea	Alternaria blight, leaf spot* (*Alternaria* spp.) Angular leaf spot* (*Phaeoisariopsis griseola*) Anthracnose* (*Colletotrichum lindemuthianum*) Ascochyta blight, leaf spot (*Ascochyta* spp.) Cercospora leaf spot* (*Cercospora* spp.) Gray mold* (*Botrytis cinerea*) Powdery mildew (*Erysiphe* spp.) Rust* (*Uromyces* spp., *Phakopsora* spp.) Septoria blotch* (*Septoria* spp.)	14 - 30 fl oz† (0.18 – 0.39 lb ai/A) for subgroups 6A and 6B: edible podded and succulent shelled beans and peas 14 - 20 fl oz (0.18 – 0.26 lb ai/A) for subgroup 6C: dried shelled beans and peas	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia rot, white mold (*Sclerotinia* spp.)	16 - 30 fl oz† (0.21 – 0.39 lb ai/A) for subgroups 6A and 6B: edible podded and succulent shelled beans and peas 16 - 20 fl oz (0.21 – 0.26 lb ai/A) for subgroup 6C: dried shelled beans and peas	Make initial preventive application at beginning bloom and follow with 2nd application 7-10 days later at full bloom.
	Soil-borne Diseases Damping off, seedling rot *(Rhizoctonia solani)*	1.2 - 1.6 fl oz/1000 row ft (0.016 – 0.021 lb ai/1000 row ft)	Make at plant, pre-plant incorporated, in-furrow, transplant drench, or drip applications. Maximum rate per acre per application is 30 fl oz for Crop Groups 6A and 6B, 20 fl oz for Crop Group C. See soil-borne disease section instructions.

RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action.

†Do not apply more than 20 fl oz per acre, or more than 41 fl oz per acre per year to lima bean, blackeyed pea, cowpea, moth bean, southern pea, and pigeon pea, if the crop will be subsequently dried.

For subgroups 6A and 6B: edible podded and succulent shelled beans and peas: Minimum time from application to harvest (PHI) is 0 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

For subgroup 6C: dried shelled beans and peas: Vines may be grazed or used for hay 0 days after application. Minimum time (PHI) between application and harvest of seed is 21 days. Do not exceed 41 fl oz (0.53 lb ai)/acre per year in total from any combination of soil and foliar treatments.

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Lettuce, greenhouse	Alternaria leaf spot* (*Alternaria sonchi*) Cercospora leaf spot (*Cercospora* spp.) Early blight (*Cercospora apii*) Gray mold* (*Botrytis cinerea*) Late blight (*Septoria apicola*) Powdery mildew (*Erysiphe cichoracearum*) Rust* (*Puccinia* spp.) Septoria leaf spot* (*Septoria* spp.)	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Lettuce drop *(Sclerotinia minor, Sclerotinia sclerotiorum)*	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 3 days. Do not make more than 3 applications per year at the high rate. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

Oil Seeds*, including: Canola, Cotton, and Sunflower

Use directions for specific crops are provided below.

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
***Canola varieties (rapeseed);** borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; sesame; sweet rocket; cultivars, varieties, and/or hybrids of these	Alternaria blackspot, (*Alternaria* spp.)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. Sclerotinia stem rot: Begin application at 20-50% bloom prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia stem rot, white mold (*Sclerotinia* spp.)	16 - 20 fl oz (0.21 – 0.26 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and harvest is 21 days. Do not exceed 41 fl oz (0.53 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
***Cotton;** cultivars, varieties, and/or hybrids of these	Boll Rot (*Diplodia, Fusarium*) Foliar disease complex Alternaria leaf and stem spots (*Alternaria* spp.) Cercospora leaf spot (*Cercospora* spp.) Stemphylium leaf spot (*Stemphylium* spp.) Hardlock (*Fusarium* spp.)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Soil-borne diseases Seedling and root rot (*Rhizoctonia solani*)	0.7 - 1.6 fl oz/1000 row ft (0.009 – 0.021 lb ai/1000 row ft)	At-plant, in-furrow application. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and harvest is 21 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

***Sunflower;** calendula; castor oil plant; Chinese tallowtree; euphorbia; evening primrose; jojoba; niger seed; rose hip; safflower; stokes aster; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these	Alternaria leaf spot (*Alternaria* spp.) Powdery mildew (*Erysiphe cichoracearum*) Rust (*Puccinia helianthi, Uromyces* spp.) Septoria leaf spot (*Septoria* spp.)	10 - 30 fl oz (0.13 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia stem rot (*Sclerotinia* spp.)	16 - 30 fl oz (0.21 – 0.39 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and harvest is 14 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Peanut*	Alternaria leaf spot (*Alternaria* spp.) Early leaf spot (*Cercospora arachidicola*) Late leaf spot (*Cercosporidium personatum*) Leaf scorch (*Leptosphaerulina crassiaca*) Pepper spot (*Leptosphaerulina crassiaca*) Rhizoctonia pod and stem blight, limb rot (*Rhizoctonia solani*) Rust (*Puccinia arachidis*) Southern stem rot, blight, white mold (*Sclerotium rolfsii*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 14- to 21-day interval. Use higher rate and shorter interval when disease pressure is high.
	Sclerotinia blight (*Sclerotinia* spp.) Web blotch (*Phoma arachidicola*)	16 - 24 fl oz (0.21 – 0.31 lb ai/A)	
	Disease suppression Cylindrocladium black rot (*Cylindrocladium crotalariae*)	16 - 24 fl oz (0.21 – 31 lb ai/A)	
	Soil-borne Diseases Damping off, seedling rot *(Rhizoctonia solani)*	1.2 - 1.6 fl oz/1000 row ft (0.016 – 0.021 lb ai/1000 row ft)	Make at plant, pre-plant incorporated, in-furrow, transplant drench, or drip applications. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.
RESTRICTIONS: Make no more than 3 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 14 days. Do not exceed 72 fl oz (0.94 lb ai)/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Pome Fruit (Crop Group 11-10) Including only: Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties and/or hybrids of these	Alternaria leaf spots* (*Alternaria* spp.) Scab, apple or pear (*Venturia inaequalis* (apple), *Venturia pirina* (pear)) Powdery mildew (*Podosphaera leucotricha*) Rusts* (*Gymnosporangium* spp.)	16 - 20 fl oz (0.21 – 0.26 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 21-day interval. Use higher rate and shorter interval when disease pressure is high. Application interval for scab is 7 to 10 days. For apple scab, a reliable disease forecasting system should be used. **NOTE**: Do NOT tank-mix Vertisan with thinning agents.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 28 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Root Vegetables and Leaves (Except Sugar Beet) (Crop Subgroup 1B and Crop Group 2) Beet, garden; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip	Alternaria leaf spot, blight and brown spot (*Alternaria* spp.) Cercospora leaf spot (*Cercospora* spp.) Cylindrocarpon root rot (*Cylindrocarpon destructans*) Gray mold* (*Botrytis cinerea*) Powdery mildew (*Erysiphe* spp.) Southern blight* (*Sclerotium rolfsii*) Rust* (*Uromyces* spp.) White mold* (*Sclerotinia* spp.)	16 - 30 fl oz (0.21 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Soybean*	Anthracnose (*Colletotrichum truncatum*) Alternaria leaf spot (*Alternaria* spp.) Brown Spot (*Septoria glycines*) Cercospora blight and leaf spot (*Cercospora kikuchii*) Frogeye leaf spot (*Cercospora sojina*) Pod and stem blight (*Diaporthe phaseolum)* Rust (*Puccinia* spp., *Phakospora* spp.) Target Spot (*Corynespora cassiicola*)	10 - 30 fl oz (0.13 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high. For white mold: make initial preventive application at 100% bloom (1 flower blooming on all plants) and follow with 2nd application 7-10 days later at full bloom.
	Sclerotinia stem rot (white mold) (*Sclerotinia sclerotiorum*)	16 - 30 fl oz (0.21 – 0.39 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Do not use soybean forage or hay for livestock feed. Minimum time (PHI) between application and harvest of seed is 14 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Stone Fruit (Crop Group 12-12) Including only: Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plumcot; plum, prune; sloe; cultivars, varieties, and/or hybrids of these	Alternaria rot* (*Alternaria* spp.) Botrytis rots (*Botrytis cinerea*) Brown rot blossom blight and fruit rot (*Monilinia* spp.) Green fruit rot* (*Sclerotinia sclerotiorum*) Powdery mildew (*Podosphaera clandestina, Sphaerotheca pannosa*) Rust (*Tranzschelia discolor*) Scab (*Cladosporium carpophilum*) Shot hole (*Wilsonomyces carpophilus*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Disease Suppression: Cherry leaf spot* (*Blumeriella jaapii*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 0 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Sugar beet*	Cercospora leaf spot (*Cercospora beticola*) Powdery mildew (*Erysiphe betae*) Rust (*Uromyces betae*)	14 - 30 fl oz (0.18 – 0.39 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Soil-borne diseases (*Rhizoctonia* spp.)	0.7 - 1.6 fl oz/1000 row ft (0.009 – 0.021 lb ai/1000 row ft)	At-plant, in-furrow application. Maximum rate per acre per application is 30 fl oz. See soil-borne disease section instructions.
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Sugar beet tops may be used for grazing or forage 0 days after the last application. Minimum time (PHI) between application and harvest is 7 days. Do not exceed 61 fl oz (0.80 lb ai) of Vertisan/acre per year. Do not use Vertisan fungicide for an in-furrow application when penthiopyrad has been applied as a seed treatment for sugar beets. Do not apply more than two in-season foliar sugar beet applications of Vertisan at the maximum single application rate when penthiopyrad has been used as a seed treatment for sugar beets. Do not apply more than 12.7 oz of penthiopyrad ai/acre/year to sugar beets in total from any combination of seed, soil, or foliar treatments.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Tree Nuts (Crop Group 14-12) Including only: African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; okari nut; pachira nut; peach palm nut; pecan; pequi; pili nut; pine nut; pistachio; sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these	Alternaria leaf spot, blight (*Alternaria* spp.) Anthracnose (*Colletotrichum* spp.) Brown rot blossom blight and fruit rot, green fruit rot (jacket rot) (*Monilinia* spp.) Botrytis rots, blights, green fruit rot (jacket rot) (*Botrytis cinerea*) Panicle and shoot blight (*Botryosphaeria dothidea*) Powdery mildew (*Podosphaera tridactyla* var. *tridactyla, Sphaerotheca pannosa, Phyllactinia angulata, Phyllactinia guttata* f. sp. *coryli*, *Microsphaera* spp., *Oidium* spp.) Rust (*Tranzschelia discolor, Uromyces* spp., *Pucciniastrum coryli*) Sclerotinia shoot blight, green fruit rot (jacket rot)* (*Sclerotinia sclerotiorum*) Seedling blight* (*Rhizoctonia solani*) Septoria leaf spot* (*Septoria* spp.) Shot-hole (*Wilsonomyces carpophilus*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Disease Suppression: Scab (*Cladosporium carpophilum*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 14 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

Crop/Crop Group	Target Diseases	Use Rate per Acre (fl oz)	Application Instructions
Tuberous and corm vegetables and leaves, including only: Potato; Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true	Alternaria early blight and brown spot (Alternaria solani, Alternaria alternata) Gray mold (Botrytis cinerea) Powdery mildew (Erysiphe spp.)	10 - 24 fl oz (0.13 – 0.31 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and shorter interval when disease pressure is high.
	Black dot (Colletotrichum coccodes)	14 - 24 fl oz (0.18 – 0.31 lb ai/A)	
	Disease suppression White mold (Sclerotinia sclerotiorum)	14 - 24 fl oz (0.18 -0.31 lb ai/A)	Make initial application at 100% full bloom of the primary inflorescence, or prior to row closure, and then again 14 days later.
	Soil-borne diseases Rhizoctonia stem canker and black scurf (*Rhizoctonia solani*)	0.7 – 1.6 fl oz/1000 row ft (0.009 – 0.021 lb ai/1000 row ft)	At-plant, in-furrow application. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.

RESTRICTIONS: Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and harvest is 7 days. Do not exceed 72 fl oz (0.94 lb ai) of Vertisan/acre per year. In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

Do not use Vertisan fungicide for an in-furrow application when penthiopyrad has been applied as a seed piece treatment for potatoes. Do not apply more than two in-season foliar potato applications of Vertisan at the maximum single application rate when penthiopyrad has been used as a seed piece treatment for potatoes. Do not apply more than 15 oz of penthiopyrad ai/acre/year to potatoes in total from any combination of seed, soil, or foliar treatments.

Specific Restrictions for Use in New York State
Make no more than 2 sequential applications of Vertisan before switching to a fungicide with a different mode of action. Minimum time (PHI) between application and harvest is 7 days. Do not exceed 61 fl oz (0.80 lb ai) of Vertisan/acre per year.

Do not use Vertisan fungicide for an in-furrow application when penthiopyrad has been applied as a seed piece treatment for potatoes. Do not apply more than one in-season foliar potato application of Vertisan at the maximum single application rate when penthiopyrad has been used as a seed piece treatment for potatoes. Do not apply more than 10 oz of penthiopyrad ai/acre/year to potatoes in total from any combination of seed, soil, or foliar treatments.

Vertisan Application Rate Conversion Table	
Single Application	
Vertisan Product (Fl Oz)	**Penthiopyrad AI (Lb)**
10	0.13
14	0.18
16	0.21
20	0.26
24	0.31
30	0.39
Annual Maximum	
Vertisan Product (Fl Oz)	**Penthiopyrad AI (Lb)**
41	0.53
48	0.63
61	0.80
72*	0.94*

*In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

Chemigation

Apply Vertisan fungicide only through sprinkler irrigation systems (such as center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems). Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, contact your State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Application Instructions

Specific Instructions for Public Water Systems:

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Specific Instructions for Sprinkler Irrigation Systems:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Good agitation is required in the injection tank.
8. In moving systems, apply specified dosage of Vertisan fungicide as a continuous injection. In nonmoving systems inject Vertisan for 15 to 30 minutes at end of cycle. Use the least amount of water possible consistent with uniform coverage.
9. Mix the amount of Vertisan needed for acreage to be treated into the quantity of water determined during prior calibration. For moving systems inject into the system continuously for one complete revolution of the field. For nonmoving systems inject into system for the time established during calibration.
10. Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all Vertisan is flushed from system.

SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD’s and lower drift potential.

CONTROLLING DROPLET SIZE - GROUND APPLICATION

- **Nozzle Type** - Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- **Pressure** - The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.
- **Flow Rate/Orifice Size** - Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

CONTROLLING DROPLET SIZE – AIRCRAFT

- **Nozzle Type** - Solid stream, or other low drift nozzles produce the coarsest droplet spectra.
- **Number of Nozzles** - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.
- **Nozzle Orientation** - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the airstream will produce a coarser droplet spectrum than other orientations.
- **Pressure** – Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet spectra and increase drift potential.

BOOM LENGTH (AIRCRAFT), AND APPLICATION HEIGHT

- **Boom Length (aircraft)** - Using shorter booms decreases drift potential. Boom lengths are expressed as a percentage of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and proper positioning can minimize drift caused by wingtip or rotor vortices.
- **Application Height (aircraft)** - Applications made at the lowest height that are consistent with pest control objectives and the safe operation of the aircraft will reduce the potential for spray drift.
- **Application Height (ground)** - Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind, and reduce spray drift potential.

WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS. Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause small, suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. Smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are minimizing drift potential, and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

SENSITIVE AREAS

Apply pesticide when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Council of Producers and Distributors of Agrotechnology.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions for use, subject to the inherent risks set forth below. To the extent consistent with applicable law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application or other factors, all of which are beyond the control of Corteva Agriscience or the seller. To the extent consistent with applicable law, Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent consistent with applicable law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

Limitation of Remedies

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent consistent with applicable law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent consistent with applicable law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

EPA accepted __/__/__

(Base label)

PENTHIOPYRAD	GROUP	7	FUNGICIDE

Vertisan®

[Alternate Brand Name: DuPont™ Vertisan®]

FUNGICIDE

Emulsifiable Concentrate

Active Ingredient	***By Weight***
Penthiopyrad	20.6%
Other Ingredients	79.4%
TOTAL	100.0%

Contains 1.67 pounds of penthiopyrad per gallon of product.

Keep Out of Reach of Children

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

First Aid

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.

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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May be harmful if swallowed. 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. Wear protective eyewear*, long-sleeved shirt and long pants, socks and shoes.

*Protective eyewear is mandatory.

Personal Protective Equipment (PPE)

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

- Long-sleeved shirt
- Long pants

- Shoes and socks- Protective eyewear (goggles, face shield, or safety glasses)

See engineering control statements for additional 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.

Engineering Control Statements

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.

User Safety Recommendations

User should:

- 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.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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, aquatic invertebrates, and oysters. For terrestrial uses: Do not apply directly to water, or 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Surface Water Advisory: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

STORAGE AND DISPOSAL

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

STORAGE: Keep container closed when not in use. Always store pesticides in the original container only, away from other pesticides, food, pet food, feed, seed, fertilizers, and veterinary supplies. If a leaky container must be contained within another, mark the outer container to identify the contents. Storage areas must be locked and secure from vandalism, with precautionary signs posted. The storage area must be dry, well-lit, and well-ventilated. Keep pesticide storage areas clean. Clean up any spills promptly. Protect pesticide containers from extreme heat and cold. Store herbicides, insecticides and fungicides in separate areas within the storage unit. Place liquid formulations on lower shelves and dry formulations above. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies. If spill cleanup PPE is stored nearby, but outside the pesticide storage area, it will be accessible when needed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Rigid Plastic Containers Less Than 5 Gallons): Nonrefillable 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Nonrefillable Rigid Plastic Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with Vertisan fungicide containing penthiopyrad only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use container, contact Corteva Agriscience at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact Corteva Agriscience at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact Corteva Agriscience at 1-800-992-5994, day or night.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use before applying.

Refer to inside of label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 352-836 EPA Est. No. _____

Produced for
Corteva Agriscience LLC
9330 Zionsville Road
Indianapolis, IN 46268

NET CONTENT___

Supplemental Labeling

Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268-1054 USA

Vertisan®

FUNGICIDE

EPA Reg. No. 352-836

This supplemental label expires on April 30, 2027, and must not be used or distributed after this date.

FOR USE IN TREE NUTS (CROP GROUP 14-12)

ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in possession of the user at the time of application.
- Read the label affixed to the container for Vertisan® before applying.
- Use of Vertisan according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Vertisan.

Product Information

Vertisan is a broad-spectrum fungicide, recommended for control of foliar and soil-borne plant diseases and has preventive, curative, and locally systemic activity. Vertisan must be applied in a regularly scheduled protective spray program in rotation with other fungicides. See directions below for specific crop/disease recommendations.

Vertisan can be applied with commonly used ground equipment, hose-end, or pressurized sprayers, and air or chemigation equipment, except as otherwise directed, using sufficient water to obtain thorough coverage of plants. Thorough coverage of all foliage is essential for effective disease control. Maintain agitation during mixing and application to assure uniform product suspension.

Use Restrictions

- Use this product only in commercial and farm plantings.
- Do not use for home plantings.
- Do not formulate this product into other end-use products.
- In New York, do not sell, sell into, distribute, or use in Nassau or Suffolk Counties.
- In New York, do not exceed 61 fl oz (0.80 lb ai) per acre per year.

Vertisan fungicide labeled Crop and Crop Groups, Pre-Harvest Intervals, Maximum Single Application Rates, and Total Rates allowed per year

Crop, Crop Group or Subgroup with examples†	Minimum Time from Application to Harvest (PHI days or crop stage)	Maximum Rate per Acre per Application fl oz product (lb active ingredient)	Maximum Product per Acre per Year fl oz product (lb active ingredient)
Tree nuts (group 14-12) almond, filbert, pistachio, walnut	14 days	20 fl oz (0.26 lb)	61 fl oz (0.80 lb)

† Refer to the crop specific direction for use tables to determine exactly which crop species in each crop area or crop group are included.

Use Rates and Application Instructions

Tree Nuts (Crop Group 14-12) Including only: African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; okari nut; pachira nut; peach palm nut; pecan; pequi; pili nut; pine nut; pistachio; sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these	Alternaria leaf spot, blight (*Alternaria* spp.) Anthracnose (*Colletotrichum* spp.) Brown rot blossom blight and fruit rot, green fruit rot (jacket rot) (*Monilinia* spp.) Botrytis rots, blights, green fruit rot (jacket rot) (*Botrytis cinerea*) Panicle and shoot blight (*Botryosphaeria dothidea*) Powdery mildew (*Podosphaera tridactyla* var. *tridactyla, Sphaerotheca pannosa, Phyllactinia angulata, Phyllactinia guttata* f. sp. *coryli*, *Microsphaera* spp., *Oidium* spp.) Rust (*Tranzschelia discolor, Uromyces* spp., *Pucciniastrum coryli*) Sclerotinia shoot blight, green fruit rot (jacket rot)* (*Sclerotinia sclerotiorum*) Seedling blight* (*Rhizoctonia solani*) Septoria leaf spot* (*Septoria* spp.) Shot-hole (*Wilsonomyces carpophilus*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use higher rate and

			shorter interval when disease pressure is high.
	Disease Suppression: Scab (*Cladosporium carpophilum*)	14 - 20 fl oz (0.18 – 0.26 lb ai/A)	
RESTRICTIONS: Make no more than 2 sequential applications of Vertisan fungicide before switching to a fungicide with a different mode of action. Minimum time from application to harvest (PHI) is 14 days. Do not exceed 61 fl oz (0.80 lb ai)/acre per year.			

*Not for use in California

R615-009
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Initial printing