

DuPont™ Vertisan™

FUNGICIDE



STATE OF HAWAII
Department of Agriculture

ACCEPTED

LICENSE NO.



Emulsifiable Concentrate

Active Ingredient

Penthiopyrad

Other Ingredients

9200.210

By Weight

20.6%

79.4%

TOTAL 100.0%

Contains 1.67 pounds of penthiopyrad per gallon of product

EPA Reg. No. 352-836

EPA Est. No. 352-GA-002

KEEP OUT OF REACH OF CHILDREN WARNING AVISO

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 to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **For medical emergencies involving this product, call toll-free 1-800-441-3637.** See Label for Additional Precautions and Directions for Use.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). 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.

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

Users should wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should 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. 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.

See label for additional precautions and complete directions for use.

AGRICULTURAL USE REQUIREMENTS

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

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

E. I. du Pont de Nemours and Company, 1007 Market Street, Wilmington, DE 19898 U.S.A.

A01768448 (SL-1882A 012715 12-22-14)

Made in U.S.A.

Net: 2.5 gal
Nonrefillable Container

DIRECTIONS FOR USE

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. 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)

DuPont™ VERTISAN™ fungicide (i.e., VERTISAN™), an emulsifiable concentrate containing penthiopyrad, is recommended for use as a spray for the control of many important listed plant diseases.

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.
- Do not use VERTISAN™ fungicide for an early season in-furrow soil application when penthiopyrad has been applied as a seed treatment for sugar beets or as a seed piece treatment for potatoes. Do not apply more than two in-season foliar sugar beet or potato applications of VERTISAN™ when penthiopyrad has been used as a seed treatment for sugar beets or as a seed piece treatment for potatoes.
- Do not apply more than 11.25 ounces of penthiopyrad active ingredient/acre/year to sugar beets or potatoes in total from any combination of seed, soil, or foliar treatments.
- **Do not sell, sell into, distribute, or use in Nassau or Suffolk Counties, New York.**

PRODUCT INFORMATION

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, FIFRA 2(ee) Bulletins), 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.

DuPont™ 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.

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

DuPont 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

Repeated use of products for control of specific plant pathogens may lead to selection of resistant strains of fungi and result in a reduction of disease control. Penthiopyrad, the active ingredient in VERTISAN™, is one of EPA's Target Site of Action Group 7 fungicides (carboxamides). A disease management program that includes rotation and/or tank mixing with non-Group 7 fungicides is essential to reduce the risk of fungicide resistance development. If resistance to Group 7 fungicides is expected, then tank mix VERTISAN™ with an effective fungicide with different mode-of-action. For guidance on a particular crop and disease control situation, consult your state extension specialist for official state recommendations.

TANK MIXTURES

Always follow the tank mix instructions of the product label that is most restrictive.

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.

DuPont 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 DuPont representative or local agricultural authorities for more information concerning tank mixtures.

APPLICATION INFORMATION

Mixing Instructions

1. Fill clean spray tank 1/4 - 1/2 full of water.
2. While agitating, add the required amount of DuPont™ 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 may be planted immediately after harvest:

Alfalfa, Brassica (cole) leafy vegetables crop group, bulb vegetables crop group (onion, garlic), canola, cereal grains crop group (barley, oats, rye, sorghum, wheat; except rice), corn (all types), cotton, cucurbit vegetables crop group (cucumber, melons, squash), fruiting vegetables crop group (tomato, pepper), leafy vegetables crop group (lettuce, celery, spinach), legume vegetables crop subgroup 6A (edible podded), legume vegetables crop subgroup 6B (succulent shelled), legume vegetables crop subgroup 6C (dried shelled), low-growing berries crop subgroup (strawberries, lowbush blueberries), peanuts, pome fruits, root vegetables crop subgroup (carrot, radish, turnip), soybean, stone fruits, sugar beet, sunflower, tree nuts crop group (almond, filbert, pecan, pistachio), tuberous and corm vegetables and leaves crop subgroup (potato).

All other crops cannot be planted until 120 days after the last application of VERTISAN™.

Table 1. DuPont™ 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)	Maximum Product per Acre per Year (fl oz product)
Canola*	21 days	20 fl oz	41 fl oz
Cereal grains* Barley, Wheat, oats, rye	0 day forage and hay, Do not apply after flowering (10.5.1)	24 fl oz	48 fl oz
Cereal grains* Sorghum	0 day forage 30 days grain and stover	24 fl oz	48 fl oz
Corn*	0 day forage 7 days grain and stover	24 fl oz	48 fl oz
Cotton*	21 days	24 fl oz	72 fl oz
Legume vegetables* Bean, pea (subgroup 6C dried shelled, except soybean)	0 day vine and hay 21 days seed	20 fl oz	41 fl oz
Soybeans*	0 day forage and hay 14 days seed	30 fl oz	61 fl oz
Sugar beet*	7 days 0 day forage	30 fl oz	61 fl oz
Sunflower*	14 days	30 fl oz	61 fl oz
Potato, sweet potato, yam	7 days	24 fl oz	72 fl oz

* Not for use in California or New York.

Soilborne/Seedling Disease Control for Cotton, Sugar Beets, Potatoes, Sweet Potatoes and 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, Potatoes, Sweet Potatoes and Yams

Rate per 1000 row feet	Product per Acre (fl oz) ^a						
	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.

USE RATES AND APPLICATION INSTRUCTIONS

Crop/Crop Group	Disease Controlled or Suppressed	Rate fl oz/acre	Comments
Canola*	Alternaria blackspot, (<i>Alternaria</i> spp.)	14 to 20 fl oz	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 (<i>Sclerotinia</i> spp.)	16 to 20 fl oz	

Make no more than 2 sequential applications of DuPont™ 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/acre per year.

Cereal grains*

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.

Barley	Scald (<i>Rhynchosporium secalis</i>) Spot blotch (<i>Cochliobolus sativus</i>)	14 to 24 fl oz	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.
--------	--	----------------	---

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 per year.

Millet, pearl; millet, proso; Sorghum (milo); sorghum spp. (sudangrass and hybrids)	Rust, common (<i>Puccinia sorghi</i>)	10 to 24 fl oz	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.
---	---	----------------	--

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/acre per year.

* Not for use in California or New York.

(continued)

USE RATES AND APPLICATION INSTRUCTIONS *(continued)*

Crop/Crop Group	Disease Controlled or Suppressed	Rate fl oz/acre	Comments
Wheat, rye, oats, buckwheat, teosinte, triticale	Leaf and glume blotch (<i>Stagonospora</i> spp., <i>Septoria</i> spp.) Rust, brown leaf (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) Rust, black stem (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) Rust, stripe (<i>Puccinia striiformis</i>)	10 to 24 fl oz	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 DuPont™ VERTISAN™ fungicide at Feekes 9, 'flag leaf out.'
	Tan spot (<i>Pyrenophora tritici-repentis</i>)	16 to 24 fl oz	
	Disease suppression Powdery mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) Scab (<i>Fusarium</i> spp.)	10 to 24 fl oz	
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/acre per year.			

Corn, field* corn, sweet corn, seed popcorn	Anthracnose leaf blight (<i>Colletotrichum graminicola</i>) Gray leaf spot (<i>Cercospora zeae-maydis</i>) Leaf spots (<i>Alternaria</i> spp.) Northern corn leaf blight (<i>Exserohilum turcicum</i>) Northern corn leaf spot (<i>Bipolaris zeicola</i>) Rusts (<i>Puccinia</i> spp.) Southern corn leaf blight (<i>Bipolaris maydis</i>)	10 to 24 fl oz	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 (<i>Physoderma maydis</i>)	16 to 24 fl oz	

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/acre per year.

* Not for use in California or New York.

(continued)

USE RATES AND APPLICATION INSTRUCTIONS *(continued)*

Crop/Crop Group	Disease Controlled or Suppressed	Rate fl oz/acre	Comments
Cotton*	Boll Rot (<i>Diplodia</i> , <i>Fusarium</i>) Foliar disease complex Alternaria leaf and stem spots (<i>Alternaria</i> spp.) Cercospora leaf spot (<i>Cercospora</i> spp.) Stemphylium leaf spot (<i>Stemphylium</i> spp.) Hardlock (<i>Fusarium</i> spp.)	16 to 24 fl oz	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 (<i>Rhizoctonia solani</i>)	0.7 to 1.6 fl oz/1000 row-ft	At-plant, in-furrow application. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.
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/acre per year.			

Legume vegetables* Subgroup 6C dried shelled beans and peas, except soybeans Dried cultivars of bean (<i>Lupinus</i> spp) (includes grain lupin, sweet lupin, white lupin, white sweet lupin); (<i>Phaseolus</i> spp) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean); tepary bean; Bean (<i>Vigna</i> 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 (<i>Pisum</i> spp) (includes field pea); pigeon pea	Alternaria blight, leaf spot (<i>Alternaria</i> spp.) Angular leaf spot (<i>Phaeoisariopsis griseola</i>) Anthracnose (<i>Colletotrichum lindemuthianum</i>) Ascochyta blight, leaf spot (<i>Ascochyta</i> spp.) Cercospora leaf spot (<i>Cercospora</i> spp.) Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Uromyces</i> spp., <i>Phakopsora</i> spp) Septoria blotch (<i>Septoria</i> spp.)	14 to 20 fl oz	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 (<i>Sclerotinia</i> spp.)	16 to 20 fl oz	Make initial preventive application at beginning bloom and follow with 2nd application 7-10 days later at full bloom.

Make no more than 2 sequential applications of DuPont™ VERTISAN™ fungicide before switching to a fungicide with a different mode of action. 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/acre per year.

* Not for use in California or New York.

(continued)

USE RATES AND APPLICATION INSTRUCTIONS *(continued)*

Crop/Crop Group	Disease Controlled or Suppressed	Rate fl oz/acre	Comments
Soybean*	Anthraxnose (<i>Colletotrichum truncatum</i>) Alternaria leaf spot (<i>Alternaria</i> spp.) Brown Spot (<i>Septoria glycines</i>) Cercospora blight and leaf spot (<i>Cercospora kikuchii</i>) Frogeye leaf spot (<i>Cercospora sojina</i>) Pod and stem blight (<i>Diaporthe phaseolum</i>) Rust (<i>Puccinia</i> spp., <i>Phakospora</i> spp) Target Spot (<i>Corynespora cassiicola</i>)	10 to 30 fl oz	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) (<i>Sclerotinia sclerotiorum</i>)	16 to 30 fl oz	

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/acre per year.

Sugar beet*	Cercospora leaf spot (<i>Cercospora beticola</i>) Powdery mildew (<i>Erysiphe betae</i>) Rust (<i>Uromyces betae</i>)	14 to 30 fl oz	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 (<i>Rhizoctonia</i> spp.)	0.7 to 1.6 fl oz/1000 row-ft	At-plant, in-furrow application. Maximum rate per acre per application is 30 fl oz. See soil-borne disease section instructions.

Make no more than 2 sequential applications of DuPont™ 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/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™ when penthiopyrad has been used as a seed treatment for sugar beets. Do not apply more than 11.25 ounces of penthiopyrad active ingredient/acre/year to sugar beets in total from any combination of seed, soil, or foliar treatments.

Sunflower*	Alternaria leaf spot (<i>Alternaria</i> spp.) Powdery mildew (<i>Erysiphe cichoracearum</i>) Rust (<i>Puccinia helianthi</i> , <i>Uromyces</i> spp.) Septoria leaf spot (<i>Septoria</i> spp.)	10 to 30 fl oz	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 (<i>Sclerotinia</i> spp.)	16 to 30 fl oz	

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/acre per year.

* Not for use in California or New York.

(continued)

USE RATES AND APPLICATION INSTRUCTIONS *(continued)*

Crop/Crop Group	Disease Controlled or Suppressed	Rate fl oz/acre	Comments
Potato; sweet potato; yam, true	Alternaria early blight and brown spot (<i>Alternaria solani</i> , <i>Alternaria alternata</i>) Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe</i> spp.)	10 to 24 fl oz	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 (<i>Colletotrichum coccodes</i>)	14 to 24 fl oz	
	Disease suppression White mold (<i>Sclerotinia sclerotiorum</i>)	14 to 24 fl oz	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 (<i>Rhizoctonia solani</i>)	0.7 to 1.6 fl oz/1000 row-ft	At-plant, in-furrow application. Maximum rate per acre per application is 24 fl oz. See soil-borne disease section instructions.
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/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™ when penthiopyrad has been used as a seed piece treatment for potatoes. Do not apply more than 11.25 ounces of penthiopyrad active ingredient/acre/year to potatoes in total from any combination of seed, soil, or foliar treatments.			

* Not for use in California or New York.

Chemigation

Apply DuPont™ 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, you should contact 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.

Specific Instructions for Public Water Systems:

- 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.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- 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.
- 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:

- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.

- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 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.
- Good agitation is required in the injection tank.
- In moving systems, apply specified dosage of DuPont™ 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.
- 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.
- Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all VERTISAN™ is flushed from system.

SPRAY DRIFT MANAGEMENT

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

This pesticide should only be applied 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.

STORAGE AND DISPOSAL

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

PESTICIDE 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 and Metal Containers (Capacity Equal to or 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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 DuPont at 1-800-441-3637, day or night.

NOTICE TO BUYER--Purchase of this material does not confer any rights under patents of countries outside of the United States.

The DuPont Oval Logo, DuPont™ and VERTISAN™ are trademarks or registered trademarks of E. I. du Pont de Nemours and Company.

LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability before buying or using this Product. DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by DuPont. User assumes all risks associated with such non-directed use. If the Terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. **WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT [1-888-638-7668]

Internet address: www.cropprotection.dupont.com

© 2012-2015 E. I. du Pont de Nemours and Company, 1007 Market Street, Wilmington, DE 19898

All rights reserved.

DuPont™ Vertisan™

FUNGICIDE



OPEN HERE ▲

Emulsifiable Concentrate

Active Ingredient

Penthiopyrad 20.6%

Other Ingredients 79.4%

TOTAL 100.0%

Contains 1.67 pounds of penthiopyrad per gallon of product

EPA Reg. No. 352-836

EPA Est. No. 352-GA-002

KEEP OUT OF REACH OF CHILDREN WARNING AVISO

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 to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **For medical emergencies involving this product, call toll-free 1-800-441-3637.** See Label for Additional Precautions and Directions for Use.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). 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.

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

Users should wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should 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. 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.

See label for additional precautions and complete directions for use.

AGRICULTURAL USE REQUIREMENTS

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

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

E. I. du Pont de Nemours and Company, 1007 Market Street, Wilmington, DE 19898 U.S.A.

A01768448 (SL-1882A 012715 12-22-14)

Made in U.S.A.

Net: 2.5 gal
Nonrefillable Container