



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Teresa S Cox
Regulatory Product Manager
Syngenta Crop Protection, LLC
P O Box 18300
Greensboro, NC 27419-8300

OCT 12 2012

Subject Vangard® WG Fungicide
EPA Reg No 100-828
EPA Decision Number 447573 and 448807
Your supplement label submitted on March 10, 2011 and the revised master and
supplement labels submitted on October 4, 2012 for additional crops as noted below

Dear Mrs Cox

The labels referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), for use on Bushberry Subgroup 13-07B, Caneberry Subgroup 13-07A, Onion, Bulb, Subgroup 3-07A, Onion, Green, Subgroup 3-07B, Small Fruit Vine Climbing Subgroup 13-07F (except fuzzy kiwifruit), Dragon Fruit, Vegetable, leafy (except brassica) Subgroup 04A, Leaf Petiole Subgroup 04B, Fruiting Vegetable Group 8-10, Low Growing Berry Subgroup 13-07G (except cranberry) and Pome Fruit Group 11-10, as amended are acceptable

One copy of the labels stamped "Accepted" are enclosed for your records Please submit one copy of the final printed label before the product is released for shipment You must incorporate this supplemental into your master label within 18 months or at your next label printing, whichever comes first If you have any questions, please contact Marcel Howard by phone at 703-308-0034 or via email at Howard.Marcel@epa.gov

Sincerely,

Cynthia Giles-Parker
Acting Product Manager 20
Fungicide Branch
Registration Division

Enclosure Stamped master and supplemental labels "Accepted"

SUPPLEMENTAL LABELING

Syngenta Crop Protection, LLC
P O Box 18300
Greensboro, North Carolina 27419-8300

GROUP 9 FUNGICIDES

Vanguard® WG

Fungicide

This supplemental label expires on August 30, 2015 and must not be used or distributed after this date

Active Ingredient	
Cyprodinil 4-cyclopropyl-6-methyl-N-phenyl-pyrimidinamine*	75 0%
Other Ingredients	25 0%
Total	100 0%

*CAS No 121552-61-2

Vanguard WG is a water-dispersible granule

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg No 100-828

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

ACCEPTED

OCT 12 2012

Under the Federal Insecticide
Fungicide and Rodenticide Act
as amended for the pesticide
registered under
EPA Reg No

syngenta

100-828

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation Harmful if absorbed through skin Avoid contact with skin, eyes, or clothing Wash thoroughly with soap and water after handling and before eating drinking, chewing gum or using the toilet Remove and wash contaminated clothing before reuse

Personal Protective Equipment (PPE)

Handlers applying this product as a preplant dip to strawberry roots and crowns and workers packaging or preparing treated roots and crowns for shipment must wear

- Chemical-resistant apron made of any waterproof material
- Elbow-length chemical-resistant glove made of any waterproof material
- Chemical-resistant boots made of any waterproof material

All other applicators and other handlers must wear

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

In addition, mixers and loaders for aerial and groundboom applications must wear

- Filtering facepiece respirator (N95, R95, or P95) (e g , a dustmask)

DIRECTIONS FOR USE

Crop	Disease	Rate oz /Acre	Remarks
Berries Bushberry Subgroup 13-07B Aronia berry Black current Blueberry high and low bush Buffalo current Chilean guava Edible honeysuckle Elderberry European barberry Gooseberry Highbush cranberry Huckleberry Jostaberry Juneberry (Saskatoon berry) Lingonberry Native currant Red currant Salal Sea buckthorn Caneberry Subgroup 13 07A Blackberry Loganberry Red and Black Raspberry Wild raspberry And cultivars and/or hybrids of these	Mummy berry <i>(Monilinia vaccinicorymbosi)</i> Anthracnose <i>(Colletotrichum spp)</i> Alternaria fruit rot <i>(Alternaria tenuissima)</i> Botrytis fruit rot <i>(Botrytis cinerea)</i>	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7 to 10-day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Small fruit vine climbing Subgroup 13-07F (except fuzzy kiwifruit) Grapes Amur river grape Hardy kiwifruit Maypop Schisandra berry And cultivars and/or hybrids of these	Botrytis bunch rot <i>(Botrytis spp)</i>	Vangard WG alone	Begin applications of Vangard WG at early bloom. Make an additional application at berry touch, veraison, or preharvest, using at least a 7-day spray interval. Botrytis bunch rot is most effectively controlled by ground application, using sufficient water volume to provide thorough coverage. Thorough coverage of bunches is essential.
	Suppression Powdery mildew <i>(Uncinula necator)</i>	10	When used at 10 oz /A, Vangard WG will provide significant suppression (approximately 60% control) of powdery mildew.
		Vangard WG tank mixtures 5 - 10	Apply Vangard WG in tank mixture with the label rate of another fungicide registered on grapes for control of Botrytis bunch rot.
Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground.			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 30 oz /A of Vangard WG (1.4 lb a.i./A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Leafy Greens Subgroup 4A (except Brassica and Leaf Petioles Subgroup 4B) Amaranth Arugula Cardoon Celery Celery Chinese Celtuce Chervil Chrysanthemum edible Corn salad Cress Dandelion Dock Endive (escarole) Fennel Florence Lettuce head and leaf New Zealand spinach Orach Parsley Purslane Radicchio Rhubarb Spinach Spinach vine Swiss chard And cultivars and/or hybrids of these	Alternaria leaf spot (<i>Alternaria</i> spp) Gray mold (<i>Botrytis cinerea</i>) Suppression Powdery mildew (<i>Erysiphe cichoracearum</i>)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
			Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1 to 0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
<p>Bulb Vegetables Crop Group 3-07A and 3-07B</p> <p>Bulb Onion Chinese onion Dry bulb onion Daylily bulb Fritillaria bulb Garlic Great-headed garlic Lily bulb Pearl onion Potato onion Serpent garlic Shallot</p> <p>Green Onion Beltsville bunching onion Chinese chive fresh leaves Fresh chive leaves Fritillaria leaves Fresh onion Green onion Hosta elegans Kurrat Lady s leek Leek Macrostem onion Shallot fresh leaves Tree tops onion Welsh onion tops Wild leek Wild onion</p> <p>Onions grown for seed</p>	<p>Botrytis leaf blight or blast (<i>Botrytis</i> spp)</p> <p>Purple blotch (<i>Alternaria porri</i>)</p> <p>Suppression Neck rot (<i>Botrytis</i> spp)</p>	<p>5.5 - 10</p>	<p>Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10 day interval if conditions remain favorable for disease development</p> <p>For optimal effect on neck rot apply on a 7 day schedule at the 10 oz rate</p> <p>Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications</p>
<p>And cultivars and/or hybrids of these</p>	<p>Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1 to 0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy</p>		

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Berry, Low Growing Subgroup 13-07G (except Cranberry) Strawberry See additional crops below	Gray mold (<i>Botrytis cinerea</i>)	5.5 - 10	Begin application at or before bloom and continue on a 7- to 10-day interval
	Powdery mildew (<i>Sphaerotheca maculans</i>)		Resistance Management After 2 applications of Vangard WG alternate with another fungicide with a different mode of action for 2 applications
	Anthracnose (<i>Colletotrichum</i> spp)	2.5-4 oz per 100 gals water	Apply as a preplant dip to strawberry roots and crowns at the rate of 2.5 to 4 oz per 100 gals of water for suppression of root and crown rot caused by anthracnose. Wash transplants to remove excess soil prior to dipping. This helps to remove adhering spores from the external plant parts. Completely immerse planting stock in dip solution. Dip or expose plants for a minimum of 2 to 5 minutes. DO NOT reuse solution. Dispose of dip solution according to local regulations. Plant treated plants as quickly as possible. For continued anthracnose control follow with foliar applications of beginning 2-3 weeks after transplant.
	Application Instructions Application may be made by ground air or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground or chemigation. For chemigation apply in 0.1 to 0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Additional Low Growing Berries Bearberry bilberry cloudberry muntries partridgeberry and cultivars and/or hybrids of these

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vangard WG (1.3 lb a /A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Fruiting Vegetable Crop Group 8-10 Eggplant Groundcherry Pepino Pepper (includes bell pepper chili pepper cooking pepper pimento sweet pepper) Tomatillo Tomatoes And cultivars and/or hybrids of these See additional crops below	Early Blight (<i>Alternaria solani</i>) Grey Mold (<i>Botrytis cinerea</i>) Powdery Mildew (<i>Leveillula taunca</i>)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7-10 day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications

Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy

Additional Fruiting Vegetables African eggplant bush tomato bell pepper cocona currant tomato eggplant garden huckleberry goji berry groundcherry martynia naranjilla okra pea eggplant pepino pepper bell pepper nonbell roselle scarlet eggplant sunberry tomatillos tomato tree tomato cultivars varieties and/or hybrids of these

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG per plot of land per year
- 3) Do not apply more than 1.3 lb a.i./A of cyprodinil containing products per plot of land per year
- 4) May be applied on the day of harvest (0-day PHI)
- 5) **Do not apply to small tomatoes such as cherry or grape type tomatoes in the greenhouse**

Crop	Disease	Rate oz /Acre	Remarks
Tropical Fruits Avocado Black sapote Canistel Dragon Fruit Lychee Longan Mamey sapote Mango Papaya Pulasan Rambutan Sapodilla Spanish lime Star apple	Botrytis fruit rot (<i>Botrytis</i> spp) Alternaria fruit rot (<i>Alternaria</i> spp) Anthracnose (<i>Colletotrichum</i> spp)	5 5 7	Make the first application during early bloom and repeat on 7- to 10 day intervals if conditions remain favorable for disease development Resistance Management After 2 applications of Vangard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vangard WG (1 3 lb a i /A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0 day PHI)

11/53

Crop	Disease	Rate oz /Acre	Remarks
Pome Fruits Apples Crabapples Loquat Mayhaw Pears (see tank mixture instructions) Quince And cultivars and/or hybrids of these See additional crops below	Prebloom	Vanguard WG alone 5	For pome fruits except pear begin application at green tip and continue on a 7- to 10 day interval Under severe disease pressure use the shorter interval
	Scab (<i>Venturia</i> spp)	Vanguard WG tank mixtures 3 5	For scab control utilizing multiple modes of action apply Vanguard WG in tank mixture with the label rate of a protectant or systemic fungicide registered on pome fruit Make applications on a 7- to 10-day interval
	Pink, bloom, post-bloom		
	Scab (<i>Venturia</i> spp)	Vanguard WG tank mixtures 3 5	Apply Vanguard WG in tank mix combination with the label rate of a protectant fungicide Use of the label rate of an EBDC fungicide will broaden the disease control spectrum to include cedar apple rust The addition of the label rate of sulfur or a sterol inhibitor (SI) fungicide to this tank mix will broaden the disease control spectrum to include powdery mildew
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Additional Pome Fruit Crops Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Pear Asian Quince Quince Chinese Quince Japanese Tejocote and cultivars varieties and/or hybrids of these

Specific Use Restrictions

- 1) When applying to pears apply Vanguard WG in tank mix only
- 2) Make no more than two applications by air
- 3) Do not apply more than 30 oz /A of Vanguard WG (1 4 lb a l /A of cyprodinil) per plot of land per year
- 4) Do not apply within 0 days of harvest (0 day PHI)

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[MASTER]

GROUP 9 FUNGICIDE

Vanguard® WG

Fungicide

Active Ingredient	
Cyprodinil 4-cyclopropyl-6-methyl-N-phenyl-pyrimidinamine*	75 0%
Other Ingredients	25 0%
Total	100 0%

*CAS No 121552-61-2

Vanguard WG is a water-dispersible granule

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet

EPA Reg 100-828

EPA Est

Net Weight

ACCEPTED

OCT 12 2012

Under the Federal Insecticide
Fungicide and Rodenticide Act
as amended for the pesticide
registered under
EPA Reg No

100-828

14/53

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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 eye • Call a poison control center or doctor for treatment advice
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing • Rinse skin immediately with plenty of water for 15-20 minutes • Call a poison control center or doctor for treatment advice
NOTE TO PHYSICIAN	
If ingested induce emesis or lavage stomach Treat symptomatically	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment	
HOT LINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak Fire, or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation Harmful if absorbed through skin Avoid contact with skin eyes, or clothing Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco or the toilet Remove and wash contaminated clothing before reuse

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart

Handlers applying this product as a pre-plant dip to strawberry roots and crowns and workers packaging or preparing treated roots and crowns for shipment must wear

- Chemical-resistant apron made of any waterproof material
- Elbow-length chemical-resistant gloves made of any waterproof material
- Chemical-resistant boots made of any waterproof material

All other applicators and other handlers must wear

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof materials such as polyethylene or polyvinyl chloride
- Shoes plus socks

In addition, mixers and loaders for aerial and groundboom applications must wear

- Filtering facepiece respirator (N95, R95, or P95) (e.g. a dustmask)

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 hands before eating, drinking, chewing gum, using tobacco, or using the toilet
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Surface and Ground Water Advisory

This chemical may contaminate water through runoff. 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 chemical has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this chemical. A level, well maintained vegetative buffer strip between areas to which this chemical is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of cyprodinil from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Physical or Chemical Hazards

Do not use, pour, spill or store near heat or open flame.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

PRODUCT INFORMATION

Vanguard WG is a broad spectrum fungicide which controls certain diseases in fruits, herbs, nuts and vegetables.

PRODUCT USE PRECAUTIONS

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

APPLICATION INFORMATION

Vanguard WG fungicide has preventative and systemic properties and is labeled for the control of many important plant diseases. Vanguard WG provides excellent disease control of Botrytis, several leaf spots and powdery mildews. Vanguard WG is applied as a foliar spray and can be used in block, alternating spray, or tank-mix programs with other crop protection products. Make all applications according to the use directions that follow.

PRODUCT USE INSTRUCTIONS

Application Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

Adjuvants When an adjuvant is to be used with this product, Syngenta recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Efficacy Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if the maximum amount of Vanguard WG has been used. If resistant isolates to Group 9 fungicides are present, efficacy can be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, with highly susceptible varieties, or when environmental conditions are conducive to disease.

Integrated Pest Management (IPM) Integrate Vanguard WG into an overall disease and pest management strategy whenever the use of a fungicide is required. Follow cultural practices known to reduce disease. Consult your local agricultural authorities for additional IPM strategies established for your area. Vanguard WG may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

RESISTANCE MANAGEMENT

GROUP	9	FUNGICIDE
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Vanguard WG contains the fungicide cyprodinil, an anilinopyrimidine in Group 9. A disease management program that includes alternation or tank mixes between Vanguard WG and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from developing resistance to Vanguard WG. Do not alternate or tank mix this product with fungicides to which resistance has already developed. Vanguard WG may be applied in an alternating or blocking program.

As part of a resistance management strategy

- Apply no more than 2 sequential applications unless otherwise stated in the crop section
- When tank mixing or alternating, use an effective partner – one that provides satisfactory disease control when used alone at the mixture rate

Crop Tolerance Plant tolerance has been found to be acceptable for all crops on the label; however, not all possible tank-mix combinations have been tested under all conditions. When possible, test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application.

Spray Drift Management To avoid spray drift, do not apply when conditions favor drift beyond the target area. The interaction of many equipment and weather-related factors determine the potential for spray drift. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER. More information on managing spray drift can be found on the SYNGENTA CROP PROTECTION website under Stewardship (http://www.syngentacropprotection-us.com/enviro/driftmanagement/index.asp?nav=drift_management)

Rotational Crop Restrictions

Do not plant any crop which is not registered for use with cyprodinil for a period of 30 days, unless a shorter interval is specified on the following list.

Rotation Crop	Planting Time From Last Vanguard WG Application
Beans (dried and succulent except cowpeas)* Berries (bushberries 13-07B, caneberries 13-07A)* Brassica (Cole) Leafy Vegetables* Cucurbits* Herbs (fresh and dried)* Leafy Vegetables* Leaves of Root and Tuber Vegetables* Onions (dry bulb, including garlic and green) Peppers Root Vegetables except Sugar beet* Strawberries Tomatoes and tomatillos Watercress Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	30 days

*See the complete crop lists for these groups in CROP USE DIRECTIONS - BERRIES FRUITS, HERBS AND VEGETABLES section later in this label

In annual crops where multiple crops can be grown per year (double/triple cropping), do not apply more than 1.3 lb a.i. per acre per year to an individual plot of land

APPLICATION AND MIXING PROCEDURES

Mixing

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Buffer the spray solution to a pH of 5.0-7.0 when tank mixed with Rovral® Fungicide.

Vanguard WG Alone Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the Vanguard WG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Vanguard WG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Vanguard WG + Tank Mixtures Add ½ of the required amount of water to the mix tank. Start the agitator running before adding any tank-mix partners. In general, add tank-mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Vanguard WG, liquid flowables, liquids and emulsifiable concentrates. Always allow each tank-mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

When using Vanguard WG in tank mixtures, add all products in water-soluble packaging to the tank before any other tank-mix partner, including Vanguard WG. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank-mix partner to the tank.

If using Vanguard WG in a tank mixture, observe all directions for use: crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed label dosage rates, and follow the most restrictive label precautions and limitations. Vanguard WG must not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

Additives Vanguard WG is compatible with most crop protection additives. Do not use X-77® with Vanguard WG for bloom sprays applied to stone fruits, almonds and pistachios.

Application

For best disease control, apply Vanguard WG in sufficient water to provide thorough and uniform coverage. Use minimum ground spray volumes of 50 gals /A for tree crops, 30 gals /A for vine crops, and 15 gals /A for field and vegetable crops. For aerial application, see spray volume requirements in the specific crop directions for use.

To prevent spray drift, do not apply when conditions favor drift beyond the target area. Spray overlap may cause crop injury.

For air assisted or air blast sprayers, move spray droplets into the canopy using a forced air stream. Set up the fan to deliver only enough air volume to penetrate the canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Check whirl plates and nozzle discs for wear and replace as necessary. Calibrate sprayer before use.

Use a pump with capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the spray mixture in suspension. Use a jet agitator, liquid sparge tube or mechanical paddle for agitation. Do not air sparge.

Use screens to prevent nozzles from clogging. Use 50-mesh or coarser screens placed after the tank and before the nozzles. Check nozzle manufacturer's recommendations.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural experiment station recommendations.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH PONDS

- Do not apply within 75 ft of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries
- Shut off the sprayer when row ends
- Do not cultivate within 10 ft of aquatic areas in order to allow a vegetative filter strip
- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when gusts or sustained winds exceed 10 mph
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas
- For perennial crops such as tree crops and grapes
 - For all plantings within 150 ft of bodies of water as described above, spray crops from outside the planting away from the bodies of water
 - Spray last three rows windward of aquatic areas using nozzles on one side only, with spray directed away from aquatic areas. Adjust or turn off top nozzles to prevent spray going over the tops of trees. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row or passing tree gaps in the rows

Aerial Spray Precautions

Avoid applications under conditions when uniform coverage cannot be obtained or when excessive drift may occur.

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds

- Use only on crops where aerial applications are indicated
- Do not apply by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds
- For aerial applications mount the spray boom on the aircraft so as to minimize the drift caused by wing tip vortices Use the minimum practical boom length which must not exceed 75% of wing span or rotor diameter
- Use the largest droplet size consistent with good pest control Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure
- Release spray at the lowest height consistent with pest control and flight safety Do not make applications more than 10 feet above the crop canopy
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area
- Do not apply when weather conditions favor drift to aquatic areas Do not apply when gusts or sustained winds exceed 10 mph
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic area Avoid spraying during conditions of low humidity and/or high temperatures
- Do not apply during a temperature inversion Mist or fog may indicate the presence of an inversion in humid areas

Application Through Irrigation Systems (Chemigation)

- Use only on crops for which chemigation is specified on this label
- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems Do not apply this product through any other type of irrigation system
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water
- Apply in 0.125-0.25 inches/A of water Excessive water may reduce efficacy
- 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

Note Do not inject Vangard WG at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part Vangard WG. Vangard WG is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used but should be replaced once a year. Do not use Viton®, Buna-N, Neoprene, or PVC seals.

Operating Instructions

- 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 Do not apply when wind speed favors drift beyond the area intended

Center Pivot Irrigation Equipment

Notes (1) Use only with drive systems which provide uniform water distribution (2) Do not use end guns when chemigating Vanguard WG through center pivot systems because of non-uniform application

- Determine the size of the area to be treated
- Determine the time required to apply $\frac{1}{8}$ - $\frac{1}{2}$ inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer When applying Vanguard WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution Run the system at 80-95% of the manufacturer's rated capacity
- Using water determine the injection pump output when operated at normal line pressure
- Determine the amount of Vanguard WG required to treat the area covered by the irrigation system
- Add the required amount of Vanguard WG and sufficient water to meet the injection time requirements to the solution tank
- Make sure the system is fully charged with water before starting injection of the Vanguard WG solution Time the injection to last at least as long as it takes to bring the system to full pressure
- Maintain constant solution tank agitation during the injection period
- Continue to operate the system until the Vanguard WG solution has cleared the sprinkler head

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval When applying Vanguard WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution
- Determine the amount of Vanguard WG required to treat the area covered by the irrigation system
- Add the required amount of Vanguard WG into the same quantity of water used to calibrate the injection period
- Operate the system at the same pressure and time interval established during the calibration
- Stop injection equipment after treatment is completed Continue to operate the system until the Vanguard WG solution has cleared the last sprinkler head

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, back-flow 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
- 7 Do not apply when wind speed favors drift beyond the area intended for treatment

CROP USE DIRECTIONS – TREES, NUTS AND VINES

Crop	Disease	Rate oz /Acre	Remarks
Almonds	Brown rot blossom blight (<i>Monilinia</i> spp)	5 - 10	Apply Vangard WG at 5-10% bloom Additional applications at 50-100% bloom and petal fall may be necessary
	Suppression Green fruit rot (Jacket rot) (<i>Botrytis cinerea</i>)		When used for control of brown rot blossom blight Vangard WG will provide suppression of shot hole
	Shot hole (<i>Wilsonomyces carpophilus</i>)		For broad spectrum disease control in tank mixture apply Vangard WG at a minimum rate of 5 oz in tank mixtures with other fungicides registered for use on almonds For suppression of green fruit rot apply Vangard WG at full bloom Disease suppression for almond diseases refers to erratic control from fair to good or consistent control at a level below that obtained with products registered for control
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 30 oz /A of Vangard WG (1.4 lb a /A of cyprodinil) per plot of land per year
- 3) Do not apply within 60 days of harvest (60-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Citrus Lemon Lime	Alternaria Stem End Rot (<i>A citri</i>) Anthracnose (<i>Colletotrichum gloeosporioides</i>) Blue Mold (<i>Penicillium italicum</i>) Green Mold (<i>Penicillium digitatum</i>)	5.5 - 7	Make one application near harvest to prevent post harvest fruit rot. The application may be made up to and including the day of harvest.
Application Instructions: Make applications by ground. Good coverage is essential for good disease control.			

Specific Use Restrictions

- 1) Application may be made by ground only
- 2) Do not apply more than 7 oz /A of Vanguard WG per plot of land per year
- 3) Do not apply more than 0.33 lb a.i./A of cyprodinil containing products per plot of land per year
- 4) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
<p>Small fruit vine climbing Subgroup 13-07F (except fuzzy kiwifruit)</p> <p>Grapes Amur river grape Hardy kiwifruit Maypop Schisandra berry</p> <p>And cultivars and/or hybrids of these</p>	<p>Botrytis bunch rot (<i>Botrytis</i> spp)</p>	<p>Vangard WG alone</p>	<p>Begin applications of Vangard WG at early bloom. Make an additional application at berry touch, veraison or preharvest using at least a 7-day spray interval. Botrytis bunch rot is most effectively controlled by ground application using sufficient water volume to provide thorough coverage. Thorough coverage of bunches is essential.</p> <p>When used at 10 oz /A Vangard WG will provide significant suppression (approximately 60% control) of powdery mildew.</p>
	<p>Suppression Powdery mildew (<i>Uncinula necator</i>)</p>	<p>10</p>	<p>Apply Vangard WG in tank mixture with the label rate of another fungicide registered on grapes for control of Botrytis bunch rot.</p>
		<p>Vangard WG tank mixtures</p> <p>5 - 10</p>	<p>Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground.</p>

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 30 oz /A of Vangard WG (1.4 lb a.i./A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

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Crop	Disease	Rate oz /Acre	Remarks
Kiwi	Botrytis Fruit Rot (<i>Botrytis</i> spp)	10	Make 1-2 applications on a 7-10 day interval prior to harvest to prevent post harvest fruit rot
	Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground		

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 20 oz of Vanguard WG (0.94 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Pistachios	Botrytis (<i>Botrytis</i> spp)	5.5 - 7	Make the first application during early bloom and repeat applications at 14-day intervals if conditions remain favorable for disease development
	Alternaria (<i>Alternaria alternata</i>)		
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Pome Fruits Apples Crabapples Loquat Mayhaw Pears (see tank mixture instructions) Quince And cultivars and/or hybrids of these	Prebloom	Vangard WG alone	For pome fruits except pear begin application at green tip and continue on a 7- to 10-day interval Under severe disease pressure use the shorter interval
	Scab (<i>Ventura spp</i>)	5	
See additional crops below	Pink, bloom, post-bloom Scab (<i>Ventura spp</i>)	Vangard WG tank mixtures	For scab control utilizing multiple modes of action apply Vangard WG in tank mixture with the label rate of a protectant or systemic fungicide registered on pome fruit Make applications on a 7- to 10-day interval
		3 - 5	Apply Vangard WG in tank mix combination with the label rate of a protectant fungicide Use of the label rate of an EBDC fungicide will broaden the disease control spectrum to include cedar apple rust The addition of the label rate of sulfur or a sterol inhibitor (SI) fungicide to this tank mix will broaden the disease control spectrum to include powdery mildew
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Additional Pome Fruit Crops Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Pear Asian Quince Quince Chinese Quince Japanese Tejocote and cultivars varieties and/or hybrids of these

Specific Use Restrictions

- 1) When applying to pears apply Vangard WG in tank mix only
- 2) Make no more than two applications by air
- 3) Do not apply more than 30 oz /A of Vangard WG (1 4 lb a i /A of cyprodinil) per plot of land per year
- 4) Do not apply within 0 days of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Stone Fruits Apricots Tart cherries Nectarines Peaches Plums Prunes	Brown rot blossom blight (<i>Monilinia</i> spp)	5	Begin applications at bloom stage (apricots at red bud cherries at popcorn peaches and nectarines at pink bud plums and prunes at green tip) Make a second application at full bloom Use Vanguard WG alone or in tank mixture with the label rate of another fungicide registered for stone fruit
And cultivars and/or hybrids of these	California only Fruit brown rot (<i>Monilinia</i> spp)	Vanguard WG alone 10	Apply a maximum of 2 applications of Vanguard WG during the preharvest period up through 2 days prior to harvest as needed
		Vanguard WG tank mixtures 5	Apply Vanguard WG in tank mixture with the label rate of another fungicide registered on stone fruit for control of fruit brown rot
		Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground	

Specific Use Restrictions

- 1) Do not apply Vanguard WG to sweet cherries
- 2) Make no more than two applications by air
- 3) Do not apply more than 30 oz of Vanguard WG (1.4 lb a.i./A of cyprodinil) per plot of land per year
- 4) Do not apply within 2 days of harvest (2-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Tropical Fruits Avocado Black sapote Canistel Dragon Fruit Lychee Longan Mamey sapote Mango Papaya Pulasan Rambutan Sapodilla Spanish lime Star apple	Botrytis fruit rot (<i>Botrytis</i> spp) Alternaria fruit rot (<i>Alternaria</i> spp) Anthracnose (<i>Colletotrichum</i> spp)	5.5 - 7	Make the first application during early bloom and repeat on 7- to 10-day intervals if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 20 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

CROP USE DIRECTIONS – BERRIES, FRUITS, HERBS AND VEGETABLES

Crop	Disease	Rate oz /Acre	Remarks
<p>Beans (Dried and Succulent except cowpeas)</p> <p>Chickpea (garbanzo bean) Bean (<i>Lupinus</i> spp) (grain lupin sweet lupin white lupin white sweet lupin) Bean (<i>Phaseolus</i> spp) (kidney lima mung navy pinto snap wax) Broad Bean (fava bean) Bean (<i>Vigna</i> spp) (asparagus blackeyed pea)</p>	<p>Gray mold (<i>Botrytis cinerea</i>)</p>	<p>5.5 - 7</p>	<p>Begin applications prior to or at the onset of disease and repeat applications on a 7-day interval if conditions remain favorable for disease development</p> <p>Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications</p> <p>Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy</p>

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more 28 oz /A of Vanguard WG (1.3 lb a.i. /A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Berries Bushberry Subgroup 13-07B Aronia berry Black current Blueberry high and low bush Buffalo current Chilean guava Edible honeysuckle Elderberry European barberry Gooseberry Highbush cranberry Huckleberry Jostaberry Juneberry (Saskatoon berry) Lingonberry Native currant Red currant Salal Sea buckthorn	Mummy berry (<i>Monilinia vaccinicorymbosi</i>) Anthracnose (<i>Colletotrichum</i> spp) Alternaria fruit rot (<i>Alternaria tenuissima</i>) Botrytis fruit rot (<i>Botrytis cinerea</i>)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Caneberry Subgroup 13-07A Blackberry Loganberry Red and Black Raspberry Wild raspberry			
And cultivars and/or hybrids of these	Application Instructions Application may be made by ground or air Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground		

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Brassica (Cole) Leafy Vegetables Broccoli Brussels sprouts Cabbage Cabbage Chinese Cauliflower Collards Kale Mustard greens Turnip greens And cultivars and/or hybrids of these	Powdery mildew (<i>Erysiphe polygoni</i>)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy			

Additional Cole Vegetables Broccoli Chinese Broccoli raab Cavalo broccolo Kohlrabi
Mizuna Mustard spinach and Rape greens

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not use roots of treated turnips for food or feed Only turnip varieties harvested for their leaves may be treated
- 3) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 4) Do not apply within 7 days of harvest (7-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Cucurbits Cantaloupe Chayote Chinese waxgourd Cucumber Gourds Honeydew Momordica spp (Bitter melon Balsam apple) Muskmelon Watermelon Pumpkin Squash Zucchini	Alternaria Leaf Blight <i>(A cucumerina)</i> Alternaria Leaf Spot <i>(A alternate)</i> Gummy Stem Blight <i>(Didymella bryoniae)</i> Powdery Mildew <i>(Sphaerotheca fuliginea)</i> <i>Erysiphe cichoracearum)</i>	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7-10 day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
And cultivars and/or hybrids of these	Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy		

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG per plot of land per year
- 3) Do not apply more than 1.3 lb a.i./A of cyprodinil containing products per plot of land per year
- 4) May be applied up to 1 day before harvest (1-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Herbs (Dried and fresh) Basil Chive Coriander leaves (cilantro) Dillweed Lemongrass Parsley Rosemary Sage Tarragon Thyme See additional crops below	Alternaria leaf spot (<i>Alternaria</i> spp) Botrytis leaf blight (<i>Botrytis</i> spp)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy			

Additional Herbs (dried and fresh) Angelica Balm Borage Burnet Camomile Catnip Chervil (dried leaves) Clary Costmary Culantro (leaves) Curry (leaves) Horehound Hyssop Lavender Lovage (leaves) Marigold, Marjoram Nasturtium Pennyroyal Rue Savory (summer and winter) Sweet bay Tansy Wintergreen Woodruff and Wormwood

Specific Use Restrictions

- 1) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 2) Do not apply within 7 days of harvest (7-day PHI)

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Crop	Disease	Rate oz /Acre	Remarks
<p>Leafy Greens Subgroup 4A (except Brassica and Leaf Petioles Subgroup 4B)</p> <p>Amaranth Arugula Cardoon Celery Celery Chinese Celtuce Chervil Chrysanthemum edible Corn salad Cress Dandelion Dock Endive (escarole) Fennel Florence Lettuce head and leaf New Zealand spinach Orach Parsley Purslane Radicchio Rhubarb Spinach Spinach vine Swiss chard</p> <p>And cultivars and/or hybrids of these</p>	<p>Alternaria leaf spot (<i>Alternaria</i> spp)</p> <p>Gray mold (<i>Botrytis cinerea</i>)</p> <p>Suppression Powdery mildew (<i>Erysiphe cichoracearum</i>)</p>	<p>5 5 - 7</p>	<p>Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development</p> <p>Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications</p> <p>Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy</p>

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

Crop	Disease	Rate oz /Acre	Remarks
Bulb Vegetables Crop Group 3-07A and 3 07B	Botrytis leaf blight or blast (<i>Botrytis</i> spp)	5 5 - 10	Begin applications prior to or at the onset of disease and repeat applications on a 7- to10-day interval if conditions remain favorable for disease development
Bulb Onion Chinese onion Dry bulb onion Daylily bulb Fritillaria bulb Garlic Great-headed garlic Lily bulb Pearl onion Potato onion Serpent garlic Shallot	Purple blotch (<i>Alternaria porri</i>)		
	Suppression Neck rot (<i>Botrytis</i> spp)		For optimal effect on neck rot apply on a 7-day schedule at the 10 oz rate
Green Onion Beltsville bunching onion Chinese chive fresh leaves Fresh chive leaves Fritillaria leaves Fresh onion Green onion Hosta elegans Kurrat Lady s leek Leek Macrostem onion Shallot fresh leaves Tree tops onion Welsh onion tops Wild leek Wild onion			Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Onions grown for seed			Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0 1-0 25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy
And cultivars and/or hybrids of these			

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1 3 lb a l /A of cyprodinil) per plot of land per year
- 3) Do not apply within 7 days of harvest (7-day PHI)

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Crop	Disease	Rate oz /Acre	Remarks
Root Vegetables except Sugar beet	Alternaria Leaf Blight (<i>Alternaria dauci</i>)	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7-10 day interval if conditions remain favorable for disease development
Carrot Beet garden Ginseng Horseradish Parsnip Radish (oriental) Rutabaga Turnip	Powdery Mildew (<i>Erysiphe</i> spp)		Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
See additional crops below			
Radish			On radish make no more than two applications per crop
Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 5 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy			

Additional Root and Tuber Vegetables Burdock edible Celeriac Chicory Salsify (including black and Spanish) Skirret, Turnip-root parsley and Turnip rooted chervil

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Radish ONLY - do not apply more than 14 oz per crop or more than 28 oz /A of Vanguard WG per plot of land per year
- 3) Do not apply more than 28 oz /A of Vanguard WG per plot of land per year
- 4) Do not apply more than 1.3 lb a /A of cyprodinil containing products per plot of land per year
- 5) Do not apply within 7 days of harvest (7-day PHI)
- 6) Do not allow cattle or other livestock to feed upon the leaves of root vegetables

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Crop	Disease	Rate oz /Acre	Remarks
<p>Berry, Low Growing Subgroup 13-07G (except Cranberry)</p> <p>Strawberry</p> <p>See additional crops below</p>	<p>Gray mold (<i>Botrytis cinerea</i>)</p> <p>Powdery mildew (<i>Sphaerotheca macularis</i>)</p> <p>Anthracnose (<i>Colletotrichum</i> spp)</p>	<p>5.5 - 10</p>	<p>Begin application at or before bloom and continue on a 7- to 10-day interval</p> <p>Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications</p>
	<p>Root and crown anthracnose at planting (<i>Colletotrichum</i> spp)</p>	<p>2.5-4 oz per 100 gals water</p>	<p>Apply as a preplant dip to strawberry roots and crowns at the rate of 2.5 to 4 oz per 100 gals of water for suppression of root and crown rot caused by anthracnose. Wash transplants to remove excess soil prior to dipping. This helps to remove adhering spores from the external plant parts. Completely immerse planting stock in dip solution. Dip or expose plants for a minimum of 2 to 5 minutes. DO NOT reuse solution. Dispose of dip solution according to local regulations.</p> <p>Plant treated plants as quickly as possible. For continued anthracnose control follow with foliar applications of beginning 2-3 weeks after transplant.</p>
<p>Application Instructions Application may be made by ground air or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground or chemigation. For chemigation apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.</p>			

Additional Low Growing Berries Bearberry bilberry cloudberry muntries partridgeberry and cultivars and/or hybrids of these

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 3) May be applied on the day of harvest (0-day PHI)

46/53

Crop	Disease	Rate oz /Acre	Remarks
Fruiting Vegetable Crop Group 8-10 Eggplant Groundcherry Pepino Pepper (includes bell pepper chili pepper cooking pepper pimento sweet pepper) Tomatillo Tomatoes See additional crops below	Early Blight <i>(Alternaria solani)</i> Grey Mold <i>(Botrytis cinerea)</i> Powdery Mildew <i>(Leveillula taurica)</i>	5.5 - 7	Begin applications prior to or at the onset of disease and repeat applications on a 7-10 day interval if conditions remain favorable for disease development Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications
Application Instructions Application may be made by ground air or chemigation Good coverage is essential for good disease control Use a minimum of 10 gallons/A spray volume by air Make no more than two applications by air Make additional applications by ground or chemigation For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy			

Additional Fruiting Vegetables African eggplant bush tomato bell pepper cocona currant tomato eggplant garden huckleberry goji berry groundcherry martynia naranjilla okra pea eggplant pepino pepper bell pepper nonbell roselle scarlet eggplant sunberry tomatillos tomato tree tomato cultivars varieties and/or hybrids of these

Specific Use Restrictions

- 1) Make no more than two applications by air
- 2) Do not apply more than 28 oz /A of Vanguard WG per plot of land per year
- 3) Do not apply more than 1.3 lb a.i./A of cyprodinil containing products per plot of land per year
- 4) May be applied on the day of harvest (0-day PHI)
- 5) **Do not apply to small tomatoes such as cherry or grape type tomatoes in the greenhouse**

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Crop	Disease	Rate oz /Acre	Remarks
Watercress	Cercospora leaf spot (<i>Cercospora</i> spp)	5.5 - 7	<p>Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development</p> <p>Resistance Management After 2 applications of Vanguard WG alternate with another fungicide with a different mode of action for 2 applications</p>
<p>Application Instructions Application may be made by ground or chemigation Good coverage is essential for good disease control For chemigation apply in 0.1-0.25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy</p>			

Specific Use Restrictions

- 1) Do not apply more than 28 oz /A of Vanguard WG (1.3 lb a.i./A of cyprodinil) per plot of land per year
- 2) May be applied on the day of harvest (0-day PHI)

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry, secure place.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

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

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[BASE LABEL]

GROUP 9 FUNGICIDE

Vanguard® WG

Fungicide

Active Ingredient	
Cyprodinil 4-cyclopropyl-6-methyl-N-phenyl-pyrimidinamine*	75 0%
Other Ingredients	25 0%
Total	100 0%

*CAS No 121552-61-2

Vanguard WG is a water-dispersible granule

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet

AGRICULTURAL USE REQUIREMENTS

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

EPA Reg No 100-828

EPA Est 67545-AZ-1

Net Weight

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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 eye • Call a poison control center or doctor for treatment advice
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing • Rinse skin immediately with plenty of water for 15-20 minutes • Call a poison control center or doctor for treatment advice
NOTE TO PHYSICIAN	
If ingested, induce emesis or lavage stomach Treat symptomatically	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment	
HOT LINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372	

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes moderate eye irritation Harmful if absorbed through skin Avoid contact with skin eyes, or clothing Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco or the toilet Remove and wash contaminated clothing before reuse

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates 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 apply when weather conditions favor drift from treated areas Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas Do not contaminate water when disposing of equipment washwater or rinsate

Surface and Ground Water Advisory

This chemical may contaminate water through runoff 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 chemical has a potential for runoff for several months or more after application Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this chemical A level, well

maintained vegetative buffer strip between areas to which this chemical is applied and surface water features such as ponds streams, and springs will reduce the potential loading of cyprodinil from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry, secure place.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

Chemigation

Do not apply this product through any type of irrigation system.

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Manufactured for
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