

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 23, 2015

Dave G. Bolin, Ph.D. Regulatory Affairs Manager Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Addition of

Chemigation and In-furrow Application Instructions, and Pecan Scab Disease Listing

Product Name: ENDORSE® Water Dispersible Granules

EPA Registration Number: 66330-56

Application Date: 5/14/15 OPP Decision Number: 505319

Dear Dr. Bolin:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration

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process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Chris Pfeifer of my team by phone at 703-308-0031 or via email at pfeifer.chris@epa.gov.

Sincerely,

Andrew Bryceland, Team Leader Biochemical Pesticide Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs

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Enclosure

Alternate Brand Name for ENDORSE Water Dispersible Granules:

- **VERANDA™T Water Dispersible Granules**
- Ph-D™ Fungicide
- VERANDA™ O

[Language within brackets is optional text.]

# **ENDORSE®** Water Dispersible Granules

For use on Turf[\*], Ornamentals[\*], and Various Crops

For control or suppression of listed diseases on cucurbit vegetables[\*], fruiting vegetables[\*], ginseng\*, grapes, pome fruits[\*], root and tuber vegetables[\*],berry and small fruit[\*], strawberries[\*], stone fruits[\*], pomegranates[\*], tree nuts[\*], and nonbearing vine fruit and fruit and nut trees grown in interiorscapes[\*], ornamentals[\*], Christmas trees (nurseries and plantations)[\*], field nursery and container planting, forest nurseries, ornamentals grown in greenhouses, lath and shadehouses and other enclosed structures.

[\*Not for use in California.]

ACCEPTED 07/23/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 66330-56

GROUP **FUNGICIDE** 19

**ACTIVE INGREDIENT:** 

Polyoxin D zinc salt ..... 11.3% 88.7% OTHER INGREDIENTS: ..... 100.0%

# KEEP OUT OF REACH OF CHILDREN

# **CAUTION / PRECAUCIÓN**

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

See inside booklet for additional First Aid, Precautionary Statements, and Directions for Use

| FIRST AID   |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| If on skin or   | Take off contaminated clothing.   |  |  |  |  |  |
| clothing:   | Rinse skin immediately with plenty of water for 15-20 minutes.                              |  |  |  |  |  |
|   | Call a poison control center or doctor for treatment advice.                                |  |  |  |  |  |
| If in eyes:   | Hold eye open and rinse slowly and gently with water for 15-20 minutes.                     |  |  |  |  |  |
|   | Remove contact lenses, if present, after the first 5 minutes, then continue rinsing         |  |  |  |  |  |
|   | eye.  |  |  |  |  |  |
|   | Call a poison control center or doctor for treatment advice.                                |  |  |  |  |  |
| If swallowed:   | Call 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 do so by the poison control center or doctor. |   |  |  |  |  |  |
| Do not give anything by mouth to an unconscious person.                             |   |  |  |  |  |  |
| If inhaled:   | Move person to fresh air.   |  |  |  |  |  |
|   | If person is not breathing, call 911 or an ambulance, then give artificial respiration,     |  |  |  |  |  |
|   | preferably by mouth-to-mouth, if possible.  |  |  |  |  |  |
| Call a poison control center or doctor for further treatment advice.                |   |  |  |  |  |  |
|   | HOTLINE NUMBERS   |  |  |  |  |  |
| Have the produc   | et container or label with you when calling a poison control center or doctor, or going for |  |  |  |  |  |

treatment.

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROSAR: 1-866-303-6952 or 1-651-603-

3432.

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure, or accident) CALL

**CHEMTREC:** 1-800-424-9300 or 1-703-527-3887.

**EPA Reg. No.** 66330-56 **EPA Est. No.** \_

**ADxxxxx Net Content:** 1 lb, 2 lb 6.4 oz (2.4 lb)

**Produced for:** 

Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

For Product Information Call 1-866-761-9397

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through the skin, swallowed or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. 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)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks
- Shoes
- Chemical-Resistant gloves

### **User Safety Requirements**

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

### **USER SAFETY RECOMMENDATIONS**

- 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 moderately toxic to aquatic invertebrates and fish. 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. Do not allow runoff into lakes, streams, ponds or public waterways. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Granules exposed on soil surface may be hazardous to fish and aquatic invertebrates. Collect granules spilled during loading.

Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

### **DIRECTIONS FOR USE**

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

| For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. | r |
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### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry into 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, socks, shoes, chemical resistant gloves.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in the box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep children and pets out of treated area until sprays have dried.

### PRODUCT INFORMATION

ENDORSE Water Dispersible Granules is not for use on turf being grown for commercial seed production.

ENDORSE Water Dispersible Granules is not for homeowner use to treat food crops.

ENDORSE Water Dispersible Granules is for use in controlling or suppressing certain diseases on crops listed in this label.

Apply ENDORSE Water Dispersible Granules as a preventive or curative treatment in conjunction with good management practices.

### RESISTANCE MANAGEMENT RECOMMENDATIONS

ENDORSE Water Dispersible Granules contains a Group 19 fungicide. Fungal isolates with acquired resistance to Group 19 may eventually dominate the fungal population if Group 19 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by ENDORSE Water Dispersible Granules or other Group 19 Fungicides.

To delay fungicide resistance, consider:

- Avoiding the consecutive use of ENDORSE Water Dispersible Granules or other target site of action Group 19 fungicides that have a similar target site of action, on the same pathogens.
- Using tank mixtures or premixes with fungicides from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Basing fungicide use on a comprehensive IPM program.
- Monitoring treated fungal populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.

#### MIXING AND APPLICATION

When diseases not specified on this label are present or expected, it is appropriate to mix ENDORSE Water Dispersible Granules with appropriately labeled fungicides. When tank mixing ENDORSE Water Dispersible Granules with other products, observe all precautions and limitations on each separate product label. It is always advisable to conduct a tank mix compatibility test when you plan to mix this product with other products. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. To assess the potential for phytotoxicity, test tank mixtures on a small number of plants prior to more widespread application.

Mixing instructions for ENDORSE Water Dispersible Granules:

- Fill spray tank with water to 1/2 of the intended final volume.
- Start spray tank agitation.
- Add the appropriate amount of product to the tank according to the rates in the following tables. Follow the directions above for mixing other products in the spray tank.
- Agitate to ensure thorough mixing while adding the remaining required water.
- DO NOT allow the spray mixture to stand without agitation.

Mix only the amount of spray solution needed to treat the desired area.

For optimum control of labeled diseases, apply ENDORSE Water Dispersible Granules with sufficient water to provide a thorough coverage.

### **CHEMIGATION**

Strawberries[\*], Berry and Small Fruit[\*], Cucurbit Vegetables[\*], Fruiting Vegetables (Except Cucurbits[\*], Pome Fruits[\*], Root and Tuber Vegetables [\*], Leaves of Root and Tuber Vegetables (Human Food or Animal Feed)[\*], Grapes[\* for certain diseases], Stone Fruits[\*], Pomegranates[\*], Tree Nuts[\*], Ornamentals[\*], Turf Grasses[\*]

Apply Endorse WDG Fungicide only through sprinkler type irrigation systems, including center pivot, microjet, wheel lines, lateral move, side roll, or overhead solid set irrigation systems. Do not apply Endorse WDG Fungicide through any other type of irrigation system.

## [\*Not approved for use in California.]

### DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service Specialists, equipment manufacturers or other irrigation experts.

### **SPRAY PREPARATION**

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

### **APPLICATION INSTRUCTIONS**

First prepare a suspension of Endorse WDG Fungicide in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of Endorse WDG Fungicide and then the remaining volume of water. Then set sprinkler to deliver no more than 0.4 inch of water per acre. Start sprinkler and uniformly inject the suspension of Endorse WDG Fungicide into the irrigation water line so as to deliver the desired rate per acre. The suspension of Endorse WDG Fungicide should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you have any other questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** Avoid further field irrigation over the treated area for 24 hours after treating with Endorse WDG Fungicide to prevent washing the chemical off the crop.

### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

- 1. 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. 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 flow 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.
- 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.

- 1. Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.
- 2. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time.
- 3. 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.
- 4. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 5. 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 shutdown.
- 6. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 7. 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.
- 8. 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.
- 9. Do not apply when wind speed favors drift beyond the area intended for treatment. If you are unsure of wind conditions, contact your local extension agent.
- 10. Do not apply when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.
- 11. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments as needed.
- 12. 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.

### SOILBORNE/SEEDLING DISEASE CONTROL

### **BANDED (IN-FURROW) APPLICATION**

Use the table below to determine the correct application rate in ounces of product per 1000 row feet based on row spacing. Mix the required amount of Endorse WDG Fungicide in water and apply as banded spray (4" to 6") or seedline drench centered over the planting furrow. Apply to soil immediately before seeding or directly over seeds in the furrow just before covering with soil. The volume of water required per acre or 1000 row feet will depend on the application equipment used. Consult your local cooperative extension personnel or pest control adviser if you need assistance calibrating band spraying equipment.

Rates for banded (in-furrow) application: The 'per acre' rate is located in the far left column. Read across the line to the correct row spacing indicated at the top to find the number of ounces per 1000 row feet to apply.

| RATE PER  |                          |
|-----------|--------------------------|
| 1,000 ROW | PRODUCT PER ACRE (fl oz) |
| FEET      |                          |

| fl oz product | 12"   | 14"   | 16"   | 18"   | 20"   | 22"   | 24"   | 26"   | 28"   | 30"   | 32"   | 34"   | 36"   | 38"   | 40"   |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|               | rows  |
| 6.2           | 0.140 | 0.165 | 0.189 | 0.213 | 0.237 | 0.260 | 0.284 | 0.308 | 0.332 | 0.356 | 0.379 | 0.403 | 0.427 | 0.451 | 0.474 |

# STRAWBERRIES[\*] BERRY AND SMALL FRUIT[\*]

Amur river grape; aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrids of these

| Disease Control  | Rate                      | Application Notes  |
|--|---------------------------|--|
| Alternaria rot, Black leaf spot[*] (Alternaria alternata)  | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7 – 10 days for<br/>foliar diseases.</li> </ul> |
| Fruit rots, minor[*] (Alternaria spp.)   |                           | Apply prior to disease development and when conditions are conducive for disease.      |
| Botrytis fruit rot and blossom blight, gray mold, Cane Botrytis, Botrytis  |                           | Mix spray volume appropriate for sufficient coverage.                                  |
| Fruit Rot and blight, Gray mold leaf blight and dry crown rot,   |                           | 0 day Preharvest Interval.   |
| Postharvest rots, Botrytis crown   |                           | Do not apply by air.   |
| rot[*] (Botrytis cinerea)  |                           | Use of adjuvant may enhance coverage.  |
| Fruit rots, minor, Berry rots, Fruit rots (in addition to those appearing elsewhere in this listing) [*] (Cladosporium spp.) |                           | Apply as a drench every 14 - 28 days for crown and root rot diseases.                  |
| Anthracnose Leaf and Fruit Rot[*] (Colletotrichum sp.)   |                           |  |
| Root rot[*] (Cylindrocarpon destructans)   |                           |  |
| Powdery Mildew[*] (Sphaerotheca macularis)   |                           |  |
| Hard brown rot, Rhizoctonia bud and crown rot, leaf blight, web blight, fruit rot[*] (Rhizoctonia solani)                    |                           |  |
| Disease Suppression  |                           | For Powdery Mildew suppression, begin sprays   |
| Powdery Mildew[*] (Uncinula necator)   |                           | preventively and continue as needed on a 14 day interval.                              |

### Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of ENDORSE Water Dispersible Granules (2.1 oz ai/A) per season.
- [\* Not for use in California.]

### **CUCURBIT VEGETABLES[\*]**

Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; Cucumber; Gherkin; Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin; Summer Squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Winter Squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); Watermelon

| Disease Control   | Rate                      | Application Notes   |
|---|---------------------------|---|
| Powdery Mildew[*] (Sphaerotheca sp.)                          | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7-10 days<br/>for foliar diseases.</li> </ul>                          |
| Gummy Stem Blight (Vine decline)[*] (Didymella bryoniae)      |                           | Mix spray volume appropriate for sufficient coverage.   |
| Gray Mold[*] (Botrytis sp.)                                   |                           | <ul> <li>Apply prior to disease development and<br/>when conditions are conducive for<br/>disease.</li> </ul> |
| Corynespora leaf spot[*] (Corynespora cassicola)              |                           | 0 day Preharvest Interval.  |
| Scab[*]<br>( <i>Cladosporium</i> sp.)                         |                           |   |
| Alternaria leaf spot[*] (Alternaria alternata)                |                           |   |
| Early Blight[*] (Alternaria sp.)                              |                           |   |
| Belly rot, Damping-off and Web blight[*] (Rhizoctonia solani) |                           |   |

#### Notes

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 5 applications of ENDORSE Water Dispersible Granules (3.5 oz ai/A) per season.

# FRUITING VEGETABLES (Except Cucurbits)[\*]

Eggplant; Groundcherry; Pepino; Pepper (includes bell pepper, chili pepper, cooking pepper,

pimento, sweet pepper); Tomatillo; Tomato

| Rate                      | Application Notes   |
|---------------------------|---|
| 6.2 oz/A<br>(0.7 oz ai/A) | Apply as a foliar spray every 7 - 10 days for foliar diseases.  |
|                           | <ul> <li>Apply prior to disease development and<br/>when conditions are conducive for<br/>disease.</li> </ul> |
|                           | Mix spray volume appropriate for sufficient coverage.   |
|                           | 0 day Preharvest Interval.  |
|                           |   |
|                           |   |
|                           |   |
|                           | 6.2 oz/A  |

### Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 5 applications of ENDORSE Water Dispersible Granules (3.5 oz ai/A) per season.

# POME FRUITS[\*]

Apple; crabapple; mayhaw; pear, Asian; quince; quince, Chinese; quince, Japanese; European pear

| Disease Control   | Rate                      | Application Notes  |
|---|---------------------------|--|
| Powdery Mildew[*] (Podosphaera leucotricha  | 6.2 oz/A<br>(0.7 oz ai/A) | Mix spray volume appropriate for sufficient coverage.  |
| Phyllactinia mali<br>Oidium spp.)   |                           | <ul> <li>Apply as a foliar spray every 7 - 10 days<br/>for foliar diseases.</li> </ul>   |
| Alternaria Leaf Spot, Alternaria Blotch[*] (Alternaria mali)  |                           | Apply prior to disease development and<br>when conditions are conducive for<br>disease. Start sprays for scab control at   |
| Moldy core and core rot, Alternaria fruit rot[*] (Alternaria spp)   |                           | green tip and continue as needed on a 7 - 10 day interval.   |
| Alternaria rot, Alternaria spot and fruit rot, Black spot (of Japanese pear)[*] (Alternaria alternata)                        |                           | <ul> <li>For Powdery Mildew control, begin<br/>preventively and repeat as necessary on<br/>a 10 - 14 day interval. The use of an<br/>alternation program with a sterol<br/>inhibiting fungicide is recommended.</li> </ul> |
| Dry eye rot, blossom-end rot,<br>Green fruit rot, Botrytis spur and<br>blossom blight, Gray mold rot[*]<br>(Botrytis cinerea) |                           | 0 day Preharvest Interval.   |
| Moldy core and core rot, Ripe fruit rot[*] (Cladosporium spp.)  |                           |  |
| Blotch Marssonina blotch[*] (Diplocarpon mali)  |                           |  |
| Disease Suppression   |                           |  |
| Scab[*]<br>(Venturia sp.)   |                           |  |
| Apple scab suppression[*] (Venturia inaequalis)   |                           |  |

# Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 6 applications of ENDORSE Water Dispersible Granules (4.2 oz ai/A) per season.
- [\* Not for use in California.]

# ROOT AND TUBER VEGETABLES[\*]

Carrot; ginseng\*; potato

| Disease Control   | Rate                      | Application Notes   |
|---|---------------------------|---|
| Alternaria blight[*] (Alternaria panax)   | 6.2 oz/A<br>(0.7 oz ai/A) | Apply as a foliar spray every 7 - 10 days for foliar diseases.  |
| Botrytis blight, Gray mold rot,<br>Watery soft rot, Gray mold[*]<br>(Botrytis cinerea)  |                           | Apply prior to disease development<br>and when conditions are conducive for<br>disease.   |
| Early Blight (Potato)[*] (Alternaria solani)  |                           | Mix spray volume appropriate for sufficient coverage.   |
| Alternaria leaf spot, Brown spot, Black pit[*] (Alternaria alternata)   |                           | 0 day Preharvest Interval.  |
| Damping-off, black leg, black root and seedling blight, Canker, Cavity spot, Crown rot, Rhizoctonia canker, and Black scurf[*] (Rhizoctonia solani) |                           |   |
| Root and Crown Disease Control (Ginseng)  |                           | Additional Application Notes for Ginseng  |
| Cylindrocarpon root rot (Cylindrocarpon destructans) Rhizoctonia root and crown rot   |                           | <ul> <li>Apply as a drench every 14 days for<br/>Cylindrocarpon rot control.</li> <li>Apply as a drench every 14 – 28 days</li> </ul> |
| (Rhizoctonia solani)  |                           | for root and crown rot diseases.  |

### Notes:

- For use on Ginseng:
  - Apply within 2 weeks following plant emergence and continue throughout the season.
  - Consult your local extension agent or local recommendations for information relating to proper timing for control of these diseases.
  - Use in alternation with fungicides that have different modes of action.
  - Do not apply more than 3 applications of ENDORSE Water Dispersible Granules (2.1 oz ai/A) per season.

<sup>\*</sup> Not for use in California.

| LEAVES OF ROOT AND TUBER V Carrot   | EGETABLES (HUI            | MAN FOOD OR ANIMAL FEED)[*]  |
|---|---------------------------|--|
| Disease Control   | Rate                      | Application Notes  |
| Alternaria leaf spot and stem blight, Alternaria storage rot[*] (Alternaria spp.) | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7 - 10 days for foliar diseases.</li> <li>Apply prior to disease development and</li> </ul>   |
| Gray mold rot[*] (Botrytis cinerea  |                           | when conditions are conducive for disease.   |
| Rhizoctonia stem canker (sprout rot), Rootlet rot[*] (Rhizoctonia solani)         |                           | <ul> <li>Mix spray volume appropriate for sufficient coverage.</li> <li>0 day Preharvest Interval.</li> <li>Apply as a drench every 14 - 28 days for crown and root rot diseases.</li> </ul> |

# Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 5 applications of ENDORSE Water Dispersible Granules (3.5 oz ai/A) per season.

| GRAPES  |                           |  |
|---|---------------------------|--|
| Disease Control   | Rate                      | Application Notes  |
| Alternaria rot, Black leaf spot[*] (Alternaria alternata)   | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7</li> <li>10 days for foliar diseases.</li> </ul>                              |
| Fruit rots, minor[*] (Alternaria spp.)  |                           | Apply prior to disease<br>development and when   |
| Botrytis Fruit Rot, Botrytis Bunch Rot (Botrytis cinerea)   |                           | conditions are conducive for disease.  |
| Botrytis fruit rot and blossom  |                           | <ul> <li>Mix spray volume appropriate<br/>for sufficient coverage.</li> </ul>  |
| blight, gray mold, Cane Botrytis, and blight, Gray mold leaf blight and dry crown rot, Postharvest rots, Botrytis crown rot[*] (Botrytis cinerea) |                           | <ul> <li>For Botrytis Bunch Rot<br/>control, spray product at<br/>veraison and 7 days prior to<br/>harvest.</li> </ul> |
| Fruit rots, minor, Berry rots and   |                           | 0 day Preharvest Interval.   |
| raisin molds, Fruit rots (in  |                           | Do not apply by air.   |
| addition to those appearing elsewhere in this listing)[*] (Cladosporium spp.)   |                           | Use of adjuvant may enhance coverage.  |
| Anthracnose Leaf and Fruit Rot[*] (Colletotrichum sp.)  |                           | <ul> <li>Apply as a drench every 14 -<br/>28 days for crown and root rot<br/>diseases.</li> </ul>                      |
| Root rot[*] (Cylindrocarpon destructans)  |                           |  |
| Hard brown rot, Rhizoctonia bud and crown rot, leaf blight, web blight, fruit rot[*] (Rhizoctonia solani)   |                           |  |
| Disease Suppression   |                           | For Powdery Mildew   |
| Powdery Mildew[*] (Erysiphe (Uncinula) necator), (Oidium tuckeri)   |                           | suppression. Begin sprays preventively and continue as needed on a 14 day interval.                                    |
|   |                           | 1  |

# **Notes**

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of ENDORSE Water Dispersible Granules (2.1 oz ai/A) per season.

# STONE FRUITS[\*]

Sweet cherry or Tart cherry; Peach, and Plum or Prune plum; apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these

| Disease Control  | Rate                      | Application Notes  |  |  |
|--|---------------------------|--|--|--|
| Alternaria leaf spot, Alternaria rot[*] (Alternaria alternata) | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7 – 10 days for<br/>foliar diseases.</li> </ul> |  |  |
| Alternaria rot[*] (Alternaria spp.)                            |                           | Apply prior to disease development and<br>when conditions are conducive for disease.   |  |  |
| Gray mold rot, Green fruit rot, Botrytis rot[*]                |                           | Mix spray volume appropriate for sufficient coverage.                                  |  |  |
| (Botrytis cinerea)   |                           | 0 day Preharvest Interval.   |  |  |
| Scab[*] (Cladosporium spp.)                                    |                           | Apply as a drench every 14 – 28 days for crown and root rot diseases.                  |  |  |
| Powdery Mildew[*] (Oidium spp.)                                |                           |  |  |  |
| Powdery Mildew[*] (Podosphaera leucotricha)                    |                           |  |  |  |
| Rhizoctonia root rot[*] (Rhizoctonia solani)                   |                           |  |  |  |
| [*Not for use in California.]                                  |                           |  |  |  |

| POMEGRANATES[*]  Disease Control  | Rate                      | Application Notes  |
|---|---------------------------|--|
| Alternaria fruit rot[*] (Alternaria spp.) Botrytis fruit rot (Gray mold)[*] | 6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Apply as a foliar spray every 7 - 10 days for foliar diseases.</li> <li>Apply when conditions are conducive for disease. Beginning during bloom through preharvest.</li> <li>Mix spray volume appropriate for sufficient coverage.</li> <li>0 day Preharvest Interval.</li> </ul> |

### Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of ENDORSE Water Dispersible Granules (2.1 oz ai/A) per season.

# TREE NUTS[\*]

almond; pecan; African nut-tree; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these

| cultivars, varieties, and/or hybri   |                                   |  |
|--|-----------------------------------|--|
| Disease Control  Alternaria, Alternaria late blight[*] (Alternaria alternata)  Leaf spots[*] (Alternaria spp.)  Blossom and shoot blight[*] (Botrytis cinerea)  Cylindrocarpon dieback[*] Cylindrocarpon destructans  Powdery mildew[*] (Oidium spp.)  Damping-off[*] Root rot[*]  Seedling blight[*] (Rhizoctonia solani) | Rate<br>6.2 oz/A<br>(0.7 oz ai/A) | <ul> <li>Application Notes</li> <li>Mix spray volume appropriate for sufficient coverage (Spray every row to ensure coverage [avoid every other row applications]).</li> <li>Apply as a foliar spray every 7-10 days for foliar diseases.</li> <li>Apply prior to disease development and when conditions are conducive for disease.</li> <li>0 day Preharvest Interval.</li> <li>May be applied by air or ground. EXCEPT Pistachios. Do not apply to Pistachios by air.</li> <li>Use of an adjuvant may enhance coverage.</li> </ul>  |
| Hull rot[*] (Rhizopus stolonifer)  | 6.2 oz/A<br>(0.7 oz ai/A)         | For control of Hull rot caused by <i>Rhizopus stolonifer</i> apply Endorse Water Dispersible Granules at the rate of 6.2 oz/A in a dilute spray beginning at 10% hull split. Follow up with a second application at 20 – 40% hull split, if necessary. Mix in appropriate spray volume appropriate for sufficient coverage (Spray every row to ensure coverage [avoid every other row applications]).  Begin sprays preventively and repeat on a 10–14 day interval.  O day Preharvest Interval.  May be applied by air or ground.  Use of an adjuvant may enhance coverage. |

# TREE NUTS[\*]

almond; pecan; African nut-tree; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these

|   | Cultivars, varieties, and/or hybrids of these |   |  |  |  |
|---|---|---|--|--|--|
| Disease Control   | Rate  | Application Notes   |  |  |  |
| Scab[*] (Cladosporium carpophilum)  Pecan Scab[*] (Fusicladium effusum) | 6.2 oz/A<br>(0.7 oz ai/A)                     | For control of Almond and Pecan scab apply Endorse Water Dispersible Granules at the rate of 6.2 oz/A in a dilute spray when infection periods begin. Retreatment with Endorse Water Dispersible Granules or other effective fungicides should be made be on 10 – 14 day intervals throughout the season as disease infection periods occur. Mix in appropriate spray volume appropriate for sufficient coverage (Spray every row to ensure coverage [avoid every other row applications]).  • Begin sprays preventively and repeat on a 10– 14 day interval.  • 0 day Preharvest Interval.  • May be applied by air or ground.  • Use of an adjuvant may enhance coverage. |  |  |  |
| Rust[*] (Tranzchelia discolor)  | 6.2 oz/A<br>(0.7 oz ai/A)                     | For control of Almond rust apply Endorse Water Dispersible Granules at the rate of 6.2 oz/A in a dilute spray when infection periods begin. Retreatment with Endorse Water Dispersible Granules or other effective fungicides should be made on 14 - 21 day intervals throughout the season as disease infection periods occur. Mix in appropriate spray volume appropriate for sufficient coverage (Spray every row to ensure coverage [avoid every other row applications]).  Begin sprays preventively and repeat on a 10– 14 day interval.  O day Preharvest Interval.  May be applied by air or ground.  Use of an adjuvant may enhance coverage.                      |  |  |  |
| Disease Suppression   |   |   |  |  |  |
| Botryosphaeria blight[*]  | 6.2 oz/A                                      |   |  |  |  |
| (Botryosphaeria sp.)  | (0.7 oz ai/A)                                 |   |  |  |  |

### Notes:

- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of ENDORSE Water Dispersible Granules (2.1 oz ai/A) per season.

| ORNAMENTALS*, 1  |  |  |                                 |  |  |
|--|--|--|---------------------------------|--|--|
| Foliar Diseases  | Rate   | Application Notes  |                                 |  |  |
| Anthracnose (Colletotrichum)   | 0.25 – 0.5 lb/100<br>gal/A<br>(0.03 – 0.06 lb ai/100<br>gal/A) | 11   | , 4p., as a remai spray every . |  |  |
| †Botrytis blight<br>( <i>Botrytis cinerea</i> )  |  | <ul> <li>Apply prior to disease<br/>development and when<br/>conditions are conducive to<br/>disease development.</li> </ul> |                                 |  |  |
| Curvularia   |  |  |                                 |  |  |
| Downy Mildew (Pernospora sp. Plasmopara sp.)   |  | Mix spray volume appropriate for sufficient coverage.  |                                 |  |  |
| Powdery Mildew (Oidium sp. Erysiphe sp. Sphaerotheca sp.)                                    |  |  |                                 |  |  |
| Rhizoctonia aerial blight (Rhizoctonia solani)   |  |  |                                 |  |  |
| †Alternaria blight ( <i>Alternaria</i> panax)  | 0.5 lb/100 gal/A<br>(0.06 lb ai/100 gal/A)                     |  |                                 |  |  |
| Apple scab<br>(Venturia inaequalis)  |  |  |                                 |  |  |
| Root and Crown Diseases  | Rate   | Application Notes  |                                 |  |  |
| *Rhizoctonia root and crown rot (Rhizoctonia solani) Black Root Rot (Thielaviopsis basicola) | 0.25 - 0.5 lb/100<br>gal/A<br>(0.03 - 0.06 lb ai/100<br>gal/A) | <ul> <li>Apply as a drench every 14 –<br/>28 days for crown and root rot<br/>diseases.</li> </ul>                            |                                 |  |  |

# Notes:

Consult your local extension agent or local recommendations for information relating to proper timing for control of these diseases.

• Use in alternation with fungicides that have different modes of action.

<sup>†</sup> Control

<sup>&</sup>lt;sup>1</sup> Not for use in California.

<sup>\*</sup>Includes Christmas trees (nursery and plantations) and non-bearing vine fruit and fruit and nut trees.

| TURF GRASSES <sup>2</sup>   |   |  |  |  |  |
|---|---|--|--|--|--|
| Disease   | Rate  | Application Notes  |  |  |  |
| Control  Brown Patch Large Patch  Aids in Control (Except California)  Cool Weather Brown Patch (Yellow Patch) (Rhizoctonia cerealis) | 2.4 lb/A (0.27 lb ai/A in a minimum of 88 gal of water) | <ul> <li>Repeat treatment on a 7-14 day schedule where environmental conditions are conducive to development of diseases. <sup>1</sup></li> <li>When symptoms are present, best control will be achieved by using a shorter interval.</li> <li>For best results apply after mowing.</li> </ul> |  |  |  |
| Foliar and Basal Anthracnose (Colletotrichum graminicola) Gray Snow Mold (Typhula ishikariensis and                                   |   |  |  |  |  |
| Typhula incarnate)  Leaf Spot/Melting Out (Dreschlera poae)  Pink Snow Mold   |   |  |  |  |  |
| (Microdochium solani) Red Thread (Laetisaria fuciformis)  |   |  |  |  |  |
| Rhizoctonia Damping Off (Rhizoctonia solani)  Zoysia Patch (Rhizoctonia solani)   |   |  |  |  |  |
| Aids in Suppression<br>(Except California)  |   |  |  |  |  |
| Gray Leaf Spot<br>(Pyricularia grisea)  |   |  |  |  |  |
| Suppression and Short Term Control:   | 1 oz/1,000 sq ft in minimum of 2 gal of water           | Make two-three applications on a 7-day interval schedule.  |  |  |  |
| Fairy Ring (including <i>Marasmius</i> spp., <i>Lepiota</i> spp. and <i>Agaricus</i> spp.)  | (0.27 lb ai/A in 88 gal of water)                       | <ul> <li>Use a penetrating wetting agent.</li> <li>Immediately following application, water in the treatment with sufficient irrigation (0.5-1") to wet the active root zone.</li> </ul>   |  |  |  |

### Notes:

• With the exception for treatment of Fairy Ring, irrigation or rainfall soon after treatment with ENDORSE Water Dispersible Granules will decrease disease control. For best control, do not irrigate for 12 hours after treatment.

• Use in alternation with fungicides that have different modes of action.

<sup>&</sup>lt;sup>1</sup>Consult your local extension agent or local recommendations for information relating to proper timing for control of these diseases.

<sup>&</sup>lt;sup>2</sup> Not for use in California.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in dry place away from food or feed.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed, by State and local authorities, by burning. If burned, stay out of smoke. Offer for recycling, if available.

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, Leak, Fire or Accident) ASSISTANCE: CALL CHEMTREC 1-800-424-9300

## **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

Arysta 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 described above, when used in accordance with the Directions for Use under normal conditions.

This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above. TO THE CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE. HANDLING. APPLICATION. STORAGE. OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION, THE REPLACEMENT OF THE PRODUCT.

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ENDORSE WDG (MASTER) 05/13/15