

VACCIPLANT®

FUNGICIDE

STIMULANT OF PLANT DEFENSE REACTIONS

ACTIVE INGREDIENT:

Laminarin 3.51%

OTHER INGREDIENTS: 96.49%

TOTAL: 100.00%

EPA Reg. No. 70506-608

EPA Est. No. (MK) 089332-GA-002; (CJ) 070815-GA-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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.
IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

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

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671.

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

For Product Use Information Call 1-800-438-6071

Net Contents: 2.5 Gallons

FUNGICIDE

Produced For: **UPL NA Inc.** • 630 Freedom Business Center, Suite 402
King of Prussia, PA 19406 U.S.A. • 1-800-438-6071



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing 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.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

PHYSICAL AND CHEMICAL HAZARDS

FOR CHEMICAL EMERGENCY: spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long pants, long-sleeved shirt, shoes plus socks, and chemical-resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove PPE clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. Do not apply this product through any type of irrigation system. Do not apply this product when raining.

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 (REI). 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 to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

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

GENERAL INFORMATION

VACCIPLANT® is an extract from the plant *Laminaria digitata* for use on food and non-food crops. **VACCIPLANT** applied to actively growing plants (see **DIRECTIONS FOR USE**) will improve plant health, and will help make the treated portions resistant to certain plant diseases. Plant health benefits often result in greater yields at harvest. Use **VACCIPLANT** as a preventative rather than a curative application. Apply prior to disease infestation to protect the growing leaf tissue. See specific information for diseases controlled and use rates on food and non-food crops.

VACCIPLANT can be used as a foliar spray, plant dip, and soil drench to control or suppress certain soil-borne diseases and to promote healthy root growth.

MODE OF ACTION

The extract obtained from *Laminaria digitata* plant material contains active biological compounds. The extract, when applied to the host plant, increases the plant's natural defense system and strengthens cell walls. This induced resistance against important diseases is systemic. Repeat applications according to the Application Instructions to maintain induction and to protect new plant growth. The resistance induction takes place within one to two days. Use **VACCIPLANT**, therefore, as a preventative treatment.

PREPARATION OF THE MIXTURE

Shake the container and pour the required amount of **VACCIPLANT** into the sprayer tank partially filled with water while filling with the appropriate amount of water. Maintain good agitation. Do not store the mixture overnight.

GENERAL APPLICATION INSTRUCTIONS

Do not apply this product post-harvest. Apply the required amount of **VACCIPLANT** according to the table below.

PRE-PLANT DIP/SOIL DRENCH USE DIRECTIONS

VACCIPLANT can be applied as a pre-plant dip or soil drench application for improved plant health and suppression of certain soil-borne diseases. Apply **VACCIPLANT** in a 0.15% v/v solution as a pre-plant dip or soil drench immediately prior to transplanting, unless specified differently in the **SELECTED CROPS** section.

GREENHOUSE APPLICATION INSTRUCTIONS

VACCIPLANT can be used in greenhouse applications prior to transplant. At low water volumes, where acreage calculations do not apply, mix **VACCIPLANT** at 0.15% v/v solution. Start applications preventatively before the onset of disease.

AERIAL APPLICATION INSTRUCTIONS

VACCIPLANT may be applied aerially in low volume applications. For any water volume less than 70 gallons per acre apply **VACCIPLANT** at 14 fl oz per acre.

APPLICATION RATES FOR SELECTED CROPS

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Artichoke*	Powdery Mildew (<i>Erysiphe cichoracearum</i>) (<i>Leveillula taurica</i>) Ramularia Leaf Spot (<i>Ramularia cynarae</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Asparagus*	Botrytis Blight (<i>Botrytis cinerea</i>) Rust (<i>Puccinia asparagi</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Bushberries and Caneberries* Blueberry Blackberry (all varieties) Cranberry Currant Elderberry Gooseberry Huckleberry Juneberry Ligonberry Loganberry Raspberry (red and black) Salal and other berry crops	Mummy Berry (<i>Monilinia vaccinii-corymbosi</i>) Alternaria Fruit Rot (<i>Alternaria</i> spp.) Anthracnose Fruit Rot (<i>Colletotrichum acutatum</i>) Bacterial Canker (<i>Pseudomonas syringae</i>) Botrytis Blight (<i>Botrytis cinerea</i>) Leaf Rust (<i>Pucciniastrum vaccinii</i>) Leaf Spot and Blotch (<i>Mycosphaerella</i> spp.) (<i>Septoria</i> spp.) Phomopsis Leaf Spot, Twig Blight, and Fruit Rot (<i>Phomopsis</i> spp.) Powdery Mildew (<i>Microsphaera alni</i>) Spur Blight (<i>Didymella</i> spp.) (<i>Phoma</i> spp.)	Foliar	14 fl oz - 22 fl oz	<p>Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p> <p>Mummy Berry - Initiate application at bud break stage of development. Apply this product preventatively and repeat on a 7 - 14 day interval or as needed. For best performance, tank mix this product with other registered fungicides for Mummy Berry control.</p> <p>Botrytis Blight - Apply this product preventatively when the first disease symptoms are visible and re-apply every 7 - 14 days.</p> <p>Bacterial Canker - Apply this product prior to Fall rains and repeat applications during dormancy before Spring growth. This product can be tank mixed with another registered fungicide for improved control of bacterial canker.</p> <p>Anthracnose Fruit Rot and Alternaria Fruit Rot on Blueberries - Initiate application at green tip and continue applications on a 7 - 14 day interval.</p>

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Bulb Vegetables* Onion (Bulb and Green) Garlic Leek Shallot and other bulb vegetable crops	Bacterial Leaf Streak (<i>Xanthomonas</i> spp.) Botrytis Leaf Blight (<i>Botrytis squamosa</i>) Botrytis Neck Rot (<i>Botrytis</i> spp.) Downy Mildew (<i>Peronospora</i> spp.) Onion Purple Blotch (<i>Alternaria porri</i>) Powdery Mildew (<i>Erysiphe</i> spp.) Rust (<i>Puccinia porri</i>) Stemphylium Leaf Blight (<i>Stemphylium vesicarium</i>) <i>Fusarium</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia</i> spp. Yellow Soft Virus	Foliar Plant Dip/ Soil Drench	14 fl oz - 22 fl oz 0.15% v/v solution	<p>Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p> <p>For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.</p>

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Cereal Grains* Barley Buckwheat Grain Milo Oat Millets Rice Rye Sorghum Triticale Wheat and other cereal grain crops	Powdery Mildew <i>(Erysiphe graminis)</i> Bacterial Blight and Streak <i>(Xanthomonas spp.)</i> Brown Rot, Leaf Spots & Smuts <i>(Ceratobasidium spp.)</i> <i>(Cercospora spp.)</i> <i>(Cochliobolus spp.)</i> <i>(Drechslera spp.)</i> Rice Blast <i>(Pyricularia grisea)</i> Rust <i>(Puccinia spp.)</i> Septoria Leaf Spot <i>(Septoria spp.)</i> Sheath Spot and Blight <i>(Rhizoctonia oryzae)</i> <i>(Thanatephorus cucumeris)</i> Stem Rot <i>(Sclerotium oryzae)</i> Smut <i>(Tilletia barclayana)</i>	Foliar	14 fl oz - 22 fl oz	To optimize disease control and maximize yields, begin applications prior to flag leaf/panicle initiation/floral initiation. Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Citrus Crops* Orange Grapefruit Lemon Tangelo Tangerine Pummelo and other citrus crops	Bacterial Canker <i>(Xanthomonas spp.)</i> Alternaria Brown Spot <i>(Alternaria alternata)</i> Bacterial Blast <i>(Pseudomonas syringae)</i> Black Spot <i>(Guignardia citricarpa)</i> <i>(Phyllosticta citricarpa)</i> Greasy Spot <i>(Mycosphaerella citri)</i> Melanose <i>(Diaporthe citri)</i> Postbloom Fruit Drop <i>(Colletotrichum acutatum)</i> Scab <i>(Elsinoe australis)</i> <i>(Elsinoe fawcetti)</i>	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Cole Crops (Brassicas)* Broccoli Broccoli Rabe Brussels Sprouts Cabbage Chinese Broccoli Chinese Cabbage (Bok Choy) Chinese Cabbage (Napa) Chinese Mustard Cabbage (Gai Choy) Cauliflower Cavalo Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens and other cole crops	Powdery Mildew (<i>Erysiphe cruciferarum</i>) <i>(Erysiphe polygoni)</i> Alternaria Leaf Spot (<i>Alternaria</i> spp.) Downy Mildew (<i>Peronospora parasitica</i>) Pin Rot Complex (<i>Alternaria/Xanthomonas</i>) Xanthomonas Leaf Spot (<i>Xanthomonas campestris</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
VACCIPLANT has a pre-harvest interval (PHI) of 0 days . Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours .				

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Corn* Sweet Corn Field Corn Popcorn Silage Corn Seed Corn and other corn crops (includes crops grown for seed)	Anthracnose Leaf Blight (<i>Colletotrichum graminicola</i>) Eye Spot (<i>Aureobasidium zeae</i>) Grey Leaf Spot (<i>Cercospora zeae-maydis</i>) Rusts (<i>Puccinia</i> spp.) Northern Leaf Blight (<i>Exserohilum turcicum</i>) Northern Leaf Spot (<i>Cochliobolus carbonum</i>) Southern Leaf Blight (<i>Cochliobolus heterostrophus</i>)	Foliar	14 fl oz - 22 fl oz	To optimize disease control and maximize yields, apply VACCIPLANT prior to Tassel. Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Cotton*	Alternaria Leaf Spot, Boll Rot (<i>Alternaria</i> spp.) Anthracnose, Boll Rot (<i>Glomeria</i> spp.) Ascochyta Blight, Boll Rot (<i>Ascochyta</i> spp.) Cercospora Blight and Leaf Spot (<i>Cercospora</i> spp.) Diplodia Boll Rot (<i>Diplodia</i> spp.) Hard Lock, Boll Rot (<i>Fusarium</i> spp.) Leaf Spot (<i>Corynespora cassiicola</i>) Phoma Blight, Boll Rot (<i>Phoma</i> spp.) Rust (<i>Puccinia</i> spp.) (<i>Phakopsora</i> spp.) Stemphylium Leaf Spot (<i>Stemphylium</i> spp.)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Cucurbits* Includes all types and hybrids of: Chayote Chinese Waxgourd Cucumber Citron Melon Gherkin Pumpkin Watermelon Edible Gourd: Chinese Okra Cucuzza Hyotan Momordica spp.: Balsam Apple Balsam Pear Bitter Melon Chinese Cucumber Muskmelon: Cantaloupe Casaba Crenshaw Melon Golden Pershaw Melon Honeydew Melon Honey Balls Mango Melon Persian Melon Pineapple Melon Santa Claus Melon Snake Melon	Powdery Mildew <i>(Erysiphe cichoracearum)</i> <i>(Sphaerotheca fuliginea)</i> Anthracnose <i>(Colletotrichum lagenarium)</i> Alternaria Blight <i>(Alternaria cucumerina)</i> Cercospora Leaf Spot <i>(Cercospora citrullina)</i> Downy Mildew <i>(Pseudoperonospora cubensis)</i> Gummy Stem Blight <i>(Didymella bryoniae)</i> Phytophthora Blight <i>(Phytophthora capsici)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 10 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
	<i>Fusarium</i> spp. <i>Phytophthora</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia</i> spp. <i>Verticillium</i> spp.	Plant Dip/ Soil Drench	0.15% v/v solution	For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Fruiting Vegetables* Tomato Pepper Eggplant Ground Cherry Okra Tomatillo and other fruiting vegetable crops	Bacterial Blight <i>(Xanthomonas spp.)</i> Bacterial Spot <i>(Xanthomonas spp.)</i> Bacterial Speck <i>(Pseudomonas syringae)</i> Black Mold <i>(Alternaria alternata)</i> Early Blight <i>(Alternaria solani)</i> Grey Mold <i>(Botrytis cinerea)</i> Late Blight <i>(Phytophthora infestans)</i> Phytophthora Blight <i>(Phytophthora capsici)</i> Powdery Mildew <i>(Erysiphe spp.)</i> <i>(Leveillula taurica)</i> <i>(Oidiopsis taurica)</i> <i>(Sphaerotheca spp.)</i> Target Spot <i>(Corynespora cassiicola)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 10 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
	<i>Fusarium</i> spp. <i>Phytophthora</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia</i> spp. <i>Verticillium</i> spp.	Plant Dip/ Soil Drench	0.15% v/v solution	For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.
VACCIPLANT has a pre-harvest interval (PHI) of 0 days . Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours .				

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Grape**	Powdery Mildew <i>(Uncinula necator)</i> Angular Leaf Spot <i>(Mycosphaerella angulata)</i> Anthracnose <i>(Elsinoe ampelina)</i> Botrytis Bunch Rot <i>(Botrytis cinerea)</i> Black Rot <i>(Guignardia bidwellii)</i> Downy Mildew <i>(Plasmopara viticola)</i> Eutypa <i>(Eutypa lata)</i> Leaf Blight <i>(Pseudocercospora vitis)</i> Phomopsis Fruit Rot <i>(Phomopsis viticola)</i> Ripe Rot <i>(Colletotrichum gloeosporioides)</i> Sour Rot <i>(Alternaria tenuis)</i> <i>(Aspergillus spp.)</i> <i>(Cladosporium herbarum)</i> <i>(Penicillium spp.)</i> <i>(Rhizopus arrhizus)</i>	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 10 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Grass Seed*	Powdery Mildew <i>(Erysiphe graminis)</i> <i>(Oidium spp.)</i> <i>(Podosphaera spp.)</i> <i>(Sphaerotheca spp.)</i> Rust <i>(Puccinia spp.)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 10 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Hops*	Downy Mildew (<i>Pseudoperonospora humuli</i>) Powdery Mildew (<i>Sphaerotheca macularis</i>)	Foliar	14 fl oz - 22 fl oz	<p>Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v.</p> <p>Repeat applications at 7 - 10 day intervals.</p> <p>Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p> <p>Minimum spray volumes for hop growth stages are as follows:</p> <p>Emergence to Training: Apply 14 fl oz of this product per acre using a minimum spray volume of 20 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.</p> <p>Training to Wire-Touch: Apply 14 fl oz of this product per acre using a minimum spray volume of 50 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.</p> <p>Wire-Touch through Harvest: Apply VACCIPLANT at 0.15% v/v in volumes above 70 gallons per acre. Higher water volumes may be necessary to achieve thorough coverage.</p> <p>For control of Downy Mildew: Tank mix this product with another fungicide labeled for Downy Mildew control and re-apply at a 7-day interval or according to the label directions of the tank mix partner. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p>
<p>VACCIPLANT has a pre-harvest interval (PHI) of 0 days.</p> <p>Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.</p>				

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Leafy Vegetable Crops*** Arugula Celery Corn Salad Cress Dandelion Dock Edible Chrysanthemum Endive Fennel Head Lettuce Leaf Lettuce Parsley Purslane Radicchio Rhubarb Spinach Swiss Chard and other leafy vegetable crops	Bacterial Blight/Rot <i>(Xanthomonas spp.)</i> Cercospora Leaf Spot <i>(Cercospora spp.)</i> Downy Mildew <i>(Bremia lactuca)</i> <i>(Peronospora spp.)</i> Drop <i>(Sclerotinia minor)</i> <i>(Sclerotinia sclerotiorum)</i> Grey Mold <i>(Botrytis cinerea)</i> Late Blight <i>(Septoria apiicola)</i> Pink Rot <i>(Sclerotinia sclerotiorum)</i> Powdery Mildew <i>(Erysiphe cichoracearum)</i> Sclerotinia Head and Leaf White Rust <i>(Albugo occidentalis)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 10 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Legume Vegetables* (not including soybeans and peanuts) Chick Peas Dry Beans Garbanzo Beans Green Beans Lentils Lima Beans Peas Shell Beans Snap Beans Split Peas and other legume crops (including those grown for seed or oil production)	Bacterial Blight <i>(Xanthomonas campestris)</i> Grey Mold <i>(Botrytis cinerea)</i> Pythium (aerial blight phase) <i>(Pythium spp.)</i> Powdery Mildew <i>(Erysiphe spp.)</i> Rust <i>(Puccinia spp.)</i> <i>(Uromyces appendiculatus)</i> White Mold <i>(Sclerotinia sclerotiorum)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Mint and Other Herbs/Spices* Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil Chive Clary Coriander Costmary Cilantro Curry Dillweed Horehound Hyssop Lavender Lemongrass Lovage Marjoram Nasturtium Parsley (dried) Peppermint Rosemary Sage Savory (Summer and Winter) Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood and other herbs/spices	Downy Mildew <i>(Peronospora spp.)</i> Powdery Mildew <i>(Erysiphe spp.)</i> Rust <i>(Puccinia menthae)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
VACCIPLANT has a pre-harvest interval (PHI) of 0 days . Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours .				

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Oil Seed Crops* (not including cotton, peanut, or soybean) Canola Castor Flax Rapeseed Safflower Sesame Sunflower and other oil seed crops	Bacterial Pustule (<i>Xanthomonas</i> spp.) Bacterial Speck (<i>Pseudomonas syringae</i> pv. <i>glycinea</i>) Brown Spot (<i>Septoria glycines</i>) Cercospora Leaf Spot (<i>Cercospora</i> spp.) Downy Mildew (<i>Peronospora manshurica</i>) Pod and Stem Blight (<i>Diaporthe phaseolorum</i> var. <i>sojae</i>) (<i>Phomopsis longicolla</i>) White Mold/Sclerotinia Stem Rot (<i>Sclerotinia sclerotiorum</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Olive*	Olive Knot (<i>Pseudomonas savastanoi</i>)	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 10 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Ornamentals* Herbaceous Ornamentals Flowering Plants Foliage Plants Woody Ornamentals Broadleaves, Shrubs and Trees Conifers, Shrubs and Trees	Anthracnose <i>(Colletotrichum spp.)</i> Bacteria <i>(Erwinia spp.)</i> <i>(Pseudomonas spp.)</i> <i>(Xanthomonas spp.)</i> Black Spot of Rose <i>(Diplocarpon rosae)</i> Blossom Blight <i>(Monilinia spp.)</i> Downy Mildew <i>(Peronospora spp.)</i> <i>(Plasmopara viticola)</i> Grey Mold <i>(Botrytis cinerea)</i> Leaf Spot <i>(Alternaria spp.)</i> <i>(Cercospora spp.)</i> <i>(Entomosporium spp.)</i> <i>(Myrothecium spp.)</i> <i>(Septoria spp.)</i> Powdery Mildew <i>(Erysiphe spp.)</i> <i>(Oidium spp.)</i> <i>(Podosphaera spp.)</i> <i>(Sphaerotheca spp.)</i> Rust <i>(Puccinia spp.)</i> Scab <i>(Venturia spp.)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively at the 4 - 6 leaf stage or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide. This product may be used to control certain diseases of container, bench, flat, plug, bed, or field-grown ornamentals in greenhouses, shade-houses, outdoor nurseries, retail nurseries, and other landscape areas.
	<i>Fusarium spp.</i> <i>Phytophthora spp.</i> <i>Pythium spp.</i> <i>Rhizoctonia spp.</i> <i>Verticillium spp.</i>	Plant Dip/ Soil Drench	0.15% v/v solution	For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.

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

The following plant species have been treated with **VACCIPLANT** to prevent disease.

Plants Investigated:

Annual and Perennial Flowering Plants

Begonias, Freesias, Geraniums, Gerbera, Impatiens, *Lamium*, Lisianthus, Petunias, Poinsettias, Roses, Salvias, Snapdragons, Zinnias.

Trees and Shrubs

Azalea, Boxwood, Crape Myrtle, Dogwood, Indian Hawthorne, Jumbo Azalea, Lilac, Loropetalum, Japanese Maple, Japanese Privet, *Photinia*, Rhododendron, *Rosaceae*, Soft Touch Holly, Spirea, *Viburnum*.

Tropical Foliage

Aglonema, *Dieffenbachia*, *Dracaena*, English Ivy, *Hibiscus*, Leatherleaf Fern, *Spathiphyllum*.

Since it is not possible to test all ornamental species or varieties grown in the greenhouse, test **VACCIPLANT** on a few plants prior to large-scale usage.

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Peanut*	Aspergillus Crown Rot (<i>Aspergillus niger</i>) Rhizoctonia Foliar Blight, Peg, and Root Rot (<i>Rhizoctonia solani</i>) White Mold (<i>Sclerotium rolfsii</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Pome Fruits* Apple Crabapple Loquat Oriental Pear Pear Quince Mayhaw and other pome fruit crops	Powdery Mildew (<i>Podosphaera leucotricha</i>) Alternaria Blotch (<i>Alternaria mali</i>) Apple Scab (<i>Venturia inaequalis</i>) Suppression only Bitter Rot (<i>Colletotrichum</i> spp.) Black Rot/Frogeye Leaf Spot (<i>Botryosphaeria obtusa</i>) Bot Rot (<i>Botryosphaeria dothidea</i>) Brooks Spot (<i>Mycosphaerella pomi</i>) Bull's Eye Rot (<i>Neofabraea</i> spp.) Cedar-Apple Rust (<i>Gymnosporangium juniperi-virginianae</i>) Suppression only Fire Blight (<i>Erwinia amylovora</i>) Suppression only Flyspeck (<i>Zygophiala jamaicensis</i>) Sooty Blotch (<i>Geastrum polystigma</i>) (<i>Leptodontium elatius</i>) (<i>Peltaster fructicola</i>) White Rot (<i>Botryosphaeria dothidea</i>)	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 10 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide. Fire Blight - Apply VACCIPLANT in the appropriate volume of water in combination with an appropriate registered bactericide from green bud stage to petal fall stage on one year old wood. After blooming period continue VACCIPLANT applications if disease conditions are favorable. Scab - After primary disease contamination, or in situations favorable for disease development, apply VACCIPLANT in the appropriate amount of water until conditions for development have subsided.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Root, Tuber and Corm Crops* Potato Beet Carrot Cassava Ginger Ginseng Horseradish Radish Sweet Potato Turnip and other root crops (including those for seed production)	Bacterial Leaf Blight <i>(Xanthomonas campestris)</i> Black Root Rot/Black Crown Rot <i>(Alternaria spp.)</i> Downy Mildew <i>(Peronospora spp.)</i> Early Blight <i>(Alternaria solani)</i> Grey Mold <i>(Botrytis spp.)</i> Late Blight <i>(Phytophthora infestans)</i> Powdery Mildew <i>(Erysiphe spp.)</i> White Mold <i>(Sclerotinia sclerotiorum)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Soybean*	Aerial Web Blight <i>(Rhizoctonia solani)</i> Alternaria Leaf Spot <i>(Alternaria spp.)</i> Anthracnose <i>(Colletotrichum truncatum)</i> Asian Soybean Rust <i>(Phakopsora pachyrhizi)</i> Brown Spot <i>(Septoria glycines)</i> Cercospora Blight <i>(Cercospora kikuchii)</i> Frog-eyed Leaf Spot <i>(Cercospora sojina)</i> Pod and Stem Blight <i>(Diaporthe spp.)</i> Septoria Brown Spot <i>(Septoria glycines)</i> White Mold <i>(Sclerotinia sclerotiorum)</i>	Foliar	14 fl oz - 22 fl oz	To optimize disease control and maximize yields, apply VACCIPLANT prior to flowering. Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Reapply every 7 - 14 days. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Stone Fruits* Apricot Cherry (Sweet and Tart) Nectarine Peach Plum Plumcot Prune and other stone fruit crops	Alternaria Spot/Fruit Rot <i>(Alternaria alternata)</i> Anthracnose <i>(Colletotrichum spp.)</i> Bacterial Canker <i>(Pseudomonas spp.)</i> Bacterial Spot <i>(Xanthomonas pruni)</i> Brown Rot Blossom Blight <i>(Monilinia laxa)</i> Brown Rot Fruit Rot <i>(Monilinia fructicola)</i> Cercospora Leaf Spot <i>(Cercospora spp.)</i> Cherry Leaf Spot <i>(Blumeriella jaapii)</i> Grey Mold <i>(Botrytis cinerea)</i> Powdery Mildew <i>(Podosphaera spp.)</i> <i>(Sphaerotheca pannosa)</i> Rust <i>(Tranzschelia discolor)</i> Rusty Spot <i>(Podosphaera leucotricha)</i> Scab <i>(Cladosporium carpophilum)</i> Shot Hole <i>(Wilsonomyces carpophilus)</i>	Foliar	14 fl oz - 60 fl oz	<p>Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v.</p> <p>Repeat applications at 7 - 14 day intervals.</p> <p>Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p> <p>Bacterial Blight - Apply VACCIPLANT in the appropriate volume of water. Begin applications pre-harvest before fall rains.</p> <p>Brown Rot Blossom Blight - Apply VACCIPLANT in appropriate volume of water. Begin applications at early bloom and repeat through petal fall on a 7 - 10 day interval.</p> <p>Powdery Mildew - Apply VACCIPLANT in appropriate volume of water. Begin applications at popcorn stage and continue as needed on a 7 - 10 day interval.</p> <p>Scab - Apply VACCIPLANT in appropriate volume of water. Begin applications at petal fall and continue on a 7 - 10 day interval until conditions favorable for disease development have diminished.</p> <p>For all other diseases - Begin applications when conditions favorable for disease development are present. Apply VACCIPLANT in the appropriate volume of water on a 7 - 14 day interval.</p> <p>For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution.</p> <p>Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.</p>
<p>VACCIPLANT has a pre-harvest interval (PHI) of 0 days.</p> <p>Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.</p>				

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Strawberry*	Anthracnose <i>(Colletotrichum spp.)</i> Suppression only Botrytis <i>(Botrytis cinerea)</i> Leaf Spot <i>(Mycosphaerella fragariae)</i> Phomopsis Leaf Blight <i>(Phomopsis obscurans)</i> Powdery Mildew <i>(Sphaerotheca macularis)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively immediately after transplant or prior to bloom. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
	Black Root Rot <i>(Rhizoctonia spp.)</i> <i>(Pythium spp.)</i> <i>(Fusarium spp.)</i> <i>(Cylindrocarpon spp.)</i> Phytophthora Root Rot and Crown Rot <i>(Phytophthora spp.)</i> Verticillium Wilt <i>(Verticillium spp.)</i> <i>Fusarium spp.</i> <i>Pythium spp.</i> <i>Rhizoctonia spp.</i>	Plant Dip/ Soil Drench	0.15% v/v solution	For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Sugarcane*	Brown Rust <i>(Puccinia melanocephala)</i> Orange Rust <i>(Puccinia kuehnii)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Tobacco*	Blue Mold (<i>Peronospora tabacina</i>)	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 70 gallons per acre apply VACCIPLANT at 14 fl oz per acre. At water volumes above 70 gallons per acre apply VACCIPLANT at 0.15% v/v. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.
	<i>Fusarium</i> spp. <i>Phytophthora</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia</i> spp. <i>Verticillium</i> spp.	Plant Dip/ Soil Drench	0.15% v/v solution	For plant dip and soil drench applications, apply this product in a 0.15% v/v solution (15 fl oz of product per 100 gallons water) as a pre-plant dip or soil drench immediately prior to transplanting.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Tree Nut Crops* Walnut (Black and English) Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert Hickory Nut Macadamia Nut Pecan Pistachio and other tree nut crops	Walnut Blight (<i>Xanthomonas campestris</i>) Alternaria Late Blight, Alternaria Leaf Spot (<i>Alternaria</i> spp.) Anthracnose (<i>Colletotrichum</i> spp.) (<i>Gnomonia leptostyla</i>) Bacterial Canker (<i>Erwinia nigrifluens</i>) (<i>Pseudomonas syringae</i>) Botryosphaeria Blight (<i>Botryosphaeria dothidea</i>) Brown Rot (<i>Monilinia</i> spp.) Eastern Filbert Blight (<i>Anisogramma anomala</i>) Green Fruit Rot (<i>Botrytis cinerea</i>) Leaf Rust (<i>Tranzschelia discolor</i>) Scab (<i>Cladosporium carpophilum</i>) (<i>Sphaceloma perseae</i>) Shot Hole (<i>Wilsonomyces carpophilus</i>)	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Tropical Fruits* Avocado Banana Kiwi Mango Papaya Plantain Pineapple Pomegranate and other tropical fruit crops	Anthracnose <i>(Colletotrichum gloeosporioides)</i> Bacterial Blight <i>(Pseudomonas syringae)</i> <i>(Pseudomonas viridiflava)</i> Bacterial Canker <i>(Xanthomonas campestris)</i> Botrytis Fruit Rot <i>(Botrytis cinerea)</i> Scab <i>(Elsinoe mangiferae)</i> Sigatoka <i>(Mycosphaerella fijiensis)</i>	Foliar	14 fl oz - 60 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

Crop	Target Disease	Application Method	Product Use Rate per Application/acre	Application Instructions
Cool Season Turf Grasses* Warm Season Grasses*	Anthracnose <i>(Colletotrichum graminicola)</i> Bentgrass Dead Spot <i>(Ophiosphaerella agrostis)</i> Bermudagrass Decline <i>(Gaeumannomyces graminis var. graminis)</i> Dollar Spot <i>(Sclerotinia homoeocarpa)</i> Suppression only Fairy Ring <i>(various Basidiomycete fungi)</i> Grey Leaf Spot <i>(Pyricularia grisea)</i> Powdery Mildew <i>(Blumeria graminis)</i> Rust <i>(Puccinia spp., Uromyces spp.)</i> Yellow Tuft <i>(Downy Mildew)</i> <i>(Sclerophthora)</i>	Foliar	14 fl oz - 22 fl oz	Start VACCIPLANT applications preventatively or when conditions for disease development become favorable. At water volumes less than 100 gallons per acre apply VACCIPLANT at 14 fl oz per acre. For high water volume applications (100 - 400 gpa), mix VACCIPLANT in a 0.15% v/v solution. Repeat applications at 7 - 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another registered fungicide.

VACCIPLANT has a **pre-harvest interval (PHI)** of **0 days**.

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

* Not for use in California.

** Not for use in California except to control powdery mildew.

*** Not for use in California except on lettuce to control downy mildew.

INTEGRATED PEST MANAGEMENT (IPM)

Many conventional fungicides have been tested in an IPM regime with **VACCIPLANT** with very satisfactory results. One of the major objectives of IPM has been to reduce the probability of disease resistance development to a particular active ingredient. The alternate use of (1 - 2 sprays) followed by a conventional, registered fungicide (1 - 2 sprays) has been successfully used in many crops. In addition, the use of tank mixes with a conventional fungicide has also been successful. Follow label instructions of the particular registered product: Do not exceed amounts or treatment intervals on the label.

COMPATIBILITY

VACCIPLANT is compatible with many commonly used crop protection and crop production products, but has not been fully evaluated with all. Evaluate tank-mix compatibility prior to use. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Apply to a small area of the crop to ensure there are no phytotoxic effects. Contact your **VACCIPLANT** representative for additional details.

- **VACCIPLANT** acts early against specified plant diseases inducing plant defense reactions.
- **VACCIPLANT** induces systemic resistance, which allows protection during growth.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep container tightly closed when not in use.

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. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into the application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture or dispose of in a sanitary landfill, or by incineration. Do not burn unless allowed by state and local ordinances.

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 UPL NA Inc., and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer.

UPL NA Inc. 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 UPL NA Inc., and is subject to the inherent risks described above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC., 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 UPL NA INC. 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 UPL NA INC., MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT UPL NA INC.'S ELECTION, THE REPLACEMENT OF THE PRODUCT.

UPL, the UPL logo and VACCIPLANT are trademarks of a UPL Corporation Limited Group Company.

©2021 UPL Corporation Limited Group Company
ESL041615-9664-111921