

# ProPhyt®

**A systemic fungicide for the control of downy mildew, purple blotch, late blight, brown rot  
and root rot in vegetables, field crops, vineyards and orchards**

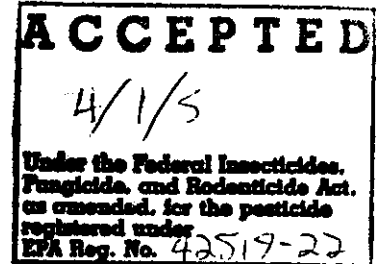
**ACTIVE INGREDIENT:**

Potassium Phosphite\* ..... 54.50%

**OTHER INGREDIENTS:** ..... 45.50%

**TOTAL** ..... 100.00%

\*Phosphorous acid equivalent: 34.30% (4.2 lbs/gal).



**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

FIRST AID	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical information.	
<b>See side panel for additional precautionary statements.</b>	

EPA Reg. No.: 42519-22  
EPA Est. No.: 42519-ISR-001

Net Contents: 1 or 2.5 gallons

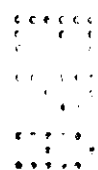
**Manufactured for:**  
**LUXEMBOURG – PAMOL, INC.**  
5100 Poplar Avenue, Suite 2700  
Memphis, Tennessee 38137, U.S.A.  
Phone: (901) 761-9475

Batch No. XXXX-XX

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FOR CHEMICAL SPILL, LEAK,  
FIRE OR EXPOSURE CALL  
**TOLL FREE: 1-800-424-9300**

**AGRICULTURAL CHEMICAL**  
DO NOT SHIP OR STORE WITH FOODS,  
FEEDS,  
DRUGS OR CLOTHING



(Back Panel)

**PRECAUTIONARY STATEMENTS**

**Hazard to humans and domestic animals:** Caution: Harmful if swallowed or if absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. Keep and wash PPE separately from other laundry.

**User Safety Recommendations:** Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 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:** For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwater or rinsate.

**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. 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.

**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 intervals (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 of 4 hours unless wearing appropriate PPE.

PPE requirement 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
- waterproof gloves
- shoes plus socks

## **Chemigation:**

### **General Chemigation Information**

1. Apply this product only through drip (trickle), microjet, center pivot, solid set, hand move, or moving wheel irrigation system that does not contain aluminum components. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. 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.
5. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
6. The pesticide supply tank should be equipped with a means for continuous agitation either recirculation or mechanical agitator. Fill the supply tank with the appropriate amount of water and add the ProPhyt<sup>®</sup> slowly followed by any other products that are compatible and labeled for chemigation. Observe all cautions and limitations on the label of all products used in the mixtures. For fixed position irrigation systems such as center pivot etc., the pesticide should be applied toward the end of the irrigation cycle. Exact timing will depend upon the desired ProPhyt<sup>®</sup> application rate and the calibration of the system. For moving systems, apply the ProPhyt<sup>®</sup> continuously. In all cases, maintain thorough coverage of the crop.

### **For Chemigation Systems Connected to Public Water Systems:**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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.

#### **For Drip (Trickle) Chemigation and Sprinkler Chemigation Systems:**

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **General Information:**

ProPhyt® is a systemic product, which contains phosphorous acid. Phosphorous acid is effective in prevention and control of downy mildew and *Phytophthora*, by activation of the plants' natural resistance mechanism, as well as by direct activity on the fungus. ProPhyt® is intended for use as part of an Integrated Pest Management (IPM) system. When used in conjunction with good cultural management practices and as part of a complete disease control program, ProPhyt® will control downy mildew, purple blotch, late blight, brown rot (of citrus) and root rot in field crops, vineyards and orchards. In order to achieve maximum

results in controlling the disease, spraying should be carried out before the appearance of the disease or when disease is first observed. Applications should be initiated when environmental conditions are favorable for disease development. The preharvest interval is 0 days for this product.

### **Mixing and Application Instructions:**

Apply in sufficient water to ensure thorough coverage. Fill spray tank halfway with clean water. Add the required amount of ProPhyt® to the tank as indicated in the table below. While agitating, add the remaining amount of water. Apply solution directly to foliage, unless directed otherwise in the application rate table. For optimum control, thorough coverage is required.

### **Compatibility:**

ProPhyt® is believed to be compatible with most commonly used pesticides. Consult specific product labels for additional information. It is always advisable to conduct a tank spray 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, and 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 products to the spray tank.

Use tank-mix combinations on a small number of plants before treating large areas, as crop sensitivity to these mixtures may vary.

ProPhyt® has been evaluated for phytotoxicity on a large variety of crops under various normal field conditions. However, testing all crop varieties, in all mixtures and combinations is not feasible. Test a small portion of the area to be treated for phytotoxicity, before treating the entire area. Do not apply ProPhyt® to plants under stress.

### **Application Rates:**

Begin spraying when environmental conditions are favorable for the development of disease or as indicated below. Do not apply more than the following application rates. Unless specified, there is no limit to the number of applications.

Crop	Disease	Rate/Acre	Remarks
Asparagus*	Spear Slime and Crown Rot caused by <i>Phytophthora</i>	2-4 pints	Apply ProPhyt® to fully expanded asparagus ferns using sufficient water for thorough coverage. Do not apply to ferns once they begin

Crop	Disease	Rate/Acre	Remarks
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Avocado	Root rot ( <i>Phytophthora</i> <i>a</i> )	4 pints	Make four preventive foliar applications with spray volumes of 125-300 gal/acre: twice (at 10 to 14 day intervals) in each of two root growth seasons (usually May and July). Avoid applying during period of foliar growth.
Blueberry*	Phytophthora root rot ( <i>Phytophthora</i> <i>a</i> spp.)	4 pints	Begin foliar applications at pink bud stage in the spring, and continue on a 14 to 21 day interval in a minimum of 50 gallons of water per acre.
	Alternaria fruit rot ( <i>Alternaria</i> <i>tenuissima</i> ) Septoria leaf spot Anthracnose	4 pints	Use cover and post-harvest sprays on a 14 day interval for suppression. Use sufficient water to obtain thorough coverage.
Brassica vegetables, such as: Broccoli, cabbage, cauliflower	Downy mildew	2-4 <sup>1</sup> pints	Make preventive foliar applications at 7 to 10 day intervals. Use sufficient water to obtain adequate coverage.
Bulb vegetables, such as: Garlic, onion, shallot	Downy mildew ( <i>Peronospora destructor</i> ) Purple Blotch ( <i>Alternaria porri</i> )	4 pints	Apply preventatively in 20-50 gallons of water per acre. Continue applications on a 7-14 day interval. Do not exceed 7 applications per crop season.

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Crop	Disease	Rate/Acre	Remarks
Citrus, such as: Grapefruit, kumquat, lemon, lime, orange	Brown rot ( <i>Phytophthora</i> <i>a</i> )	4 pints	Make preventive foliar applications during spring and fall. Spray to wetness (about 100-250 gal/acre).
	Root rot ( <i>Phytophthora</i> <i>a</i> )	4 pints	Make preventive foliar applications when conditions favor disease development, usually three times annually (March-April, May-June, and Sept.-Oct.). Spray to wetness (about 100-250 gal/acre).
	Brown spot* ( <i>Alternaria</i> <i>alternata</i> )	2-4 pints	Begin foliar application starting on the spring flush, at petal fall and then maintain spraying on a 2 week interval until the fruit are 3 months old, or until conditions are no longer conducive for the disease.
Citrus seedlings	Root rot ( <i>Phytophthora</i> <i>a</i> )	2 gal per 100 gal (2%)	Make drench of ½ pint solution per seedling in a 2 gallon soil sleeve or pot, every two months during the season the seedlings are actively growing. Application can be made through drip irrigation system. Do not apply before or after drastic pruning. Do not combine with other products.
Caneberries Sub-Group*, such as: Blackberry, boysenberry, loganberry, red and black raspberry	Phytophthora root rot	4 pints	Apply as a foliar spray after bud break (1-3 inches new growth) and repeat 3 to 4 weeks later. Two additional applications may be made in the fall west of the Rocky Mountains when conditions favor the disease. Do not apply more than 4 sprays per season using a minimum of 50 gallons per acre.

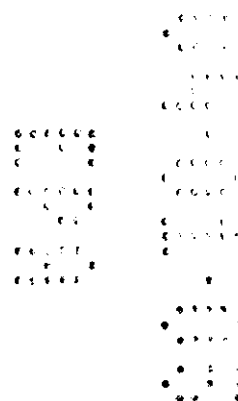
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Crop	Disease	Rate/Acre	Remarks
Cucurbits, such as: Cucumber, melon, pumpkin, squash (in open field and under coverage)	Downy mildew	2-4 <sup>1</sup> pints	Make preventive foliar applications at one-week intervals with a spray volume of 40-100 gal/acre, depending on size of plants. Use sufficient water to obtain adequate coverage.
	<i>Phytophthora capsici</i>	See remarks	Drench application of 4 pints per 100 gallons water to transplants prior to transplanting or a 5 oz/1000 feet of row in furrow drench at planting followed by weekly foliar applications at 6 pints/acre beginning 2 weeks after planting will suppress this disease.
Fruiting vegetables, such as: Tomato, tomatillo	Late Blight ( <i>Phytophthora infestans</i> )	4 pints	Make preventive foliar applications starting no sooner than 6 weeks after seeding or immediately after transplanting. Apply at 5 to 10 day intervals. <sup>3</sup> Thorough coverage is required. Best applied with a protectant such as Mancozeb or Chlorothalonil.
Pepper	<i>Phytophthora capsici</i>	6 pints	Drench application of 4 pints per 100 gallons water to transplants prior to transplanting or a 5 oz/1000 feet of row in-furrow drench at planting followed by weekly foliar applications at 6 pints/acre beginning 2 weeks after planting will suppress this disease.
Ginseng*	Phytophthora foliar and root rot ( <i>Phytophthora cactorum</i> )	4 pints	Make applications in 100 gallons of water per acre beginning in the spring when conditions first become conducive to the disease. Repeat applications on a 7-

Crop	Disease	Rate/Acre	Remarks
			day interval as long as conditions remain favorable for the disease. Do not apply more than 9 sprays a season.
<b>Grapes, such as:</b> Carignane, French Colombard, Cabernet Sauvignon, Superior, Thompson, Parlet	Downy mildew	2-4 <sup>1</sup> pints	For prevention of downy mildew. During the sensitive period, spray before the appearance of the disease, every 7-10 days with a spray volume of 50 gpa pre-bloom and 100 gpa post-bloom. <sup>3</sup> Use sufficient volume to obtain adequate coverage. Don't exceed spray solution concentration of 0.4%
<b>Hops*</b>	Downy Mildew ( <i>Pseudoperonospora humuli</i> )	2-4 pints	Make applications at the first evidence of foliar infection using the following schedule 1) when shoots are 6-12 inches high, 2) after training when vines are 5-6 feet tall, 3) approximately 3 weeks after the second application, and 4) during bloom. Use sufficient water to insure complete coverage of the foliage.
<b>Leafy vegetables, such as:</b> Lettuce, spinach	Downy mildew	2-4 <sup>1</sup> pints	Make preventive foliar applications at 7 to 10 day intervals with a minimum spray volume of 10-30 gal/acre. <sup>3</sup> Begin spraying at 2 to 4 leaf stage of growth.
<b>Legume vegetables* such as:</b> Lima beans	Downy mildew ( <i>Phytophthora phaseoli</i> )	4 pints	Start applications at flowering using at least 30 gallons of water. Repeat on a 7-day interval while conditions are favorable for the disease
<b>Pineapple*</b>	Heart rot	Preplant Dip use 2	Apply foliar sprays when

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Crop	Disease	Rate/Acre	Remarks
	( <i>Phytophthora parasitica</i> )	pints per 100 gallons per acre of slips. On established plantings use 3 pints per acre.	conditions are conducive for disease development, or are forecast. Continue applications on a 3-month interval. Use sufficient water to insure complete coverage.
Pome Fruit*, such as: Apple, pear	Collar and Foot rot ( <i>Phytophthora spp.</i> )	2-4 pints	Apply in 100 gallons of water per acre (thorough spray coverage is required) when conditions favor disease development, and continue on a 30-60 day interval. Use the low rate on the shorter interval, and the high rate on the longer interval.
	Alternaria blotch Pear black spot	4-6 pints	Add to the petal fall and cover sprays with Captan 50 WP at 2 lbs/acre on a 10-14 day interval.
Potato	Late blight ( <i>Phytophthora infestans</i> )	4 pints	Make preventive foliar applications starting no sooner than 6 weeks after seeding. Apply at 5 to 10 day intervals. <sup>3</sup> Thorough coverage is required. Best applied with a protectant such as Mancozeb or Chlorothalonil.



Crop	Disease	Rate/Acre	Remarks
	Storage rot diseases	4-10 pints + mefanoxam 11.6-13 fl. oz.	Suppression of Pink rot ( <i>Phytophthora erythrocephala</i> ) and Pythium Leak ( <i>Pythium spp.</i> ) Apply as a band at planting directly over the seed pieces prior to row closure in a minimum of 3 gallons of water per acre. Additional in season applications of ProPhyt® + mefanoxam may be necessary when disease conditions are severe, disease was present in a previous potato crop, or a susceptible or moderately susceptible variety is being grown.
	Post Harvest	13 fl. oz. in half a gallon of water sprayed on a ton of tubers	For suppression of late blight ( <i>Phytophthora infestans</i> ) and pink rot ( <i>Phytophthora erythrocephala</i> )
Strawberry*	Red Stele ( <i>Phytophthora fragariae</i> )	2 pints per 100 gallons of water as a pre-plant dip. 2-4 pints per acre as a foliar spray.	Apply for 15-30 minutes as a pre-plant dip to the roots and crowns. Plant within 24 hours of dipping. Annual Planting: Begin foliar applications 2-3 weeks after planting and repeat on a 30-60 day interval while the weather is conducive to the disease. Perennial Planting: Begin applications in the spring when the plants start growing actively. Repeat applications on a 30-60 day interval if the weather is conducive to the disease. Use the shorter interval and higher use rate on the susceptible varieties, or under heavy disease pressure.
	Leather rot ( <i>Phytophthora cactorum</i> )	2-4 pints	Begin applications at 10% bloom; continue spraying on a 7-14 day interval through fruit set while conditions are favorable for disease. Use the

Crop	Disease	Rate/Acre	Remarks
			high rate and shortest interval under heavy disease pressure.
<b>Stone Fruit*, such as:</b> Peaches	Collar and Root rot ( <i>Phytophthora</i> spp.)	2 pints	Apply in the spring when conditions are conducive to the disease. Use 100 gallons per acre and repeat on a 60-day interval as necessary. Do not make more than 4 sprays per year.
<b>Turf Grass on Sod Farms*</b>	<i>Pythium</i>	6 fl. oz. per 1000 sq. ft. at 14-day intervals	Begin preventative applications when conditions first favor disease. Repeat at recommended interval. Do not mow or water treated areas until foliage is completely dry.
	Yellow Tuft	12 fl. oz. per 1000 sq. ft. at 21-day intervals	

\*Not for use in California

**Notes:**

- 1 Use higher rate when conditions favor disease development and/or with increased disease pressure.
- 2 Use a low spray volume, so that the material does not wash off or drip to the ground.
- 3 For prevention of downy mildew and late blight in bulb, fruiting and leafy vegetables, and grapes, it is recommended to combine ProPhyt<sup>®</sup> treatment with additional protective products, specifically with dithiocarbamates, by tank-mix or by alternating treatments.

**Important:**

Do not apply on plants when they are under water stress, or during severe weather conditions such as high or very low temperatures.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in a dry, cool place.

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

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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**Warranty Limitations and Disclaimer**

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Luxembourg warrants that at the time of delivery, the product will conform to its chemical description on the label, that it will pass without objection in the trade under the contract description, that seller will convey good title thereto, and that such product will be delivered free from any lawful security interest, lien or encumbrance.

This is the only warranty made on this product. Luxembourg EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND, EXCEPT AS SET FORTH IN THE ABOVE PARAGRAPH, ANY OTHER EXPRESS OR IMPLIED WARRANTIES. Buyer acknowledges the use of its own independent skill and expertise in the selection and use of the product and does not rely on any oral or written statements or representations.

