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# 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 | |
|---|---|
| **If swallowed** | • Call poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>• Call a poison control center or doctor for treatment advice. |
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15 – 20 minutes.<br>• Call a poison control center or doctor for treatment advice. |

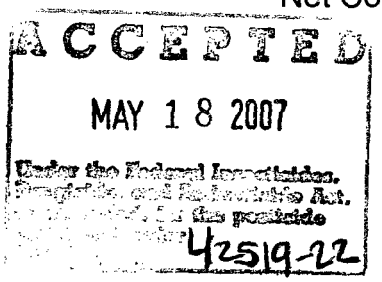
**HOT LINE NUMBER**

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.

**See side panel for additional precautionary statements.**

EPA Reg. No.: 42519-22
EPA Est. No.: 42519-ISR-001
**Manufactured for:**
**LUXEMBOURG – PAMOL, INC.**
**5100 Poplar Avenue, Suite 2700**
**Memphis, Tennessee 38137, U.S.A.**
**Customer Service (713) 661-8800**
Batch No. XXXX-XX

Net Contents: 1 or 2.5 gallons




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® 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® application rate and the calibration of the system. For moving systems, apply the ProPhyt® 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 dosed, 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.

**Important:**
Do not apply on plants when they are under water stress, or during severe weather conditions such as high or very low temperatures. Begin spraying when environmental conditions are favorable for the development of disease or as indicated below.

**Application Rates:**

Do not apply more than the following application rates. Unless specified, there is no limit to the number of applications.

| Crop | Disease | Rate | Remarks |
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| **Asparagus*** | Spear Slime and Crown Rot caused by *Phytophthora* spp. | 2-4[1] pints/A | Apply ProPhyt® to fully expanded asparagus ferns using sufficient water for thorough coverage. Do not apply to ferns once they begin to senesce. |
| **Avocado** | Root rot *(Phytophthora)* | 4 pints/A | Make four preventive foliar applications with spray volumes of 125-300 gpa: 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. |

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| **Blueberry*** | Phytophthora and Pythium root rot. | 4 pints/A | Begin foliar applications at pink bud stage in the spring, and continue on a 14 to 21 day interval in a minimum of 50 gpa. |
| | Alternaria fruit rot (*Alternaria tenuissima)* Septoria leaf spot Anthracnose | 4 pints/A | 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[1] pints/A | 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 (*Peronospora destructor*) Purple Blotch (*Alternaria porri*) | 4 pints/A | Apply preventatively in 20-50 gpa[2]. Continue applications on a 7-14 day interval. Do not exceed 7 applications per crop season. |
| **Caneberries Sub-Group*,** such as blackberry, boysenberry, loganberry, red and black raspberry | Phytophthora root rot | 4 pints/A | 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 gpa. |

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| **Citrus,** such as grapefruit, kumquat, lemon, lime, orange | Brown rot *(Phytophthora)* | 4 pints/A | Make preventive foliar applications during spring and fall. Spray to wetness (about 100-250 gpa). |
| | Root rot *(Phytophthora)* | 4 pints/A | 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 gpa). |
| | Brown spot* (*Alternaria alternata*) | 2-4[1] pints/A | 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 *(Phytophthora)* | 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. |
| **Conifers*** | *Phytophthora Pythium* spp. | Preplant dip: 4 pints/100 gal | Plants such as Douglas fir, spruce and pines. Thoroughly wet plant and root mass. |
| | | Foliar application: 2-4[1] pints/100 gal | Spray to wet using no more than 400 gpa. Begin applications in the spring before growth starts. Do not apply more than once every 30 days. |

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| **Cranberries** | Phytophthora Root Rot (*Phytophthora* spp.) | 5-8[1] pints/A | Apply as a ground or aerial foliar spray when conditions become favorable for disease development. Usually, three applications are needed - May, July (post blooming) and late August. Do not apply in less than 20 gallons of water. Do not exceed 4 applications per year and NEVER apply to flooded fields. |
| **Cucurbits,** such as cucumber, melon, pumpkin, squash (in open field and under coverage) | Downy mildew | 2-4[1] pints/A | Make preventive foliar applications at one-week intervals with a spray volume of 40-100 gpa, depending on size of plants. Use sufficient water to obtain adequate coverage. |
| | *Phytophthora capsici* | See remarks | Drench application of 4 pints per 100 gallons water to transplants prior to transplanting or a 5 fl. 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 (*Phytophthora infestans)* | 4 pints/A | Make preventive foliar applications starting no sooner than 6 weeks after seeding or immediately after transplanting. Apply at 5 to 10 day intervals[3]. Thorough coverage is required. Best applied with a protectant such as Mancozeb or Chlorothalonil. |
| **Ginseng*** | Phytophthora foliar and root rot (*Phytophthora cactorum*) | 4 pints/A | Make applications in 100 gpa beginning in the spring when conditions first become conducive to the disease. Repeat applications on a 7-day interval as long as conditions remain favorable for the disease. Do not apply more than 9 sprays a season. |

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| **Grapes,** such as Carignane, French Colombard, Cabernet Sauvignon, Superior, Thompson, Parlet | Downy mildew Phomopsis | 2-4[1] pints/A | Prebloom, apply 40-50 gpa, postbloom apply 50-100 gpa. Spray preventatively to control downy mildew. Key to controlling Phomopsis is a season long spray program on a 7-10 day interval starting at the 1-3 inch shoot stage. Do not exceed spray solution concentration of 0.6%. |
| **Hops*** | Downy Mildew (*Pseudoperonospora humuli*) | 2-4[1] pints/A | 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. |
| **Leafy vegetables,** such as lettuce, spinach | Downy mildew | 2-4[1] pints/A | Make preventive foliar applications at 7 to 10 day intervals with a minimum spray volume of 10-30 gpa[3]. Begin spraying at 2 to 4 leaf stage of growth. |
| Spinach | White Rust | 3-4[1] pints/A | Best applied in combination with Kocide 2000 at 1.5 lbs/A in alternation with Amistar. |
| **Legume vegetables*** such as Lima beans | Downy mildew (*Phytophthora phaseoli*) | 4 pints/A | Start applications at flowering using at least 30 gallons of water. Repeat on a 7-day interval while conditions are favorable for the disease. |
| **Pepper*** | *Phytophthora capsici* | 6 pints/A | Drench application of 4 pints per 100 gallons water to transplants prior to transplanting or a 5 fl. oz/1000 feet of row in-furrow drench at planting followed by weekly foliar applications at 6 pints/acre beginning 2 weeks |

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| | | | after planting will suppress this disease. |
| **Pineapple*** | Heart rot (*Phythophthora parasitica*) | Preplant dip: See remarks | Use 2 pints per 100 gallons per acre of slips |
| | | Established plantings: 3 pints/A | Apply foliar sprays when conditions are conducive for disease development, or are forecast. Continue applications on a three month interval. Use sufficient water to insure complete coverage. |
| **Pome Fruit***, such as apple, pear | Collar and Foot rot (*Phytophthora spp.*) | 2-4[1] pints/A | Apply in 100 gpa (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. |
| Apple | Summer diseases (including *Alternaria blotch*, sooty blotch, fly speck and black pox) | 4-6[1] pints/A | Use a combination of ProPhyt® 4 pints plus Captan 50 WP at 6 lbs/a, in the second and later cover sprays, use a 10 to 14 day interval. (Observe all restrictions on the Captan label). |
| **Potato,** pre-harvest | Late blight (*Phytophthora infestans)* | 4 pints/A | Make preventive foliar applications starting no sooner than 6 weeks after seeding. Apply at 5 to 10 day intervals.[3] Thorough coverage is required. Best applied with a protectant such as Mancozeb or Chlorothalonil. |

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| | Storage rot diseases: Pink rot (*Phytophthora erythroceptica*) Late blight tuber rot (*Phytophthora infestans*) and Pythium leak (*Pythium spp.*) | 4-10[1] pints/A + mefanoxam 11.6-13 fl. oz./A | Suppression of Pink rot, Late blight tuber rot and Pythium Leak. Apply as a band at planting directly over the seed pieces prior to row closure in a minimum of 3 gpa. 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. |
| **Potato,** post-harvest | Late blight tuber rot (*Phytophthora infestans*) and Pink rot (*Phytophthora erythroceptica*) | 13 fl. oz. in half a gallon of water sprayed on a ton of tubers | For suppression of Late blight tuber rot and Pink rot |
| **Stone Fruit*,** such as peaches | Collar and Root rot (*Phytophthora spp.*) | 2 pints/A | Apply in the spring when conditions are conducive to the disease. Use 100 gpa and repeat on a 60-day interval as necessary. Do not make more than 4 sprays per year. |

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| **Strawberry*** | Red Stele (*Phytophthora fragariae*) | Preplant dip: 2 pints per 100 gallons of water | Apply for 15-30 minutes as a pre-plant dip to the roots and crowns. Plant within 24 hours of dipping. |
| | | Foliar spray: 2-4[1] pints/A | 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 (*Phytophthora cactorum*) | 2-4[1] pints/A | Begin applications at 10% bloom; continue spraying on a 7-14 day interval through fruit set while conditions are favorable for disease. |
| **Turf Grass on Sod Farms*** | Pythium | 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 | |

**Notes:**

* Not for use in California

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® treatment with additional protective products, specifically with dithiocarbamates, by tank-mix or by alternating treatments.

**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.

**Warranty Limitations and Disclaimer**

To the fullest extent permitted by law, 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 assumes all risk of use of this material when such use is contrary to label instructions. Read and follow the label directions carefully.

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