



# PENNCOZEB<sup>®</sup> 80WP

FUNGICIDE

**An 80% Coordination Product of Manganese and Zinc and Ethylenebisdithiocarbamate**

**ACTIVE INGREDIENT:**

Mancozeb: A coordination product of zinc ion and manganese ethylene bisdithiocarbamate .....	80.0%
Manganese++ .....	16.0%
Zinc++ .....	2.0%
Ethylenebisdithiocarbamate ion (C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> S <sub>4</sub> ) .....	62.0%

**OTHER INGREDIENTS:** .....

**TOTAL:** ..... 100.0%

EPA Reg. No. 70506-183

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

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

**FIRST AID**

<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>
<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 the eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a 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 the poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call the Rocky Mountain Poison Control Center at 1-866-673-6671.

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



**NET WEIGHT: \_\_\_\_\_ POUNDS**



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are natural rubber and polyethylene. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

#### Mixers, Loaders, Applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks

In addition to the PPE listed above, all handlers (except pilots, groundboom applicators, airblast applicators, and seed-treatment handlers who are bagging treated seed or sewing bags containing treated seed) must also wear:

- Chemical-resistant gloves
- NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P or HE filter.

See engineering controls for additional requirements.

### ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers. Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (6)].

Large scale Seed-Piece treatment facilities that, on any given week in the current year or in the past year, treated  $\geq 50,000$  cwt ( $\geq 2,500$  tons) must use a dust collection system during the treatment of the Seed-Pieces that prevents dust from contacting handlers or other persons.

Handlers using the dust collection system must wear:

- Long-sleeved shirt and long pants
- Shoes and socks and
- Chemical-resistant gloves (except pilots, groundboom applicators, and airblast applicators); and
- Must be provided with, have immediately available, and wear in an emergency, such as a broken package, spill, or equipment breakdown: a NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark, except as specified for the labeled use on cranberries. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

### CHEMICAL HAZARDS

Do not allow to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of the product as a fungicide and create vapors which may be flammable. Keep container closed when not in use.

### DIRECTIONS FOR USE

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

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

### PRODUCT INFORMATION

PENNCOZEB 80WP is a wettable powder containing a coordination product of zinc ion and manganese ethylenebisdithiocarbamate, and is labeled for use as a spray for the control of many important plant diseases.

PENNCOZEB 80WP also may be used for manufacturing, repackaging, or formulation of other fungicides if the formulator, user group or grower has complied with U.S. EPA data submission requirements regarding the support of such uses.

### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

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

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Do not enter or allow others to enter treated areas until sprays have dried.

## INSTRUCTIONS FOR APPLICATION

Apply PENNCOZEB 80WP at the rate range indicated for the crop/disease in sufficient water for thorough coverage. For ground applications, apply in a minimum of 10 gallons per acre for field/row crops and 20 gallons per acre for orchard/tree and vine crops. For aerial applications, apply in a minimum of 2 gallons per acre for field/row crops and 10 gallons per acre for orchard/tree and vine crops.

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers. Use a Spreader Sticker at rate of 4 fl. oz. per 100 gallons spray if needed. Add product slowly to water in the spray tank with agitation, or premix thoroughly in separate holding tank for concentrate or aircraft sprayers. Continuous agitation is required to keep the product in suspension.

When dosage ranges are given, use the higher rate and shorter intervals under severe disease pressure, but do not exceed the maximum rate or apply more frequently than the minimum retreatment interval given in the directions for that crop.

### MAXIMUM SEASONAL POUNDAGE WHEN USED IN CONJUNCTION WITH ONE OR MORE OTHER EBDC PRODUCTS

#### FOLIAR APPLICATIONS

##### Where EBDC Products Used Allow The Same Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient (maneb, mancozeb, or metiram) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any one of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

##### Where EBDC Products Used Allow Different Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

#### SEED TREATMENT

In addition to the maximum number of foliar applications permitted by the formula stated above, a single application for seed treatment may be made on crops which have registered seed treatment uses.

#### FIELD CROPS

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
Barley	Please refer to Wheat, below.		
Field Corn, and Corn Grown for Seed	Common Rust Gray Leaf Spot Helminthosporium Leaf Blight	1.0-1.5 lbs.	Start application at the onset of disease and repeat as needed. Do not apply more than 12 lbs. active ingredient per season (15 lbs. product). Do not apply within 40 days of harvest.
Oats	Please refer to Wheat, below.		
Peanuts	Cercospora Leaf Spot Rust	1.0-2.0 lbs.	Begin applications when disease first appears and repeat at 7-14 day intervals, using shorter interval under severe disease pressure. Do not feed treated vines to livestock. Do not use more than 12.8 lbs. active ingredient (16 lbs. product) per acre per season. Do not apply within 14 days of harvest.
Peanuts (tank-mix with Topsin M)	Ascochyta Web Blotch Cercospora Leaf Spot Limb Rot Rust	1.5 lbs. PENNCOZEB 80WP plus 0.35 lb. a.i. Topsin® M	Begin applications when disease first appears and repeat at 7-14 day intervals, using shorter interval during humid weather. Do not feed treated vines to livestock. Do not use more than 16 lbs. PENNCOZEB 80WP per acre per season. Do not apply within 14 days of harvest.
Rye	Please refer to Wheat, below.		
Sugar Beets	Cercospora Leaf Spot Rust	1.5-2.0 lbs.	Begin applications when disease first threatens and repeat at 7-10 day intervals. Do not apply more than 11.2 lbs. active ingredient (14 lbs. product) per acre per season. Do not apply within 14 days of harvest.
Triticale	Please refer to Wheat, below.		
Wheat (including triticale), Barley, Oats, Rye	Helminthosporium Leaf Spot Leaf Rust Scab (Head Blight)* Septoria Glume Blotch Septoria Leaf Spot Tan Spot	1.0-2.0 lbs.	Start application at onset of disease or when plants are in tillering to jointing stage and repeat at 7-10 day intervals. Do not make more than 3 applications in one season. Do not apply more than 4.8 lbs. active ingredient (6.0 lbs. product) per acre per crop. Do not apply within 26 days of harvest (46 days pre-harvest interval in California). Do not graze livestock in treated areas prior to harvest. Do not apply past Feekes Growth Stage 10.5 (typically 35-45 days), but no less than 26 days.

\*In California - scab control on wheat only.

## VEGETABLE CROPS

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
Asparagus	Cercospora Leaf Spot Rust	2.0 lbs.	Begin applications when rust first appears and repeat at 10 day intervals as needed. Use only on ferns after spears have been harvested. Do not apply more than 6.4 lbs. active ingredient (8 lbs. product) per acre per season. Do not apply within 180 days of harvest. (In California and Arizona, the PHI is 120 days).
Broccoli	Alternaria Leaf Spot Downy Mildew	1.5-2.0 lbs.	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7-10 day intervals, if needed. Use higher rates when conditions favor disease. Do not apply more than 12 lbs. product (9.6 lbs. active ingredient) per acre per season. Minimum retreatment interval is 7 days. Minimum preharvest interval is 7 days. Do not apply this product with a U-boom device.
Cabbage	Alternaria Leaf Spot Downy Mildew	1.5-2.0 lbs.	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7-10 day intervals, if needed. Use higher rates when conditions favor disease. Do not apply more than 12 lbs. product (9.6 lbs. active ingredient) per acre per season. Minimum retreatment interval is 7 days. Minimum preharvest interval is 7 days. Do not apply this product with a U-boom device.
Corn, sweet corn used for fresh and processing, popcorn, and sweet corn used for seed production, including hybrid seed	Common Rust Gray Leaf Spot Helminthosporium Leaf Blight	1.0-1.5 lbs.	<b>East of the Mississippi</b> (including Arkansas and Louisiana) Apply in sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4-7 day intervals. Do not apply within 7 days of harvest. Do not feed treated forage (plant stalk and leaves) to livestock. Do not apply more than 18 lbs. active ingredient (22.5 lbs. product) per acre per crop.
		1.0-1.5 lbs.	<b>West of the Mississippi</b> (except Arkansas and Louisiana) Apply in sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4-7 day intervals. Do not apply within 7 days of harvest. Do not feed treated forage (plant stalk and leaves) to livestock. Do not apply more than 6.0 lbs. active ingredient (7.5 lbs. product) per acre per crop.
Cucurbit Crop Group: Chayote Chinese waxgourd Citron melon Cucumber Gherkin Gourd, edible <i>Momordica</i> spp. Muskmelon Pumpkin Squash, summer Squash, winter Watermelon	Alternaria Leaf Spot Anthracnose Cercospora Leaf Spot Downy Mildew Gummy Stem Blight Scab	2.0-3.0 lbs.	Start applications when the plants are in the two-leaf stage and repeat at 7-10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces. For aerial applications, the minimum spray volume is 2 gallons per acre. Some cantaloupe varieties (i.e., Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to PENNCOZEB 80WP fungicide. Consult State Cooperative Extension Service Specialist prior to use. Do not apply more than 25.6 lbs. product (19.2 lbs. active ingredient) per acre per year. Do not apply more than 8 applications per year. Do not apply within 5 days of harvest.
Fennel	Early Blight Late Blight	1.5-2.0 lbs.	Apply when disease threatens. Make applications as needed on a 7-10 day interval. Do not use more than 12.8 lbs. active ingredient per season (16 lbs. product). Do not apply within 14 days of harvest.
Ginseng	Alternaria Blight	2.0 lbs.	Start applications when disease first threatens and repeat every 7-10 days as needed. In Wisconsin, apply with ground equipment and a minimum of 80 gallons of water per acre. Do not apply more than 24 lbs. product (18 lbs. active ingredient) per acre per year. Do not apply more than 12 applications per year. Do not apply within 30 days of harvest.

continued

**VEGETABLE CROPS *continued***

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
Lettuce (Head, Leaf)	Downy Mildew	1.5-2.0 lbs.	<p>Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7-10 day intervals, if needed. Use higher rates when conditions favor disease.</p> <p>Do not apply this product with a U-boom device.</p> <p>Remove residues from head lettuce by stripping and trimming.</p> <p>For all states: minimum retreatment interval is 7 days.</p> <p>In California, do not apply more than 8.5 lbs. product (6.4 lbs. active ingredient) per acre per crop and do not apply within 14 days of harvest.</p> <p>In states other than California, do not apply more than 12.8 lbs. product (9.6 lbs. active ingredient) per acre per crop and do not apply within 10 days of harvest.</p>
Melons including: cantaloupes, casabas, citron, crenshaws, honeydews, muskmelons, watermelons	Alternaria Leaf Spot Anthracnose Cercospora Leaf Spot Downy Mildew Gummy Stem Blight Scab	2.0-3.0 lbs.	<p>Start applications when the plants are in the two-leaf stage and repeat at 7-10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.</p> <p>Do not apply more than 19.2 lbs. active ingredient (24 lbs. product) per acre per season.</p> <p>Do not apply within 5 days of harvest.</p> <p>Some cantaloupe varieties (i.e., Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to PENNCOZEB 80WP fungicide. Consult State and Cooperative Extension Service Specialist prior to use.</p>
Onions (Dry Bulb) including garlic and shallots	Botrytis Leaf Blight Downy Mildew Neck Rot Purple Blotch Rust	2.0-3.0 lbs.	<p>Begin applications when diseases are first reported in the area. Repeat at 7 day intervals throughout the season. Do not apply within 7 days of harvest; do not apply to exposed bulbs. Do not apply more than 24.0 lbs. active ingredient (30 lbs. product) per acre per crop season. Do not allow spray or drift to contact bulbs after lifting from soil.</p>
Onions (Furrow Drench)	Damping Off Seed Rots Seedling Blights Smut	3.0 lbs.	<p>Apply as a furrow drench at time of planting onion seeds. Use 75-125 gallons of water per acre. Do not use more than 2.4 lbs. active ingredient (3.0 lbs. product) per 29,000 linear feet of row (18 inch spacing).</p> <p><b>Do not use in California.</b></p>
Pepper	Anthracnose Cercospora Leaf Spot (Frogeye Spot) Phytophthora Blight Ripe Rot	West of the Mississippi: 1.5-2.0 lbs.	<p>Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7-10 day intervals, if needed. Use higher rates when conditions favor disease.</p> <p>Do not apply more than 12 lbs. product (9.6 lbs. active ingredient) per acre per season.</p> <p>Minimum retreatment interval is 7 days. Minimum preharvest interval is 7 days.</p> <p>Do not apply this product with a U-boom device.</p>

*continued*

**VEGETABLE CROPS *continued***

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
Potato Seed-Piece Treatment	Fusarium Seed-Piece Decay Seedborne Common Scab		Dip whole or cut seed pieces in mixture of 1 1/4 lbs. of product per 50 gallons of water, drain and plant immediately. If seed pieces are to be held before planting, spread out to dry in a cool place. Do not use treated seed pieces for food or feed purposes.
Potatoes	Early Blight Late Blight	0.5-2.0 lbs.	Begin applications when plants are 4-6 inches high by applying 0.4-0.8 lbs. active ingredient (0.5-1.1 lbs. product) per acre. As the vines increase in size, apply 1.2-1.6 lbs active ingredient (1.6-2.1 lbs. product) per acre at 5-10 day intervals or 0.6-0.8 lbs. active ingredient (0.8-1.1 lbs. product) per acre at 3-5 day intervals. Do not apply more than 11.2 lbs. active ingredient (14 lbs. product) per acre per crop. Do not apply within 14 days of harvest (except in Connecticut, Delaware, Florida, Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin when a 3 day PHI is allowed). It is recommended that this product be used within an Integrated Pest Management Program. Vine kill should occur 14 days before harvest.
Tomatoes	Anthracnose Early Blight Gray Leaf Mold Gray Leaf Spot Late Blight Septoria Leaf Spot	0.75-3.0 lbs.	<b>East of the Mississippi</b> Begin applications when seedlings emerge or transplants are set. Repeat applications of 0.6-1.2 lbs. active ingredient per acre (0.75-1.5 lbs. product) at 3-7 day intervals, or 1.2-2.4 lbs. active ingredient per acre (1.5-3.0 lbs. product) at 7-10 day intervals throughout the season. Do not apply within 5 days of harvest. Do not apply more than 16.8 lbs. active ingredient (21 lbs. product) per acre per crop.
		0.75-2.0 lbs.	<b>West of the Mississippi</b> Begin applications when seedlings emerge or transplants are set. Repeat applications of 0.6-0.8 lbs. active ingredient per acre (0.75-1.0 lbs. product) at 3-7 day intervals, or 1.2-1.6 lbs. active ingredient per acre (1.5-2.0 lbs. product) at 7-10 day intervals throughout the season. Do not apply more than 6.4 lbs. active ingredient (8 lbs. product) per acre per season. Do not apply within 5 days of harvest.
	Bacterial Speck and Spot		Use a full rate of a fixed copper fungicide in a tank mix combination with a half to full rate of PENNCOZEB 80WP. Follow application intervals specified on the copper fungicide label.

## SEED TREATMENT – NOT FOR THIS USE IN CALIFORNIA

Seeds to be treated should be cleaned and well cured prior to treatment. PENNCOZEB 80WP must be applied to dry seed with conventional slurry or mist seed-treating equipment. For best results, the seed must be completely and uniformly covered with fungicide. For seed treatment, a dye must be added to PENNCOZEB 80WP which will impart an unnatural color to the seed.

Seeds/seed-pieces that have treated with this product that are then packaged or bagged for future use must contain the following labeling on the outside of the seed/seed-piece package or bag:

- “Seed treated with the fungicide Mancozeb. Do Not Use for Food, Feed, or Oil Purposes. Excess treated seed may be used for ethanol production only if (1) byproducts are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol byproducts that are used in agronomic practice.
- When opening this bag or loading/pouring the treated seed/seed pieces, wear long-sleeved shirt, long pants, shoes, socks, chemical resistant gloves, and a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.
- After the seeds/seed-pieces have been planted, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Exception: Once the seeds/seed pieces are planted in soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with the soil/media subsurface.”

CROPS	DISEASES CONTROLLED	RATE OF PENNCOZEB 80WP PER APPLICATION		REMARKS (Also refer to Directions for Use)
		OZ./BU.	OZ./100 LBS.	
Barley	Covered Smut Damping-off False Loose Smut Seed Rots Seedling Blights	1.3-2.0	2.7-4.2	For planter box treatment only.
Corn (field)	Damping-off Seed Rots Seedling Blights	1.5-3.0	2.7-5.4	
Cotton (acid delinted) (reginned)	Damping-off Seedling Blights		3.0	
	Damping-off Seedling Blights		6.0	
Flax	Damping-off Seed Rots Seedling Blights	2.0-4.0	3.6-7.1	
Oats	Damping-off Seed Rots Seedling Blights Smuts	1.3-2.0	4.0-6.3	For planter box treatment only.
Peanuts (shelled)	Damping-off Seed Rots Seedling Blights	2.0-4.0	8.0-16.0	
Rice	Damping-off Seed Rots Seedling Blights		2.0-4.0	Apply before, during and after soaking in water.
Rye	Bunt Damping-off Seed Rots Seedling Blights	1.3-2.0	2.3-3.6	For planter box treatment only.
Safflower	Seedborne Rust ( <i>Puccinia Carthami</i> )		2.0	
Sorghum	Covered Kernel Smut Damping-off Seed Rots Seedling Blights	1.5-2.5	2.7-4.5	
Tomatoes	Damping-off Seed Rots Seedling Blights		8.0	
Wheat	Bunt Damping-off Seed Rots Seedling Blights	1.3-2.0	2.2-3.3	For planter box treatment only.

## FRUIT CROPS

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
<p>FOR POME FRUITS</p> <p>Use either the "Pre-Bloom/Bloom Use" or "Extended Application" schedules. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES.</p>			
Apples, Crabapples, Pears, Quince	Fabraea Leaf Spot Flyspeck Rusts (including Cedar Apple) Scab Sooty Blotch	6.0 lbs.	PRE BLOOM/BLOOM USE: Begin applications at 1/4 to 1/2 inch green tip and continue on a 7-10 day application schedule through bloom. Do not apply more than 19.2 lbs. active ingredient (24 lbs. product) per acre per year.
		3.0 lbs.	EXTENDED APPLICATION OR TANK MIX: For implementation of IPM programs, applications based on tree-row volume or for use as a resistance management tool: begin applications at 1/4 to 1/2 inch green tip and continue applications on a 7-10 day schedule through the second cover spray. Do not apply more than 16.8 lbs. active ingredient (21 lbs. product) per acre per year. It is recommended that this product be used in an Integrated Pest Management Program.
	Restrictions	Do not apply within 77 days of harvest.	Apply in a minimum of 50 gallons of water per acre. Do not graze livestock in treated areas.
Bananas (including Plantains)	Sigatoka	2.0-3.0 lbs.	Apply when leaves first appear and repeat as needed on a 14-21 day interval. Do not apply more than 24 lbs. active ingredient (30 lbs. product) per acre per season. May be applied up to the day of harvest.
Cranberries	Fruit Rot	3.0-6.0 lbs.	Begin applications at early bloom and repeat at 7-10 day intervals. Do not apply within 30 days of harvest. Do not apply more than 14.4 lbs. active ingredient (18 lbs. product) per acre per season.
Grapes	Black Rot Bunch Rot Downy Mildew Phomopsis (Deadarm)	1.5-4.0 lbs.	<b>East of the Rocky Mountains</b> Apply when shoots are 1/2 to 1 1/2 inches long. Continue at 7-10 day intervals. Do not apply within 66 days of harvest. Do not apply more than 19.2 lbs. active ingredient (24 lbs. product) per acre per season.
		1.5-2.5 lbs.	<b>West of the Rocky Mountains</b> Apply when shoots are 1/2 to 1 1/2 inches long. Continue at 7-10 day intervals. Do not apply within 66 days of harvest. Do not apply more than 6.0 lbs. active ingredient (7.5 lbs. product). <b>California:</b> Do not apply after bloom. For late season control of black rot, deadarm, and downy mildew, the use of other approved fungicides is suggested.
Papayas	Anthracnose Black Spot Cercospora Phytophthora Fruit Rot	1.5-2.0 lbs.	Apply first when disease pressure threatens and continue on a 14-21 day interval. Do not apply more than 28 lbs. active ingredient (35 lbs. product) per acre per season. Applications can be made up to the day of harvest, not to exceed 14 applications per year.
Pears	Please refer to Apples, above.		
Plantains	Please refer to Bananas, above.		
Large Tropical Fruit: Canistel, Mamey Sapote, Mango, Sapodilla, Star Apple (caimito), White Sapote	Anthracnose Black Spot (Cercospora) Phytophthora Fruit Rot	2.0-2.5 lbs.	Start applications at flowering and continue at 14-21 day intervals. Direct spray to crown and blossom area. Use 20-100 gallons water per acre. Do not apply more than 37.3 lbs. product (28 lbs. active ingredient) per acre per year. Do not apply more than 14 applications per year. Applications may be made up to the day of harvest.
Small Tropical Fruit: Atemoya, Cherimoya, Custard Apple, Sugar Apple, Sweetsop	Anthracnose	2.0-2.5 lbs.	Begin applications at flowering and continue at a 7 day retreatment interval. Applications made with aerial equipment must be made in a minimum spray volume of 10 gallons per acre. Do not apply more than 35 lbs. product active (26.25 lbs. active ingredient) per acre per year. Do not apply more than 14 applications per year. Applications may be made up to the day of harvest.



## MISCELLANEOUS

CROPS	DISEASES	PRODUCT/ACRE	DIRECTIONS
Christmas Trees (Conifer) Not for this use in California.	Lophodermium Needle Cast Pine Gall Rust Scirrhia Brown Spot	2-4 lbs. per acre	Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at 14 day intervals as long as needed. Do not apply within 14 days of harvest.
Douglas Fir Not for this use in California.	Swiss Needle Cast		
Asparagus Crown (Planting Stock)	Crown Rot	1 lb. per 100 gallons	Place loosely packed crowns into burlap bag and soak, with gentle agitation, in the fungicide solution for 5 minutes. Remove bag, drain well, and plant crowns as soon as possible. A tank large enough to hold a single burlap bag will treat 2 bags of crowns. Clean dipping suspension should then be prepared in a clean tank. Pre-wash crowns to remove excess soil. <b>Do not use in California.</b>
Caprifig	Assorted molds Endosepsis (Fusarium)	1 lb. per 25 gallons	Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the fungicide suspension for a minimum of 15 minutes. Stir the fungicide suspension frequently to prevent settling out. Use fresh dipping solution after treating 4 or 5 batches of figs. After treatment, drain figs prior to placement in trees. <b>Do not use in California.</b>

## CHEMIGATION PRODUCT INSTRUCTIONS

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

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

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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.

Do not connect chemigation system to any public water system. Public water system means a system for the provision 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.

## SYSTEM REQUIREMENTS

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

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.

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.

## INSTRUCTIONS FOR SPRINKLER (OVERHEAD) IRRIGATION

Observe the requirements in the System Requirements section.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply PENNCOZEB 80WP only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off.

Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time.

Application of more than recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area.

Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

PENNCOZEB 80WP may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state.

## SPRAY PREPARATION

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

Prepare a suspension of PENNCOZEB 80WP in a mix tank. Fill the tank with 1/2 or 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of PENNCOZEB 80WP and then the remaining volume of water.

## APPLICATION INSTRUCTIONS

Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of PENNCOZEB 80WP into the irrigation water line so as to deliver the desired rate per acre. The suspension of PENNCOZEB 80WP should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

**NOTE:** When treatment with PENNCOZEB 80WP has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

## SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

### WIND SPEED

Do not apply at wind speeds greater than 15 mph.

### TEMPERATURE INVERSIONS

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

### OTHER STATE AND LOCAL REQUIREMENTS

Applicators must follow all state and local pesticide drift requirements regarding application of Mancozeb. Where states have more stringent regulations, they must be observed.

### EQUIPMENT

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

### AERIAL APPLICATIONS:

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

### GROUND BOOM APPLICATION:

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

## FLOWERS, FOLIAGE PLANTS, AND ORNAMENTALS

**NOT FOR RESIDENTIAL USE ON FRUIT TREES.**

**TREATED PLANTS MUST NOT BE USED FOR FOOD OR FEED PURPOSES.**

Plant sensitivities to PENNCOZEB 80WP have been found to be acceptable in specific genera and species listed on this label, however, phototoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to PENNCOZEB 80WP. Neither the manufacturer nor seller has determined whether or not PENNCOZEB 80WP can be safely used on ornamental or nursery plants not listed on this label. The user should determine if PENNCOZEB 80WP can be used safely prior to commercial use. In a small area, apply the labeled rates to the plants in question, i.e. bedding plants, foliage, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Use PENNCOZEB 80WP on container, bench or bed-grown ornamentals in greenhouses or outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping, and for control of fungal diseases of foliage, flowers and stems.

**Aerial Application:** For aerial applications made to field-planted ornamentals, apply 1 to 2 lbs. per acre; use a minimum of 10 gals. of spray per acre during aerial applications.

**Application of Dilute Sprays:** Apply as thorough coverage spray using 1 to 2 lbs. PENNCOZEB 80WP per acre or 1 to 2 lbs. per 100 gals. of water (1 1/2 to 3 tsp. per gal.). Begin application at first sign of disease and repeat at 7 to 10 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist. PENNCOZEB 80WP may be used alone or in combination with other fungicides as a maintenance spray. Use higher rate and shorter intervals during periods of excessive wetness and rapid plant growth.

PENNCOZEB 80WP is labeled for use on certain flower, foliage and ornamental plants listed in the table below for control of the following diseases and pathogens:

PLANT	PATHOGEN CONTROLLED
Abutilon	Alternaria, Cercospora, Cladosporium, Colletotrichum, Puccinia
Ageratum	Alternaria, Puccinia, Rhizoctonia, Sclerotium
Aglaonema	Alternaria
Almond, ornamental	Botrytis, Cladosporium, Coryneum, Gloeosporium, Monilinia
Andromeda	Exobasidium, Rhytisma, Venturia
Anthurium	Colletotrichum, Gloeosporium
Apple	Alternaria, Cephalosporium, Colletotrichum, Coryneum, Elsinoe, Fusarium, Gloeosporium, Gymnosporangium, Helminthosporium, Leptosphaeria, Monilinia, Monochaetia, Mycosphaerella, Pestalotia, Venturia
Arborvitae	Alternaria, Botrytis, Cercospora, Coryneum, Lophodermium, Mycosphaerella, Pestalotia
Ash	Cercospora, Cylindrosporium, Gloeosporium, Puccinia, Rhizoctonia, Sphaeropsis
Ash, Mountain	Gymnosporangium
Aster	Alternaria, Ascochyta, Botrytis, Colletotrichum, Fusarium, Phomopsis, Phyllosticta, Puccinia, Ramularia, Rhizoctonia, Septoria, Uromyces
Azalea	Alternaria, Botrytis, Cladosporium, Colletotrichum, Cylindrocladium, Ovulinia
Baby's Breath	Botrytis, Rhizoctonia
Basswood	Cercospora, Phyllosticta
Begonia	Botrytis, Cercospora, Gloeosporium, Rhizoctonia
Birch	Cylindrosporium, Gloeosporium, Glomerella, Melampsoridium, Taphrina
Bougainvillea	Colletotrichum
Boxwood	Fusarium, Volutella
Buckeye	Cercospora, Glomerella, Guignardia, Monochaetia, Phyllosticta, Septoria, Taphrina
Buffalo Berry	Cylindrosporium, Puccinia, Rhizoctonia, Septoria
Camellia	Botrytis, Cercospora, Elsinoe, Exobasidium, Glomerella, Pestalotia, Phomopsis, Phyllosticta
Carnation	Alternaria, Botrytis, Cladosporium, Colletotrichum, Fusarium, Helminthosporium, Septoria, Stemphylium, Uromyces
Catalpa	Alternaria, Cercospora, Gloeosporium, Phomopsis, Rhizoctonia
Cedar	Gymnosporangium, Lophodermium
Cherry, Ornamental	Alternaria, Cercospora, Cladosporium, Coccoomyces, Coryneum, Fusicladium, Monilinia, Phomopsis, Phyllosticta, Taphrina
Chinese evergreen	Colletotrichum, Gloeosporium
Chrysanthemum	Alternaria, Ascochyta, Bipolaris, Botrytis, Cercospora, Cylindrosporium, Helminthosporium, Phyllosticta, Septoria, Stemphylium
Coleus	Alternaria, Botrytis, Phyllosticta
Columbine	Ascochyta, Botrytis, Cercospora, Puccinia, Rhizoctonia, Septoria

<b>PLANT</b>	<b>PATHOGEN CONTROLLED</b>
Cordyline	Cercospora
Cotoneaster	Cercospora, Phyllosticta, Venturia
Crabapple	Gymnosporangium, Marssonina, Phyllosticta, Septoria, Venturia
Croton	Gloeosporium
Cuphea (Mexican heather)	Gloeosporium, Rhizoctonia
Cyclamen	Botrytis, Cladosporium, Fusarium, Glomerella, Phyllosticta, Ramularia
Cypress	Coryneum, Fusarium, Gymnosporangium, Lophodermium, Monchaetia, Pestalotia, Phomopsis
Dahlia	Alternaria, Botrytis, Fusarium, Rhizoctonia
Daisy	Botrytis, Cercospora, Whetzelinia
Daisy, Shasta	Cylindrosporium, Fusarium, Septoria
Daisy, Transvaal	Alternaria, Botrytis, Gloeosporium
Delphinium	Ascochyta, Botrytis, Cercospora, Diaporthe, Fusarium, Phyllosticta, Puccinia, Ramularia, Septoria, Volutella
Dieffenbachia	Cephalosporium, Colletotrichum, Gloeosporium, Glomerella, Leptosphaeria
Dogwood	Ascochyta, Botrytis, Cercospora, Colletotrichum, Elsinoe, Phyllosticta, Septoria
Dusty Miller	Fusarium, Puccinia
Elm	Botryosphaeria, Cephalosporium, Cercospora, Coryneum, Cylindrosporium, Fusarium, Gloeosporium, Monochaetia, Mycosphaerella, Phomopsis, Phyllosticta, Rhizoctonia, Sphaeropsis, Taphrina
Euonymus	Cercospora, Colletotrichum, Gloeosporium, Marssonina, Ramularia, Septoria, Whetzelinia
Fern	Botrytis, Cercospora, Curvularia, Cylindrosporium, Glomerella, Phyllosticta, Taphrina
Ficus	Alternaria, Ascochyta, Cephalosporium, Cercospora, Cladosporium, Colletotrichum, Fusarium, Gloeosporium, Glomerella, Mycosphaerella, Phomopsis, Stemphylium
Fir (Abies)	Cephalosporium, Lophodermium, Melampsora, Phomopsis, Sphaeropsis
Firethorn	Fusarium, Fusicladium, Rhizoctonia
Fittonia	Rhizoctonia
Four-o'clock	Cercospora, Rhizoctonia
Fuchsia	Botrytis, Phomopsis, Septoria
Gardenia	Alternaria, Botrytis, Diaporthe, Mycosphaerella, Pestalotia, Phomopsis, Phyllosticta, Rhizoctonia
Geranium	Alternaria, Ascochyta, Bipolaris, Botrytis, Cercospora, Cylindrosporium, Helminthosporium, Puccinia, Ramularia, Rhizoctonia, Septoria, Uromyces, Venturia
Gladiolus*	Alternaria, Botrytis, Cladosporium, Curvularia, Rhizoctonia, Septoria, Stemphylium
Gold Dust Tree	Gloeosporium, Glomerella, Pestalotia, Phyllosticta
Gomphrena	Cercospora
Gypsophila	Botrytis, Rhizoctonia
Hawthorn	Cercospora, Cylindrosporium, Gloeosporium, Gymnosporangium, Monilinia, Mycosphaerella, Phyllosticta, Septoria, Venturia
Hemlock, Eastern (Tsuga)	Botrytis, Cylindrosporium, Melampsora, Rhizoctonia
Hibiscus	Alternaria, Cercospora, Colletotrichum, Fusarium, Phyllosticta
Hickory	Cercospora, Cladosporium, Elsinoe, Fusarium, Gnomonia, Mycosphaerella, Pestalotia, Phyllosticta, Septoria
Holly	Phyllosticta
Hollyhock	Alternaria, Ascochyta, Cercospora, Colletotrichum, Puccinia, Septoria
Horse Chestnut	See Buckeye
Hydrangea	Ascochyta, Botrytis, Cercospora, Colletotrichum, Phyllosticta, Rhizoctonia, Septoria
Impatiens	Cercospora, Phyllosticta, Rhizoctonia, Septoria
Indian Hawthorn	Entomosporium
Iris	Ascochyta, Botrytis, Cladosporium, Fusarium, Kabatiella, Phyllosticta, Puccinia, Rhizoctonia
Ivy	Cladosporium, Colletotrichum, Glomerella, Phyllosticta, Ramularia, Rhizoctonia, Sphaeropsis

<b>PLANT</b>	<b>PATHOGEN CONTROLLED</b>
Jade plant	Gloeosporium, Phomopsis
Juniper	Cercospora, Coryneum, Gymnosporangium, Lophodermium, Pestalotia, Phomopsis, Stigmata
Kalanchoe	Cercospora, Stemphylium
Larkspur	See Delphinium
Laurel, Cherry	Alternaria, Cercospora, Coccoomyces, Monilinia, Phyllosticta, Septoria
Laurel, Mountain	Cercospora, Mycosphaerella, Pestalotia, Phomopsis, Rhytisma, Septoria
Lavender, Cotton	Septoria
Lilac	Botrytis, Cercospora, Cladosporium, Cylindrocladium, Gloeosporium
Lily	Botrytis, Cercospora, Cladosporium, Colletotrichum, Fusarium, Puccinia, Ramularia, Rhizoctonia
Lobelia	Botrytis, Cercospora, Puccinia, Rhizoctonia, Septoria
Loquat	Colletotrichum, Fusicladium, Pestalotia, Phyllosticta, Septoria
Magnolia	Alternaria, Cercospora, Cladosporium, Colletotrichum, Glomerella, Rhizoctonia
Mahonia	Cercospora, Cylindrocladium, Gloeosporium, Leptosphaeria, Phomopsis, Phyllosticta, Puccinia
Maple	Alternaria, Cercospora, Ciborinia, Fusarium, Marssonina, Monochaetia, Phomopsis, Phyllosticta, Rhizoctonia, Rhytisma, Septoria, Sphaeropsis, Taphrina, Venturia
Myrtle	Cercospora, Glomerella, Pestalotia
Nasturtium	Botrytis, Cercospora, Puccinia
Nannyberry	Botrytis, Cercospora, Cladosporium, Helminthosporium, Monochaetia, Phomopsis, Phyllosticta, Ramularia
Nephthytis	Cephalosporium
Nicotiana	Alternaria
Nierembergia	Botrytis
Oak	Cephalosporium, Cercospora, Cladosporium, Cronartium, Elsinoe, Fusarium, Gloeosporium, Gnomonia, Marssonina, Phyllosticta, Septoria, Taphrina, Venturia
Orchid	Cercospora, Fusicladium, Mycosphaerella, Phyllosticta, Puccinia, Septoria
Palm, Arenga	Cercospora, Colletotrichum, Cylindrocladium, Pestalotia, Phoma, Stigmata
Palm, Cabbage	Fusarium, Gloeosporium, Pestalotia, Stigmata
Palm, Coconut	Pestalotia
Palm, Date	Alternaria, Fusarium, Helminthosporium, Pestalotia
Palm, King	Alternaria, Fusarium, Helminthosporium, Pestalotia, Phomopsis
Palm, Phoenix	Alternaria, Cercospora, Fusarium, Gloeosporium, Pestalotia, Phomopsis, Stigmata
Palm, Queen	Glomerella, Septoria
Palm, Royal	Alternaria, Cercospora, Colletotrichum, Helminthosporium
Palm, Washington	Cercospora, Colletotrichum, Cylindrocladium, Pestalotia, Phoma, Stigmata
Pansy	Alternaria, Botrytis, Cercospora, Colletotrichum, Peronospora, Phyllosticta, Ramularia, Rhizoctonia
Peach	Cercospora, Cladosporium, Coryneum, Fusarium, Glomerella, Monilinia, Mycosphaerella, Phomopsis, Phyllosticta, Taphrina
Pear	Alternaria, Botrytis, Cercospora, Cladosporium, Coryneum, Elsinoe, Fusarium, Glomerella, Gymnosporangium, Helminthosporium, Monilinia, Mycosphaerella, Phomopsis, Phyllosticta, Venturia
Peony	Alternaria, Botrytis, Cercospora, Cladosporium, Gloeosporium, Phyllosticta, Septoria
Peperomia	Colletotrichum, Gloeosporium, Rhizoctonia
Periwinkle	Alternaria, Botrytis, Cladosporium, Colletotrichum, Phomopsis, Phyllosticta, Puccinia, Rhizoctonia, Septoria
Petunia	Cercospora, Puccinia, Rhizoctonia, Stemphylium
Philodendron	Colletotrichum, Gloeosporium
Phlox	Ascochyta, Botrytis, Cercospora, Colletotrichum, Phyllosticta, Puccinia, Ramularia, Septoria, Stemphylium, Volutella
Photinia	Cercospora, Gloeosporium, Gymnosporangium, Lophodermium, Pestalotia, Phyllosticta, Septoria
Pieris	Alternaria, Pestalotia, Phyllosticta, Rhytisma

<b>PLANT</b>	<b>PATHOGEN CONTROLLED</b>
Pine	Alternaria, Botrytis, Cronartium, Fusarium, Lophodermium, Monochaetia, Rhizoctonia, Septoria, Sirococcus
Pine, Norfolk Island	Botrytis, Colletotrichum, Cronartium, Cylindrocladium, Fusarium, Lophodermium, Pestalotia, Rhizoctonia, Septoria, Sirococcus
Pittosporium	Alternaria, Cercospora, Gnomonia, Mycosphaerella, Phyllosticta, Rhizoctonia, Septoria
Plane tree	Cercospora, Gnomonia, Phyllosticta, Septoria
Plum, Ornamental	Botrytis, Cercospora, Cladosporium, Coccoomyces, Coryneum, Monilinia, Phyllosticta, Taphrina
Poinsettia**	Botrytis, Cercospora, Fusarium, Uromyces
Poplar	Cercospora, Ciborinia, Colletotrichum, Cylindrocladium, Fusarium, Marssonina, Melampsora, Mycosphaerella, Phyllosticta, Septoria, Stigmata, Taphrina, Venturia
Portulaca	Rhizoctonia
Pothos	Rhizoctonia
Primrose	Alternaria, Botrytis, Colletotrichum, Mycosphaerella, Puccinia, Ramularia, Uromyces
Privet	Cercospora, Glomerella, Phomopsis, Phyllosticta, Ramularia
Red tip	See Photinia
Redwood, Sequoia	Botrytis, Cercospora, Mycosphaerella, Pestalotia, Phomopsis
Rhododendron	Alternaria, Cercospora, Coryneum, Gloeosporium, Glomerella, Guignardia, Lophodermium, Mycosphaerella, Pestalotia, Phomopsis, Rhizoctonia, Septoria, Venturia
Rose	Alternaria, Bipolaris, Botryosphaeria, Botrytis, Cercospora, Cladosporium, Cylindrocladium, Diplocarpon, Elsinoe, Gloeosporium, Helminthosporium, Leptosphaeria, Monochaetia, Mycosphaerella, Peronospora, Phyllosticta, Septoria
Russian olive	Cercospora, Colletotrichum
Sage	Cercospora, Peronospora, Puccinia, Ramularia, Rhizoctonia
Salvia	Cercospora, Puccinia
Schefflera	Alternaria
Senecio	Cercospora, Gloeosporium, Phyllosticta, Puccinia, Ramularia, Septoria
Snakeplant	Fusarium, Gloeosporium
Snapdragon	Alternaria, Bipolaris, Botrytis, Cercospora, Colletotrichum, Drechslera, Fusarium, Helminthosporium, Peronospora, Phyllosticta, Puccinia, Rhizoctonia
Spathiphyllum	Alternaria
Spindletree	See Euonymus
Spirea	Cylindrosporium
Spruce	Ascochyta, Botrytis, Cladosporium, Lophodermium, Rhizoctonia
Spurge	Cercospora, Melampsora, Puccinia
Statice	Alternaria, Ascochyta, Botrytis, Cercospora, Colletotrichum, Rhizoctonia, Uromyces
Strawflower	Fusarium
Sumac	Cercospora, Cladosporium, Fusarium, Phyllosticta, Septoria, Taphrina
Sunflower, Ornamental	Alternaria, Puccinia
Syngonium	Cephalosporium, Erwinia, Fusarium
Verbena	Alternaria, Ascochyta, Botrytis, Cercospora, Phyllosticta, Puccinia, Rhizoctonia, Septoria, Stemphylium
Viburnum	Botrytis, Cercospora, Cladosporium, Helminthosporium, Monochaetia, Phomopsis, Ramularia
Walnut	Cercospora, Cladosporium, Cylindrocladium, Cylindrosporium, Gnomonia
Willow	Ascochyta, Cercospora, Ciborinia, Cylindrosporium, Fusicladium, Gloeosporium, Marssonina, Melampsora, Phomopsis, Phyllosticta, Ramularia, Rhytisma, Septoria, Taphrina, Venturia
Wisteria	Alternaria, Cercospora, Colletotrichum, Gloeosporium, Pestalotia
Yucca	Cercospora, Cylindrosporium, Gloeosporium, Puccinia
Zinnia	Alternaria, Botrytis, Cercospora, Rhizoctonia

\*Do not exceed 0.75 lb. per 100 gallons on flower spikes.

\*\*Do not exceed 1.5 lbs. per 100 gallons.

This product is not recommended for the treatment of marigolds due to highly variable plant responses.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in the original container in a dry area. If allowed to become wet the product will deteriorate and represent a fire hazard. Keep away from sources of ignition (e.g., sparks and open flame). Close bag when not in use. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling sweep up spillage and dispose of in accordance with the Pesticide Disposal instructions listed below.

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

**Container Handling: Nonrefillable container. Do not reuse or refill this container.** Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## IMPORTANT INFORMATION READ BEFORE USING PRODUCT

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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