



College of Agriculture, Food and Environment
Cooperative Extension Service

Plant Pathology Fact Sheet

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Homeowner’s Guide to Fungicides

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Diseases in home gardens, orchards, and landscapes do not always cause total losses, but they can be serious problems if left unmanaged. As a rule, chemicals are not recommended as the only means of disease control for homeowners. Cultural practices such as sanitation, irrigation management, rotation, selection of disease-resistant varieties, and other measures that promote plant health are usually enough to control most diseases. However, chemicals may be required to successfully manage certain diseases and can be used to supplement good production practices. Before using a fungicide or bactericide, be sure the disease has been correctly identified, which is essential to selecting effective products, AND check the packaging label to verify that the product can be used legally on the plants to be treated. The purpose of this guide is to help homeowners with the selection of fungicides for their residential plantings. The products included in this guide are specifically labeled for home use, are generally available in garden centers and retail outlets, and can be purchased in small, easy-to-use packages. Only general product information is provided here; residential users should follow product labels carefully for usage, rates, and approved crops.

FUNGICIDE/BACTERICIDE SELECTION CHART

("X" indicates that the fungicide is approved for use on those plants)

	<i>captan</i>	<i>chlorothalonil</i>	<i>copper</i>	<i>horticultural oils</i>	<i>mancozeb</i>	<i>myclobutanil</i>	<i>phosphorus acid</i>	<i>propiconazole</i>	<i>streptomycin sulfate</i>	<i>sulfur</i>	<i>tebuconazole</i>	<i>triforine</i>
lawn			X	X		X	X	X				
flowers	X	X	X	X	X	X	X	X	X	X	X	X
rose	X		X	X	X	X	X	X	X	X	X	X
trees & shrubs	X	X	X	X	X	X	X	X	X	X	X	X
apple/pear	X		X	X		X	X	X	X	X		
peach/plum/cherry	X	X	X	X		X	X	X		X		
berries & brambles	X		X	X		X	X					
grape	X		X	X	X	X	X					
nuts			X	X			X					
asparagus				X	X	X	X					
bean/pea		X	X	X		X	X			X		
beet			X	X								
carrot/parsnip		X	X	X								
celery		X	X	X								
cole crops		X	X	X			X			X		
corn (sweet)		X	X	X	X			X				
cucurbits (vine crops)		X	X	X	X	X	X					
eggplant			X	X								
leafy greens			X	X								
onion		X	X	X	X		X			X		
peppers		X	X	X			X					
potato		X	X	X	X		X					
tomato		X	X	X	X	X	X					

DISEASE CONTROL PRODUCTS FOR HOMEOWNER USE

	Trade Names	Uses & Safety Information	Crops
Captan	Bonide Captan Fruit and Ornamental WP	Protectant foliar treatment for suppression of fungal diseases; seed dressing to prevent rots and damping-off. Use a mask when handling.	Ornamentals: flowers, shrubs Fruit: apple, blueberry, cherry, grape, peach, plum, strawberry
	Bonide Fruit Tree Spray Concentrate		
	Hi-Yield Captan 50 WP		
	Southern Ag Captan 50 WP		
Chlorothalonil	Bonide Fungonil Concentrate	Contact fungicide for black spot, fruit rots, leaf blight, leaf spots, powdery mildew, rust, scab, and other fungal diseases. Pre-harvest interval 0-14 days (depends on crop); refer to label.	Ornamentals: flowers, shrubs, trees Fruit: blueberry, cherry, peach, plum Vegetables: bean/pea, carrot/parsnip, celery, cole crops, corn (sweet), cucurbits (vine crops), onion, peppers
	Bonide Fungonil RTU		
	Ferti-lome Broad Spectrum Landscape and Garden Fungicide		
	Garden Tech Daconil Fungicide		
	Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide		
	Ortho MAX Garden Disease Control		
	Southern Ag Liquid Ornamental and Vegetable Fungicide		
Copper	Bonide Copper Dust	Contact fungicide for control of anthracnose, bacterial spot, bacterial blight, downy mildew, fire blight, fruit rots, leaf spots, powdery mildew, rusts, and other fungal and bacterial diseases. *Approved for organic use. Pre-harvest interval 0 days; refer to label.	Ornamentals: lawn, flowers, shrubs, trees Fruit & nuts: apple, blueberry, blackberry, cherry, grape, peach, pear, plum, raspberry, strawberry, walnut Vegetables: asparagus, bean/pea, beet. Carrot/parsnip, celery, cole crops, corn (sweet), cucurbits (vine crops), eggplant, leafy greens, onion, peppers, potato, tomato
	Bonide Liquid Copper Concentrate*		
	Bonide Liquid Copper RTU*		
	Camelot O Fungicide /Bactericide Concentrate		
	Miracle Gro Nature's Care Garden Disease Control*		
	Natural Guard Copper Soap Fungicide Concentrate*		
	Southern Ag Liquid Copper Fungicide*		

DISEASE CONTROL PRODUCTS FOR HOMEOWNER USE (CONT'D)

	Trade Names	Uses & Safety Information	Crops
Horticultural Oils	Neem Oil* (plant based product)	Oil extract for the control of powdery mildews and rust fungal diseases. Do not use during extreme temperatures. Do not use with sulfur products. Do not apply when plants are wet. Some oils can damage plant tissue. Ensure crop safety by testing a small area and observing for 2 days. * Some products are approved for organic use. Check product label for more information.	Ornamentals: flowers, rose, trees & shrubs Fruit & nuts: apple/pear, peach/plum/cherry, berries & brambles, grape, nuts Vegetables: asparagus, bean/pea, beet, carrot/parsnip, celery, cole crops, corn (sweet), cucurbits (vine crops), eggplant, leafy greens, onion, pepper, potato, tomato
	Plant Based Oil Products* (garlic, rosemary, soybean, etc.)		
	Petroleum or Mineral Oil Products*		
Mancozeb	Bonide Mancozeb Flowable with Zinc	Contact fungicide for control of anthracnose, black spot, downy mildew, fruit rots, leaf spots and blights, petal and stem blights, and other fungal diseases. Pre-harvest interval 5-120 days (depends on crop); refer to label.	Ornamentals: flowers, shrubs, trees Fruit: grape Vegetables: corn (sweet), cucurbits (vine crops), onion, potato, tomato
	Southern Ag Dithane M-45		
Myclobutanil	Ferti-lome F-Stop Granules	Systemic foliar treatment for suppression of anthracnose, black spot, brown patch, leaf spots, powdery mildew, petal blight, rust, and other fungal diseases. Pre-harvest interval of 0-180 days (depends on crop); refer to label.	Ornamentals: lawn, flowers, shrubs, trees Fruit: apple, blackberry, cherry, grape, peach, plum, strawberry Vegetables: asparagus, bean/pea, cucurbits (vine crops), tomato **For use with fruit and vegetables
	Green Light Fung-Away Systemic Lawn Fungicide		
	Spectracide Immunox Multi-Purpose Fungicide Concentrate**		
	Spectracide Immunox Lawn Disease Control Concentrate		
Phosphorus Acid	Monterey Agri-Fos Systemic Fungicide	Fully systemic control of downy mildew, root rots and other diseases caused by water-molds.	Ornamentals: trees, lawn, flowers, shrubs Fruits & nuts: apple, blackberry, blueberry, grape, peach, plum, raspberry, strawberry, chestnut, hickory nuts, pecan, walnut Vegetables: asparagus, bean/pea, cole crops, cucurbits (vine crops), onion, peppers, potato, tomato

DISEASE CONTROL PRODUCTS FOR HOMEOWNER USE (CONT'D)

	Trade Names	Uses & Safety Information	Crops
Propiconazole	Bonide INFUSE Concentrate	Systemic fungicide that controls anthracnose, black spot, brown patch, flower blight, leaf spots, powdery mildew, rust, scab, and other fungal diseases. Pre-harvest interval 14 days; see label before use.	Ornamentals: turf, flowers, shrubs, trees Fruit: apple (non-bearing), cherry, peach, plum Vegetables: corn (sweet)
	Bonide Infuse Lawn and Landscape RTS		
	Ferti-lome Liquid Systemic Fungicide II		
Streptomycin Sulfate	Ferti-lome Fire Blight Spray	For control of bacterial diseases such as bacterial wilt, crown gall, and bacterial leaf spots.	Ornamentals: flowers, shrubs Fruit: apple, pear
Sulfur	Bonide Sulfur Dust*	*Approved for organic use	Ornamentals: flowers, shrubs, trees Fruit: apple, cherry, pear, peach, plum Vegetables: bean/pea, cole crops, onion
	Hi-Yield Dusting Wettable Sulfur		
	Safer Garden Fungicide Concentrate*		
	Southern Ag Wettable or Dusting Sulfur		
Tebuconazole	BioAdvanced Disease Control for Roses, Flowers, and Shrubs	Systemic fungicide for control of anthracnose, black spot, leaf spot, petal blight, powdery mildew, rust, scab, and other fungal diseases.	Ornamentals: flowers, shrubs, trees
	Bonide Rose Rx Systemic Drench Concentrate (tebuconazole + imidacloprid)		
	BioAdvanced 3-in-1 Insect, Disease, and Mite Control (tebuconazole + imidacloprid + tauflualinate)		
Trticonazole	Ortho Rose and Flower Insect and Disease Control	Controls and prevents black spot, powdery mildew, rust, and other fungal diseases.	Ornamentals: flowers, shrubs, trees

ADDITIONAL INFORMATION

- Disease and Insect Control Programs for Homegrown Fruit in Kentucky (ID-21)
<http://www.ca.uky.edu/agc/pubs/id/id21/id21.pdf>
- Disease Management in the Home Lawn (PPFS-OR-T-11)
<https://plantpathology.ca.uky.edu/files/ppfs-or-t-11.pdf>
- Fungicides for Management of Landscape Woody Ornamental Diseases (PPFS-OR-W-14)
<https://plantpathology.ca.uky.edu/files/ppfs-or-w-14.pdf>
- Home Vegetable Gardening (ID-128)
<http://www.ca.uky.edu/agc/pubs/id/id128/id128.pdf>
- Managing Diseases of Herbaceous Ornamentals (PPFS-OR-H-01)
<https://plantpathology.ca.uky.edu/files/ppfs-or-h-01.pdf>
- Woody Plant Disease Management Guide for Nurseries & Landscapes (PPFS-OR-W-29)
<https://plantpathology.ca.uky.edu/files/ppfs-or-w-29.pdf>

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