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Fungicide Spray Schedule for Home Garden Tree Fruits

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Growing tree fruits in the home garden can be a very enjoyable experience, and with proper management, can provide many years of enjoyment. Success in growing tree fruits depends on following an approach known as integrated pest management, or IPM. In this management program, variety selection, cultural practices and chemical means are used to prevent or reduce losses due to diseases or insects. Efforts spent in initial planning by selecting hardy cultivars with resistance can save much time in the future and will minimize the need for other management strategies.

Cultural practices, such as rotation, sanitation, and planting resistant varieties can be effective in managing some diseases, but with other diseases these measures may not be sufficient. When variety selection and cultural practices are not sufficient to control disease problems, fungicides may be applied to provide adequate control.

When used correctly, chemical controls are safe for the environment, the applicator and also the consumer. It is the responsibility of the applicator to properly use, store and dispose of fungicides and other pesticides. Effective chemical control of diseases depends on use of the proper chemical at the correct time and thorough coverage of both fruits and leaves with the product. Proper timing and chemical application is necessary for effective disease control.

Reading and following the product label is an important part of any fungicide program. It includes directions for mixing and applying the product, safety information and waiting periods from last application to harvest. By following an IPM approach, which includes the responsible use of fungicides and other pesticides, the number of enjoyable years that one can expect from a home tree fruit planting can be considerable.

Table I. Target diseases listed on labels of fungicides^{1,2,3} for use on home garden tree fruits.

<i>Tree Fruit/Disease</i>	<i>Bordeaux mixture</i>	<i>Captan</i>	<i>Chlorothalonil⁴</i>	<i>Liquid copper</i>	<i>Ferbam⁵</i>	<i>Lime sulfur</i>	<i>Mancozeb⁶</i>	<i>Sulfur⁷</i>	<i>Neem oil⁸</i>
Apple and Pear									
Fire blight	X			X					
Powdery mildew						X		X	X
Rust					X		X	X	X
Scab	X not pear	X not pear			X	X	X	X	X
Peach									
Brown rot		X	X	X		X		X	
Peach leaf curl	X		X	X	X	X			
Scab		X	X			X		X	X
Apricot									
Brown rot			X						
Plum									
Black knot		X	X						
Brown rot		X	X					X	
Cherry									
Cherry leaf spot		X	X	X				X	
Brown rot		X	X	X				X	
Black knot		X	X						

¹Product guide of home garden tree fruit fungicide trade names.

Bordeaux mixture: Acme Bordeaux Mixture, Dragon Bordeaux Mix

Captan: Ortho Home Orchard Spray, Acme Liquid Fruit Tree Spray, Earl May Fruit Tree Spray, Dragon Fruit Tree Spray

Chlorothalonil: Ortho Multi-purpose Fungicide Daconil 2787, Dragon Daconil 2787

Liquid copper: Bonide Liquid Copper Fungicide, Hi-Yield Copper Fungicide

Ferbam: Dragon Ferbam Wettable Fungicide

Lime sulfur: Ortho Dormant Disease Control Lime-Sulfur Spray, Earl May Lime Sulfur, Acme Lime Sulfur Spray

Mancozeb: Green Light Broad Spectrum Mancozeb Fungicide

Sulfur: Ferti-Lome Dusting Sulfur, Dragon Wettable or Dusting Garden Sulfur

Neem oil: Green Light NEEM Concentrate, Green Light Powdery Mildew Killer

²The time limit between the last treatment and harvest will vary among the different fungicide products. Read the label before applying and observe the pre-harvest interval. Always wash fruits before eating or processing.

³Fungicides listed are intended for information purposes. No criticism is intended of products not listed, nor is endorsement by the University of Nebraska given to those listed. Read and follow all product label directions for mixing and application.

⁴Chlorothalonil cannot be used on stone fruits after petal fall.

⁵Ferbam products have a waiting period between treatment and harvest of seven days for apples and pears and 21 days for peaches.

⁶Mancozeb products cannot be applied within 77 days before harvest.

⁷Some apple varieties are sensitive to sulfur. Do not apply within four weeks of an oil spray.

⁸Do not apply to stressed plants or to new transplants. Apply in early morning or evening.

Table II. Spray schedule for diseases of home garden tree fruits.

<i>Time to spray</i>	<i>Fungicide^{1,2}</i>		<i>Notes</i>
	Apple	Pear	
Dormant	Dormant oil or Liquid copper or Lime sulfur	Dormant oil or Lime sulfur	
Pre-pink	Captan ³ or Mancozeb or Ferbam	No spray needed	
Pink	Captan or Mancozeb or Ferbam	Captan or Mancozeb or Ferbam	
Petal fall	Captan or Mancozeb or Ferbam	Captan or Mancozeb or Ferbam	
First cover spray	Captan	Captan	Apply cover sprays to foliage until it drips off.
Second cover spray	Captan or Neem oil	Captan or Neem oil	
Third cover spray	Captan or Neem oil	Captan or Neem oil	
Additional cover sprays (every 10 days as needed until Sept 1)	Captan or Neem oil	Captan or Neem oil	
Peach and Nectarine			
Dormant	Ferbam or Bordeaux mixture or Chlorothalonil		
Bud swell	Dormant oil or Liquid copper		
Pink			
Petal fall	Sulfur [†] or Captan or Chlorothalonil or Liquid copper		†Use caution when weather is hot
First cover	Sulfur [†] or Captan or Neem oil [‡]		†Use caution when weather is hot ‡Powdery mildew
Remaining covers	Sulfur [†] or Captan or Neem oil [‡]		†Use cautioned when weather is hot ‡Powdery mildew
Final spray	Sulfur [†] or Captan or Neem oil [‡]		†Use caution when weather is hot ‡Powdery mildew

Table II. continued.

<i>Time to spray</i>	<i>Fungicide</i> ^{1,2}	<i>Notes</i>
Plum		
Dormant	Lime sulfur or Bordeaux mixture or Chlorothalonil	
Bud swell	Dormant oil	
Pink	Lime sulfur or Chlorothalonil or Captan	
Petal fall	Sulfur [†] or Captan or Chlorothalonil	[†] Use caution when weather is hot
First cover	Sulfur [†] or Captan	[†] Use caution when weather is hot
Remaining covers	Sulfur [†] or Captan	[†] Use caution when weather is hot
Final spray	Sulfur [†] or Captan	[†] Use caution when weather is hot
Cherry		
Dormant	Lime sulfur	
Bud swell	Dormant oil or Liquid copper	
Pink	No spray needed	
Petal fall	Captan or Chlorothalonil	
First cover	Captan or Neem oil [‡] or Liquid copper	[‡] Powdery mildew
Remaining covers	Captan or Neem oil [‡]	[‡] Powdery mildew
Final spray	Liquid copper	
Apricot		
Dormant	Chlorothalonil or Lime sulfur	
Bloom	Chlorothalonil	
Petal fall	Chlorothalonil	
First cover	Liquid copper	

¹The time limit between treatments will vary among the different fungicide products. Read the label before applying and observe the pre-harvest time interval between the last application and harvest. Always wash fruits before eating or processing.

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³Captan is available as a tank mix with insecticide in a fruit tree spray product.

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D-1, Fruits

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