

Using Common Pesticides on Backyard Tree Fruits

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These recommendations are for homeowners using commonly available homeowner fruit sprays. Pesticide registration for home fruit has changed a lot in the last few years and many materials are no longer sold. Most materials are registered on some but not all fruit. I discuss the pesticides used in home fruit in another file. Read the label to determine the spray's ingredients, what crops to use it on and how to use the material. I also have a listing of MSU fruit publications of interest to home growers. Thoroughly wet all foliage for good control of insects and diseases. Generally only fungicides are necessary before bloom. Insecticides are used after bloom to protect the fruit. Pesticide incompatibilities occur when pesticides are combined. The specific interaction that homeowners need to worry about is when using oil. Oil should not be used with Captan or sulfur fungicides because the oil will carry the Captan or sulfur into the plant. A general rule of thumb is that a week or more should separate Captan sprays from oil sprays

Here are recommendations for using common home fruit pesticides on Fruit Trees

<p>Apples</p>	<p>Apply dormant oil or lime sulfur in the dormant season before green tissue appears, to control <u>scale</u>, <u>mites</u> and <u>aphids</u>. Lime sulfur is sometimes applied in the dormant season to reduce diseases. For <u>apple scab</u>, start Captan sprays at first sign of green tissue; spray before or right after each rain until about a month after petal fall. Unless you know you have an insect problem, insecticides are not generally included in prebloom sprays.</p> <p>After petal fall, when the fruit are as big as your fingernails, include Sevin for <u>plum curculio</u>. Sevin insecticide is a mild fruit thinner of apples. This is good for reducing the crop and making the fruit larger at harvest. The best results are when the fruit are ¼ to ½ inch in diameter and the weather is warm.</p> <p>Many different insect pests attack <u>apples</u>. <u>Codling moth</u> and <u>apple maggot</u> are common backyard pests. Captan plus Sevin or a fruit tree spray mix should be used every 10 to 14 days until harvest or Sept. 15 whichever comes first. If <u>mites</u> or <u>aphids</u> appear, spray with insecticidal soap, 2 tablespoons per gallon of water. Spray twice at a 7-day interval.</p>
<p>Pears</p>	<p>Disease control is similar in pears to the apple program except pears generally have fewer insect pests. Apply dormant oil before green tissue appears to control <u>pear psylla</u> eggs.</p> <p>For pear scab, start Captan sprays at first sign of green tissue; spray before or right after each rain until petal fall. Continue this fungicide program until a month after bloom. You may need to treat for <u>plum curculio</u> when the fruits are as big as your fingertips. Because pears are so hard few insects attack the fruit until August when the fruit begins to soften before harvest In August, Captan plus Sevin or a fruit tree spray should be used every 10 to 14 days until harvest. When <u>pear psylla</u> appears, spray with insecticidal soap, 2 tablespoons per gallon of water. Spray at 7-day intervals.</p>

Stone Fruit	Chlorothalonil is used in stone fruit to control blossom brown rot. Chlorothalonil should not be used on the fruit. Chlorothalonil is only allowed until shuck slit and after harvest. All stone fruit need trunk sprays for <u>peach tree borers</u> . These trunk spray should be applied in late June or early July using materials registered for that use (look for borer sprays)
Apricots	Do not use Sulfur on Apricots. A dormant copper spray such as Bordeaux mixture will reduce disease. Chlorothalonil is used to control blossom brown rot. Apply brown rot sprays just before and during bloom. Spray after each rain during bloom. After bloom use Captan to reduce diseases, spray every 10 to 14 days until harvest. After petal fall, add Sevin to mixture or use all-purpose fruit spray for <u>plum curculio</u> and other insect pests continue with mixture until harvest. These insecticide sprays should also control rose chafer and <u>oriental fruit moth</u> , common apricot pests. A trunk spray for <u>peach tree borers</u> should be applied in late June or early July.
Peaches	A copper spray such as Bordeaux mixture or a lime sulfur spray in the dormant season will reduce <u>Peach leaf curl</u> and bacterial spot. Chlorothalonil is used to control blossom brown rot. Apply brown rot sprays just before and during bloom. Spray right after each rain during bloom. After bloom, use Captan; spray every 10 to 14 days until harvest, to control peach scab (rusty spot), mildew and fruit brown rot. For insects, add Sevin to your spray mixture, after petal fall, or use all-purpose fruit spray for <u>plum curculio</u> and other insects. Continue using the insecticide, fungicide mixture until harvest. These insecticide sprays should also control rose chafer and <u>oriental fruit moth</u> . A trunk spray for <u>peach tree borers</u> should be applied in late June or early July.
Plums	A copper spray such as Bordeaux mixture or a lime sulfur spray will reduce diseases such as bacterial spot. Chlorothalonil is used control blossom brown rot. Apply brown rot sprays before and during bloom. Spray immediately after each rain during bloom. After bloom use Captan; spraying every 10 to 14 days until harvest. <u>Black knot</u> is a significant disease of plums in Michigan and Captan does not give good control. Cut out black knot as soon as you see it. Apply Sevin, at shuck split and again 10 days later, for <u>plum curculio</u> . Inspect the fruit during this time for signs of egg-laying and spray if you fin egg-laying. <u>Apple maggot</u> and fruit worms can be a problem at harvest. Begin spraying Captan and Sevin again when fruit begins to color and apply at 10-day intervals or after each rain until harvest. A trunk spray for <u>peach tree borers</u> should be applied in late June or early July.
Sweet cherry	A copper spray such as Bordeaux mixture will reduce bacterial canker. Sweet cherries are not tolerant of copper. Copper should only be used in the dormant season. Sweet cherries are very susceptible to brown rot. Use chlorothalonil sprays just before and during bloom. Spray at least twice during bloom or right after each rain during bloom. Spray on last time with chlorothalonil for cherry leaf spot before shuck split. After shuck split use Captan; spray every 10 to 14 days until harvest to control cherry leaf spot and fruit brown rot. Add Sevin to the spray mixture after shuck split and again 10 days later for <u>plum curculio</u> . For <u>cherry fruit fly</u> , use Sevin when fruit begins to color and apply at 10-day intervals until harvest. After harvest use chlorothalonil once again to control cherry leaf spot. A trunk spray for <u>peach tree borers</u> should be applied in late June.
Tart Cherry	A dormant copper spray such as Bordeaux mixture reduces bacterial canker. Tart cherries are tolerant of copper and copper may be used in moderation after the leaves come out to control cherry leaf spot. Tart cherries seldom get blossom brown rot. Chlorothalonil can be used to control blossom brown rot. Apply brown rot sprays before and during bloom. Spray right after each rain during bloom. Spray one last time with chlorothalonil after petal fall, before shuck split to control cherry leaf spot. After shuck split use Captan to reduce cherry leaf spot, spray every 10 to 14 days until harvest. After harvest use chlorothalonil once again to control cherry leaf spot. Apply Sevin, after shuck split and again 10 days later, for <u>plum curculio</u> . Use Sevin or Malathion for <u>cherry fruit fly</u> when fruit begins to color and apply at 10-day intervals or after each rain until harvest. A trunk spray for <u>peach tree borers</u> should be applied in early July.

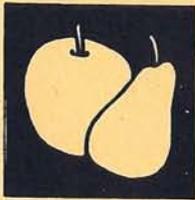


Table 5. Spray schedules for pest control on apples, crabapples, quince and pears.

Time to spray	Apples, crabapples, quince	Pears	Insects and diseases most likely to be a problem at specific times (first column) during the growing season.*
	Materials (rates listed in Table 2)		
Dormant: Early spring before buds swell	Horticultural oil. <i>Note: Do not spray when freezing or near freezing temperatures may be expected or have just occurred.</i>	Horticultural oil	Oil for scale insects, mites, pear psylla and pear leaf blister mites.
Half-inch green: When blossom buds show 1/2 inch green	Captan + benomyl	No spray needed	Fungicide for control of scab.
Prepink: When blossoms first show pink	Captan + benomyl + malathion or all-purpose spray	No spray needed	Fungicide for control of scab and black rot. Insecticide for European red mites and aphids.
Pink: Just before blooms open	Same as prepink spray	Captan	Same as prepink.
Bloom: When 90% of blossoms are open	<i>Note: to protect bees, do not use insecticide during bloom. During bloom is the most critical time to protect trees from infection by fire blight. For recommendations on fire blight control, refer to "Control of specific pests not covered in spray schedules" in this publication.</i>		
Petal fall: When last petals are falling	Captan + benomyl + malathion or Imidan, or all-purpose spray	Captan + Imidan or Sevin, or all-purpose spray	Fungicide for control of scab, black rot, calyx rots and blotch. Insecticide for codling moth, plum curculio, pear psylla and plant bugs.
First cover: Seven days after petal-fall spray	Captan + Imidan or all-purpose spray	Captan + Imidan or all-purpose spray	Fungicide for control of scab, black rot, calyx rots and blotch. Insecticide for codling moth and plum curculio.
Second cover: Two weeks after first cover spray	Captan + Imidan or Sevin, or all-purpose spray	Captan + Imidan or Sevin, or all-purpose spray	Fungicide for control of scab, fruit rots, blotches and leaf spots. Insecticides for codling moth, plum curculio and mites.
Third cover: Two weeks after second cover	Captan + Imidan or Sevin, or all-purpose spray	Sevin + Imidan or all-purpose spray	Fungicide for control of scab, fruit rots and blotches. Insecticides for codling moth, apple maggot and pear psylla.
Remaining covers : Spray every two weeks	Captan + Imidan or Sevin, or all-purpose spray. Continue sprays to within two weeks of harvest or Aug. 30, whichever comes first.	Captan + Imidan or Sevin, or all-purpose spray. Apply two more sprays as above.	Fungicide for control of scab, fruit rots and blotches. Insecticide for codling moth, apple maggot, leathoppers and pear psylla.

* Scab sprays may be required more often than indicated, depending on rainfall and temperature.