

Extension Circular 631

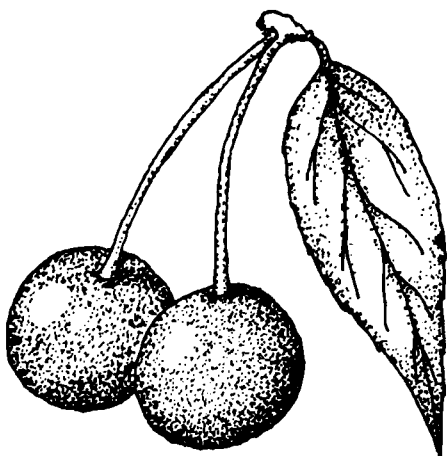
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Spray Schedule for Home Orchards



**Oregon State University
Extension Service**

Spray Schedule for Home Orchards

The spray schedule in this leaflet was prepared for the home gardener. It does not meet the exacting requirements of the commercial fruit grower. The number of recommended materials and the time of application are a minimum.

Many commercial combinations of fungicides and insecticides are available. If used as the manufacturer recommends, these are effective in controlling the insects and diseases listed on the label.

To get good pest control, thorough spray coverage of trees is necessary. It is hard to get complete coverage with hand equipment, but it can be done. Good coverage means thoroughly wetting the leaves, twigs, and branches. When mixed with water, some chemicals such as methoxychlor, Sevin, wettable sulfur, and ziram tend to settle out. Shake or stir the spray mixture frequently during application.

Mature fruit will not have excess chemical residues if you observe the proper interval between the last spray and harvest, as indicated on the manufacturer's label. Wash *all* fruits before eating.

Pesticides Can Be Used Safely

The pesticides suggested in this leaflet have been selected on the basis of their effectiveness, availability, and safety. These pesticides are among the less hazardous to the user. All can be used safely if common sense precautions are observed.

Follow the manufacturer's instructions and precautions for use of a pesticide. **ALWAYS APPLY PESTICIDES ACCORDING TO LABEL INSTRUCTIONS.**

- **Store pesticides in a safe place, out of reach of children.**
- **Destroy empty containers or those without labels.**
- **Do not keep pesticides in beverage bottles or other containers which previously have been used for food or drink.**
- **When mixing and using pesticides, avoid getting them on your skin. Wash your hands after spraying.**

Spray Schedule

Time of Application	Insect or Disease	Materials and Amount Per 1 Gallon of Water
Apple and Pear		
(See dilution table on next page)		
Early spring (dormant) Just before buds open.	Blister mites, scale, scab.	Lime sulfur 1½ cups. (WARNING: lime sulfur will discolor painted buildings.)
Pre pink Before pink bloom shows.	Scab only.	Lime sulfur ½ cup or Cyprex 1T.
Pink Just before blossoms open.	Scab, mildew.	Lime sulfur ½ cup, or Cyprex 1T plus Karathane 1T.
Petal fall* When blossom petals have fallen.	Scab, mildew.	Lime sulfur ½ cup, or Cyprex 1T plus Karathane 1T.
Two weeks later	Codling moth,† spider mites, aphids, pear psylla,‡ scab, mildew.	Diazinon 1T plus wettable sulfur 6T.
Three weeks later	Codling moth, apple maggot, spider mites, pear psylla.	Diazinon 1T.
Four weeks later	Codling moth, apple maggot, spider mites, pear psylla.	Sevin 2T plus malathion 2t or diazinon 1T.
Four weeks later Apply this spray to late-maturing varieties only.	Codling moth, apple maggot, spider mites.	Methoxychlor or Sevin 2T plus malathion 2t or diazinon 1T. If Sevin or methoxychlor + malathion or diazinon fail to control mites, add Kelthane 1T.
Post harvest, pears only In fall after all fruit is harvested.	Blister mite, pear psylla.	Diazinon 1T.
Peach		
Dormant Two sprays—December 15 and before January 15.	Leaf curl.	Lime sulfur 1½ cups or Cyprex 3T, or Fixed Copper spray plus a reliable spreader-sticker. Follow manufacturer's directions.
Bloom stage Spray once per week during bloom. Apply first spray when first bloom appears.	Brown rot blossom blight.	Captan 2T, or wettable sulfur 6T, or Cyprex 1T.
One week after blossom petals have fallen	Coryneum blight.	Wettable sulfur 6T.
Summer spray July 10 and 15, and again 3 weeks later.	Peach and prune root borer. Young trees are especially susceptible to injury.	Apply Thiodan (follow label rates) to lower limbs and trunk and around base of tree. Use coarse spray. Avoid spraying fruit. Two applications are vital.
Ten to 14 days before picking	Brown rot, western spotted cucumber beetle (western Oregon only).	Methoxychlor or Sevin 2T plus wettable sulfur 6T. If spider mites become a problem, add malathion 2t 50% E.C. or Kelthane 2T.
After picking (September or October)	Coryneum blight.	Copper spray plus spreader-sticker (follow manufacturer's directions).
Cherry		
Bloom stage Spray once per week during bloom. Apply first spray when first bloom appears.	Brown rot blossom blight.	Captan 2T, or wettable sulfur 6T, or Cyprex 1T.
Early summer When fruit flies emerge—date announced by county agents. Usually when Royal Anns first turn red. If rains occur, add wettable sulfur for brown rot control. If heavy rain follows spraying, repeat spray.	Cherry fruit fly, brown rot.	Use methoxychlor 3T, or Sevin 2T, or diazinon 1T. Apply every 7 to 10 days until harvest. Flies rest on foliage other than cherry, so spray as much of surrounding foliage as practical. (50% methoxychlor or 10% Sevin dust is also effective, but will require a good duster for thorough application.)
Summer sprays (if pests appear)	Aphids, mites, pear-slug.	Malathion 2t 55% E. C. or diazinon 1T 25% E. C.

* If aphids are present, use malathion 1T or diazinon 1T plus wettable sulfur 6T. Malathion or diazinon, when combined with Karathane, may cause injury to apples.

† Codling moth is the adult stage of the insect that causes wormy apples and pears. The larvae have brown heads, and legs are visible. The apple maggot is a white, headless, and legless grub.

‡ Pear psylla attacks only pears. They cause fruit and leaves to be sticky from the honeydew they secrete.

Formulations and Concentrations of Materials to Use in Spray Schedules

Captan	50% wettable powder
Copper spray (tribasic copper sulfate)	53% (approx.) wettable powder
Cyprex	65% wettable powder
Diazinon	25% emulsifiable concentrate
Karathane	25% wettable powder
Kelthane	18½% wettable powder
Lime sulfur	Liquid
Malathion	57% emulsifiable concentrate
Methoxychlor	50% wettable powder
Sevin	50% wettable powder
Thiodan	18.3% or 9.15% emulsifiable con- centrate
Wettable sulfur	Wettable powder
Ziram	76% wettable powder

Prune and Plum

Aphids are a frequent problem, and they may be controlled with diazinon or malathion at the rate of 2t per gallon of water. Treatment is most effective if the materials are applied before aphids cause the leaves to curl. These trees are susceptible to peach and prune root borers. Follow recommended control listed under peaches. If brown rot is severe on maturing fruit, dust with sulfur or spray with wettable sulfur.

Flowering Peach, Prune and Plum

Flowering fruit trees are often attacked by many of the same insects and diseases that damage fruiting varieties. Apply control measures for flowering stone fruit trees as shown for fruiting trees. It is especially important to treat these trees for peach and prune root borers as listed under peach in the spray schedules.

Cherry, Peach, Plum, Prune

Gumming. The disease bacterial canker can cause cankers on the branches and trunk. If the cankers girdle the branch or trunk death of the affected part occurs. Gumming is frequently associated with the cankers. A copper spray (follow manufacturer's directions) applied in September/October will sometimes reduce infections. In addition prune out dead limbs.

Gumming may also result from injuries to the tree—mechanical injury, low temperature injury, insect damage, or fungus disease.

Nuts

It is necessary for commercial growers to control diseases and insect pests of walnuts and filberts. In most instances, it is impractical for the home owner to attempt these control practices on large walnut trees.

Walnuts. Bacterial blight causes black blotches on walnuts. It is impractical to attempt control of this disease with hand sprayers.

Aphids frequently become abundant on walnut trees, and they are a nuisance when the honeydew which they secrete drips on sidewalks or spots the finish of parked cars. On the smaller trees, aphids can be controlled with malathion applied by hand sprayers.

Control of walnut husk fly is difficult to achieve with hand-powered spray equipment, but the use of a malathion spray about August and repeated in about three weeks will reduce infestations. Consult local county Extension offices for more precise timing and the malathion label for dosage and use directions. Good coverage is vital to successful control.

Filberts. Bacterial blight may girdle and kill young trees. The disease may kill many buds and nut-bearing twigs in older trees. Plant disease-free trees. Spray young trees in late summer (August) before the fall rains, with a fixed copper at the rate of 6T per gallon or 3 pounds per 50 gallons of spray. Spray again in the fall when three-fourths of the leaves are off the trees, and in early spring when leaf buds are breaking open.

Aphids also attack filbert trees and can be controlled with malathion, diazinon, or Sevin. Filbert moth larvae cause "wormy" filberts. This insect is controlled by applying Sevin spray or dust about July 10 and again the first week in August. Leafroller larvae may attack filberts in late April and May and can be controlled with Sevin or diazinon.

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