

THE SPRAY SCHEDULE in this leaflet was prepared for the home gardener. It does not meet the exacting requirements of the commercial fruit grower. Number of recommended materials and time of application are a minimum. The materials recommended can be purchased in most localities. Many commercial combinations of fungicides and insecticides are available. These are effective in controlling insects and diseases listed on the label, if used as the manufacturer recommends.

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 DDT, methoxychlor, lead arsenate, wettable sulfur, and ziram tend to settle out. Shake or stir the spray mixture frequently during application.

To reduce costs the recommended materials may be purchased in 3- or 4-pound packages, or in ½-gallon or 1-gallon containers. The materials are relatively stable and can be stored for several years without losing their effectiveness.

If the spray recommendations are followed, the mature fruit will not carry an undue chemical residue. All fruits should be washed before eating.

Lime-sulfur will discolor paint on houses and other buildings. Use a large piece of canvas or cardboard to prevent the lime-sulfur spray or spray drift from getting on adjacent painted buildings.

Spray Schedule

Time of Application	Insect or Disease	Material and Strength*
Apple and Pear		
Early spring (dormant) Just before buds open.	Blister mite, scale, scab.	Lime sulfur. (Do not use lime sulfur around painted buildings. See page 1.)
Pink	Scab, mildew.	Lime sulfur.
Petal fall When blossom petals have fallen.	Scab, mildew, codling moth, aphid, spider mite, pear psylla.	DDT plus malathion, plus wettable sulfur. (Methoxychlor may be substituted for DDT in all apple and pear sprays.)
Three weeks later	Codling moth, spider mite, aphid, pear psylla, scab, mildew.	Same as petal fall.
Three weeks later	Codling moth, spider mite, pear psylla.	DDT plus malathion.
Four weeks later	Codling moth, spider mite, pear psylla.	DDT plus malathion.†
Four weeks later Apply this spray to late-maturing varieties only.	Codling moth, spider mites.	DDT plus malathion.†
Peach		
Dormant Two sprays: December 15 and before January 15.	Leaf curl.	Lime-sulfur or Puratized Agricultural Spray or TAG.
Bloom stage Spray once per week during bloom. Apply first spray when first bloom appears.	Brown rot blossom blight.	Puratized Agricultural Spray or TAG.
One week after blossom petals have fallen	Coryneum blight.	Wettable sulfur.
Summer spray July 10 to 15, and again 3 weeks later.	Peach and prune root borer. Young trees are especially susceptible to injury.	Apply DDT to lower limbs and trunk and around base of tree. For this treatment use ½ cup 50% DDT wettable powder per gallon water.
Ten to fourteen days before picking....	Brown rot, western spotted cucumber beetle (Western Oregon only).	Methoxychlor plus wettable sulfur. If spider mite becomes a problem, add malathion or Kelthane.
After picking (September or October)	Coryneum blight.	Copper sprays 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.	Puratized Agricultural Spray or TAG.
Early summer When fruit flies first 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.	Methoxychlor. Use 3 T 50% methoxychlor wettable powder per gallon of water, or 1½ pounds per 50 gallons of water. Apply every 7 to 10 days until harvest. Flies rest on foliage other than cherry, so spray as much of surrounding foliage as practical. (5% methoxychlor dust is also effective but will require a good duster for thorough application.)
Summer sprays (if pests appear)	Aphids, mites, slugs.	Malathion.

* See table on other side for concentrations.

† If DDT + malathion fails to control spider mites, add Kelthane.

Concentrations of Materials to Use in Spray Schedules

Material	Amount per gallon of water	Amount per 50 gallons of water
DDT	2 T 50% wettable powder	1 pound 50% wettable powder
Kelthane	2 T 18½% wettable powder	1 pound 18½% wettable powder
Lead arsenate	5 T	2½ pounds
Lime sulfur (dormant)	1½ cups	5 gallons
Lime sulfur (pink)	½ cup	1½ gallons
Malathion	2 t 50% emulsion concentrate	1 pint 50% emulsion concentrate
Methoxychlor	2 T 50% wettable powder	1 pound 50% wettable powder
*Puratized Agricultural Spray (dormant)	1 T	1½ pint
*Puratized Agricultural Spray (bloom stage) ..	1 t	½ pint
*TAG (dormant)	1½ t	¾ pint
*TAG (bloom stage)	½ t	¼ pint
Wettable sulfur	6 T	2 pounds
Ziram	1½ T 76% wettable powder	¾ pound

* These mercury-containing fungicides are poisonous—keep them from children and animals. Do not apply these materials after fruit is formed.

T—Tablespoon.

t—teaspoon.

Prune

Susceptible to peach and prune root borers. Follow recommended control listed under peaches. If brown rot severe on maturing fruit, dust with sulfur or spray with wettable sulfur.

Apricot

Very susceptible to coryneum blight on the fruit. For control, spray with ziram one week after petals have fallen. Spray again in September or October with coppers, as recommended under peaches. Apricot trees are often injured by sulfur sprays or dusts.

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.

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 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.

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 1 T per gallon or ¾ pound per 50 gallons of spray. Spray again in the fall when ¾ of the leaves are off the trees, and again in early spring when leaf buds are breaking open. Aphids also attack filbert trees and can be controlled with malathion. Filbert moth larvae cause "wormy" filberts. This insect is controlled by applying lead arsenate sprays about July 15 and again the first week in August. Leafroller larvae may attack filberts in late April and May and can be controlled with DDT.

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