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Cooperative Extension Service
Oregon State University  Corvallis

Spray Schedule for Home Orchards

The spray schedule in this leaflet was prepared for the home gardener. It does not meet the existing 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 DDT, 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. All fruits should be washed 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, with the possible exception of the mercury fungicides, are among the less hazardous to the user. All can be used safely if common sense precautions are observed.

Follow the manufacturer's precautions on the pesticide label. These are not intended to frighten the user, but to impress upon him the need for careful use of pesticides.

- 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

**Insect or Disease**

<table>
<thead>
<tr>
<th>Time of Application</th>
<th>Apple and Pear</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early spring</strong></td>
<td>Bitter mites, scale, scab.</td>
</tr>
<tr>
<td><strong>Favorable</strong></td>
<td>Scab only.</td>
</tr>
<tr>
<td><strong>Just before buds open.</strong></td>
<td>Scab, mildew.</td>
</tr>
<tr>
<td><strong>Pink</strong></td>
<td>Scab, mildew.</td>
</tr>
<tr>
<td><strong>Just before blossom open</strong></td>
<td>Scab, mildew.</td>
</tr>
<tr>
<td><strong>Mature</strong></td>
<td>Scab, mildew.</td>
</tr>
<tr>
<td><strong>One week prior to bloom</strong></td>
<td>Scab, mildew.</td>
</tr>
<tr>
<td><strong>Two weeks later</strong></td>
<td>Codling moth, spider mites, aphids, pear psylla, scab, mildew.</td>
</tr>
<tr>
<td><strong>Three weeks later</strong></td>
<td>Codling moth, spider mites, pear psylla.</td>
</tr>
<tr>
<td><strong>Four weeks later</strong></td>
<td>Codling moth, spider mites, pear psylla.</td>
</tr>
<tr>
<td><strong>Four weeks later</strong></td>
<td>Codling moth, spider mites, pear psylla.</td>
</tr>
<tr>
<td><strong>One and a half months before picking</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>Late June</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>One and a half months after picking</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>Late July</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>Late August</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>September</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
<tr>
<td><strong>October</strong></td>
<td>Brown rot, pear psylla.</td>
</tr>
</tbody>
</table>

**Insect or Disease**

- **Apple and Pear**
  - **Bitter mites**, **scale**, **scab**
  - **Cherry**
  - **Brown rot**, **blossom blight**
  - **Cherry fruit fly**, **brown rot**

**Materials and Amount Per 1 Gallon of Water**

- **Apple and Pear**
  - **Lime sulfur** 1T
  - **DDT** or **methoxychlor** 2T
  - **Sevin** 2T
  - **Methoxychlor** 3T
  - **Malathion** 2T

**Time of Application**

- **Early spring**
  - **Before buds open**
  - **Favorable**
- **Favorable**
  - **Just before buds open**
  - **Pink**
  - **Just before blossoms open**
  - **Mature**
- **One week prior to bloom**
  - **Two weeks later**
- **Three weeks later**
- **Four weeks later**
- **One and a half months before picking**
- **Late June**
- **One and a half months after picking**
- **Late July**
- **September**
- **October**

**Insect or Disease**

- **Apple and Pear**
  - **Brown rot**, **blossom blight**
  - **Cherry**
  - **Brown rot**, **blossom blight**
  - **Cherry fruit fly**, **brown rot**

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- **October**
Formulations and Concentrations of Materials to Use in Spray Schedules

<table>
<thead>
<tr>
<th>Material</th>
<th>Formulation and Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captan</td>
<td>50% wettable powder</td>
</tr>
<tr>
<td>Cyperos</td>
<td>65% wettable powder</td>
</tr>
<tr>
<td>DDTH</td>
<td>30% wettable powder</td>
</tr>
<tr>
<td>Dithane</td>
<td>25% miscible concentrate</td>
</tr>
<tr>
<td>Karathane</td>
<td>25% wettable powder</td>
</tr>
<tr>
<td>Ketone</td>
<td>18% wettable powder</td>
</tr>
<tr>
<td>Lime sulfur</td>
<td>Liquid</td>
</tr>
<tr>
<td>Malathion</td>
<td>50% miscible concentrate</td>
</tr>
<tr>
<td>Methylchlor</td>
<td>9% wettable powder</td>
</tr>
<tr>
<td><em>Parathion 10 Spray</em></td>
<td>Liquid (10% phenylamidinepëro disenylate)</td>
</tr>
<tr>
<td>Sevin</td>
<td>50% wettable powder</td>
</tr>
<tr>
<td><em>TAG</em></td>
<td>Wettable powder</td>
</tr>
<tr>
<td>Wetable sulfur</td>
<td>Wettable powder</td>
</tr>
<tr>
<td>Ziram</td>
<td>70% wettable powder</td>
</tr>
</tbody>
</table>

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

Prune and Plum

Aphids are a frequent problem, and they may be controlled with diazinon or malathion at the rate of 20 pounds 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 plum curculio borers. Follow recommended control listings. Apply the materials with hand sprayers.

Peaches and Nectarines. Aphids frequently become abundant on walnut trees, especially where there are a nuisance when the honeydew which they excrete drips on sidewalks or spots the finish of parked cars.

Worms. Nectarines and peaches. If brown rot is severe on maturing fruit, dust with sulfur or spray with wettable sulfur.

Apricot

Very susceptible to Corruptoria blight of apricot. For control, spray with captan in May or June after petals have fallen. Spray again in late July or early October with coppers, as recommended under peaches. Apricot trees are often injured by sulfur spray or dusts.

Peach twig borer may attack apricots, peaches, and prunes, causing die-back (flagging) of twigs and wormy fruit. This insect can be controlled by applying DDTH, Sevin, or diazinon just before blossoming or at petal fall.

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.

This circular was prepared by Lain C. MacServe, Extension plant pathology specialist and E. W. Evers, Extension entomology specialist, Oregon State University, Corvallis.