

STONE FRUIT & NUT HOME ORCHARD PEST MANAGEMENT CHART

For Central Washington -- Revised **May, 2007**

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Choose non-chemical management as your first choice. Some pests may require pesticide sprays to provide supplemental control. Homeowners must refer to the pesticide label before they purchase and before they apply a pesticide product to confirm that the product may be applied to backyard (home garden) fruit trees.

PEST PROBLEM	CROPS	PRODUCTS	MANAGEMENT GUIDELINES AND APPLICATION TIMINGS
<p>Spider or Red Mites Mite populations grow and may peak by late spring or summer. Severe mite feeding on the leaf surface can cause leaf yellowing and premature drop.</p>	<p>Apricot, Cherry, Peach, Plum</p>	<p>Horticulture Petroleum Oils Insecticidal Soaps</p>	<p>In most seasons, mites are controlled by natural enemies such as predatory mites. If mite problems are experienced in previous season, apply horticultural oils at the dormant to delayed dormant (February & March) to control over wintering eggs. During the growing season, conserve natural enemies by avoiding broad-spectrum insecticides. Insecticidal soaps may require multiple applications and thorough coverage especially on undersides of leaves. Avoid tree stress, especially improper irrigation. Mites can be washed off trees with several applications of a strong stream of water or insecticidal soaps.</p>
<p>Aphids Aphid populations can build up through spring months. Aphid feeding results in sticky honeydew, leaf curling, shoot malformation and even tree stunting.</p>	<p>Cherry, Apricot, Peach, Plum, Walnut</p>	<p>Horticultural Petroleum Oils Insecticidal Soaps or Azadirachtin (Neem Extract) or Malathion</p>	<p>Aphid problems are often associated with vigorous growth on young trees. If aphids were a problem in previous season, apply horticultural oils at the dormant to delayed-dormant period to control over wintering aphid eggs. In most seasons, aphids are controlled by natural enemies like lady beetles and lacewings. Conserve natural enemies by avoiding broad spectrum insecticides. Most aphid species leave fruit trees for summer plant hosts. Homeowners can prune out heavily infested shoots and water sprouts to reduce aphid populations. During the growing season, apply insecticide sprays only when aphids are present. For best results, apply insecticides before infested leaves curl up. Homeowners may be able to wash aphids from tree with strong stream of water before infested leaves curl up. Note-- Malathion is no longer registered for use in Walnuts.</p>
<p>Scale Insects Scale insect feeding can result in sticky honeydew and may devitalize and even kill twigs and branches.</p>	<p>Cherry, Apricot, Peach, Plum</p>	<p>Horticultural Petroleum Oils</p>	<p>Scale insect populations often take several years to build to damaging levels. Prune out and destroy localized infestations. Some scale insects can be rubbed off by hand. If scale problems are experienced in previous season, apply horticultural oils at the dormant season to control over wintering scales.</p>
<p>Bacterial Canker Elliptical cankers on trunk and branches with substantial gumming that can girdle and kill branches. Dead buds and leaf spots may also occur.</p>	<p>Apricot, Cherry, Peach, Plum</p>	<p>Fixed Copper</p>	<p>This disease can be a serious problem in cool, wet conditions. Never prune during wet, moist weather. Avoid getting water in tree canopy. Properly prune tree to open canopy to sun and air penetration. Apply copper during the dormant stage in late winter before the buds start to swell. Spray trunk, limbs and twigs thoroughly. Apply copper again at leaf fall in autumn. Prune out and destroy infected branches during dry weather. Be sure to cut well below visible cankers and sterilize pruning shears between cuts.</p>
<p>Cherry Fruit Fly The immature stage, or maggot, will bore into the fruit of the cherry as cherry ripens.</p>	<p>Cherry</p>	<p>Malathion or Spinosad</p>	<p>Apply every 10 days beginning when cherry fruit begins to soften and show yellow coloration (mid to late May) or when yellow sticky traps capture first adult Cherry Fruit Fly. Be sure to follow the pre-harvest interval on insecticide products.</p>
<p>Peachtree Borer The whitish larvae of this moth burrow in to the base of host trees and feed on the cambium. Feeding can girdle the tree base, especially on young trees.</p>	<p>Plum, Cherry, Peach, Apricot</p>	<p>Spinosad</p>	<p>Keep base of tree free of weeds and injuries to the bark. In the home orchard, it may be quicker and cheaper to control this pest by digging out the larvae with a sharp knife or kill it with a short wire. Apply pesticide in the first week of July and again the first week of August. Use a coarse spray to cover the bark of lower limbs, branch crotches, trunk and base of tree.</p>

<p>Powdery Mildew A gray-white fungus that colonizes fruit and leaf buds, leaves and even entire shoots. Leaves may curl, distort, brown, become brittle and die. Mildew causes fruit surface russetting.</p>	Cherry, Peach	Lime Sulfur Or Wettable Sulfur	Proper pruning and tree spacing to provide good air circulation and minimize high humidity. Homeowners can also plant less susceptible varieties. Homeowners can prune and destroy the whitish infected buds and shoots early in spring to prevent fruit infection later in the season. Apply fungicides at bud cluster when buds start to open and at the pink stage just before blossoms open.
<p>Peach Leaf Curl A fungal disease that causes young leaves to turn yellow to reddish. Leaves and shoots become thick or crisp and covered with white coating of fungal spores.</p>	Peach	Fixed copper or lime sulfur Fixed copper or oil and lime sulfur	Apply before buds swell in February. Remove and destroy infected leaves or shoots when they first appear before spores form. Apply again in late November or early December. Lime sulfur product comes as a mix.
<p>Coryneum Blight (AKA Shothole) A fungal disease that can cause twig cankers, dead gummy buds, and lesions on leaves and fruit. Lesions on leaves can dry out and drop off giving leaves a "shothole" appearance.</p>	Cherry, Peach, Apricot, Plum	Fixed Copper or Lime Sulfur Captan (+Malathion) Fixed Copper or Captan (+Malathion)	Apply in late winter as buds begin to swell. Do NOT use lime sulfur on apricots. Proper pruning and tree spacing will maximize good air circulation and minimize leaf moisture. Keep irrigation water from contacting tree canopy. Apply at delayed dormant in early spring when flower buds just begin to open. Apply again when ¾ of blossoms have dropped from tree. Prune out and destroy dead buds and cankered twigs. Apply in October before autumn rains.
<p>Peach Twig Borer Brown and cream-ringed caterpillars that bore into twigs and shoot terminals early in the spring. Will bore into shoots and ripening fruit later in the season.</p>	Peach, Apricot, Plum	Horticultural Petroleum Oil Or Spinosad	Apply in early spring at the dormant to delayed dormant stage. Early in the season, cut out and destroy flagging twigs to prevent larvae from infesting fruit later in the season. Apply at petal fall. Apply Spinosad in evening to avoid bee poisoning.
<p>Earwig Earwigs chew holes in leaves and may stunt shoot growth. Earwigs will also feed on ripening fruit, leaving shallow, scalloped areas on the surface.</p>	Apricot, Peach	Carbaryl	Keep weeds from growing around the base of trees. Trap earwigs with "Tanglefoot Stickum" applied on top of tightly wrapped plastic wrap at the base of trees. Earwigs can also be trapped in moist newspaper rolls placed in the crotches of trees and opened each morning over a pail of soapy water. Carbaryl can be sprayed on trunks and crotches of trees in early spring when earwig activity is first observed.
<p>Walnut Husk Fly The immature stage, or maggot, will feed on the walnut husks and may stain and reduce kernel quality and flavor.</p>	Walnut	Spinosad	Adult flies may be trapped with yellow sticky traps and molasses baits. Timely applications of sprays are important. Control is directed against adults to prevent egg-laying. Apply the first treatment within 10 days after catches of flies show a steady increase over a 3-day period, probably early to mid-August. Refer to WSU Publication EB0904 on the Walnut Husk Fly for information on trapping. A second application may be needed 3 to 4 weeks later. Do not apply after the husks have split.
<p>Special Note: Retail sales of Diazinon ceased on 12/31/2004. Home gardeners may use of their stock of Diazinon as per labeled instructions.</p>			

Please note that in the State of Washington, homeowners are legally responsible for controlling the spread of horticultural pests and diseases. If you are unable or unwilling to accept this responsibility, please consider replacing fruit trees with other tree and plant varieties.

For further information on Home Orchard Pest Management do not hesitate to contact your local Master Gardener Program at your WSU Extension Office. For Benton/Franklin County, call 509-735-3551. For Yakima County call 509-574-1600.

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