

APPLE & PEAR HOME ORCHARD PEST MANAGEMENT CHART

For Central Washington

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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 can build up by late spring or summer. Mite feeding on the leaf surface can cause yellowing and premature leaf drop. Webbing may be present on leaves and shoots.</p>	Apple, Pear	Horticulture Petroleum Oils Insecticidal Soaps	<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 stage (February & March) to control overwintering mite eggs.</p> <p>During the season, conserve natural enemies by avoiding broad-spectrum insecticides. Avoid tree stress, especially improper irrigation. Mites can be washed off trees with applications of insecticide soaps.</p>
<p>Aphids Aphid populations can build up throughout spring months. Aphid feeding results in sticky honeydew, leaf curling, shoot malformation and even tree stunting.</p>	Apple, Pear	Horticultural Petroleum Oils Insecticidal Soaps or Azadirachtin or Malathion Imidacloprid	<p>Aphid may be associated with vigorous growth on young trees. If aphids were a problem in previous season, apply horticultural oils at the dormant to delayed-dormant to control overwintering aphid eggs.</p> <p>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. Homeowners can wash aphids from tree with strong stream of water. For best results, apply products before infested leaves curl up.</p> <p>This systemic product is applied to the ground around the base of the tree. Best applied in the autumn if aphids become a problem during the growing season. One application provides 12-month control.</p>
<p>Scale Insects Scale insect feeding can result in sticky honeydew and can devitalize and kill twigs and branches. Scale can attach to fruit surface causing blemishes.</p>	Apple, Pear	Horticultural Petroleum Oils Imidacloprid	<p>Scale insect populations can take years to build to damaging levels. If scale problems are experienced in previous season, apply horticultural oils at the dormant season to control overwintering scales.</p> <p>This systemic product is applied to the ground around the base of the tree. Best applied in the autumn if scales become a problem during the growing season. One application provides 12-month control.</p>
<p>Pearleaf Blister Mite By early summer, blister mite feeding results in pale green to reddish blisters forming on the leaf surfaces, premature leaf drop and scars on fruit surfaces.</p>	Pear	Horticultural Petroleum Oils or Lime Sulfur	<p>In most seasons, blister mites are controlled by natural enemies or by dormant applications for other pests; however, they can cause damage in unsprayed or abandoned young trees. If blister mites were a problem in the previous season, apply oil or lime sulfur in the early spring just prior to bud swell.</p>

<p>Pear Psylla</p> <p>Psylla is an annual pest in pear. Psylla feeding results in copious amounts of honeydew, can cause leaf burning, defoliate trees, fruit drop and stunt tree growth.</p>	<p>Pear</p>	<p>Horticultural Petroleum Oil or Kaolin Clay</p> <p>Insecticidal Soaps or Azadiractin or Kaolin Clay</p>	<p>Psylla are highly mobile and will find backyard trees in regions where commercial pear production occurs. Apply oils at the dormant stage as buds begin to swell and again at delayed dormant, just as buds start to open. Apply Kaolin a few days in advance of bud swell and delayed dormant so that a white coating covers foliage where egg-laying occurs.</p> <p>There are many predators and parasites that will control low infestations of pear Psylla. When possible, avoid stimulating flushes of growth (prune lightly, proper fertility). Remove water sprouts and suckers. Apply these products as needed. Add horticultural oil to Azadiractin for improved Psylla control.</p>
<p>Powdery Mildew</p> <p>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>	<p>Apple</p>	<p>Lime Sulfur or Wettable Sulfur</p>	<p>Homeowners can plant less susceptible apple varieties. Homeowners can prune and destroy the whitish infected buds and shoots early in spring to prevent fruit infection. Apply sulfur fungicides at bud cluster when buds start to open and at the pink stage just before blossoms open.</p>
<p>Fire Blight</p> <p>A bacterial disease where infected leaves, shoots and fruit develop water-soaked appearance. Shoots, twigs and branches wilt and blight. Leaves die, but remain attached to branches. This disease can kill young trees.</p>	<p>Apple, Pear</p>	<p>There are no effective products for homeowners</p>	<p>Fireblight is the most destructive disease of pears and many of the newer apple varieties. Usually only a problem when we experience very warm and wet spring conditions during tree bloom. Blight resistant or tolerant varieties exist. Homeowners must recognize and immediately remove diseased branches in late spring and early summer. Cut branches 15-18 below visible symptoms of blight and sanitize pruning between cuts.</p>
<p>Codling Moth</p> <p>This is the key insect pest in apples and pears in Washington.</p> <p>The immature stage of this moth is the worm in the apple and can be distinguished from other worms by its habit of boring directly to, and feeding on, the seeds at the core of the apple or pear.</p>	<p>Apple, Pear</p>	<p>Malathion</p> <p>Spinosad</p> <p>Kaolin Clay</p>	<p>Codling moth is highly mobile and will establish itself annually on untreated backyard apples. Homeowners need to routinely (weekly) scout apples on trees for signs of worm infestation. Remove and destroy infested fruit. Pheromone baited traps will remove male moths only.</p> <p>For Malathion and Spinosad, apply every 10 -14 days starting when pheromone traps indicate that adult moths are present or about 7 to 10 days after all flower petals have fallen from the tree. Be sure to follow the pre-harvest interval on pesticide product selected.</p> <p>Kaolin Clay acts as a repellent. Apply at petal fall and keep foliage and fruit coated. This may require reapplication every 7 -10 days until harvest. The white coating on the fruit can be washed off with water and a soft brush.</p>
<p>Apple Maggot (Apple Fruit Fly)</p> <p>The immature stage, the maggot, tunnels within the flesh of the apple often just beneath the apple skin.</p>	<p>Apple</p>	<p>Kaolin Clay</p>	<p>This pest is an invading pest in Western Washington and is not commonly encountered in Central Washington. Homeowners who suspect they have Apple Maggot should contact their Extension Office immediately for confirmation. For more information, please refer to EB1928 on <i>Protecting Backyard Apple Trees From Apple Maggot</i>.</p>

		Spinosad	Apply Spinosad every 10 days starting in mid-June and continuing to harvest.
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*All products are listed as active ingredients; often there are multiple trade names for each active ingredient so homeowners must refer to product label. For a listing of trade name products available to homeowners in Washington State, consult Master Gardeners or visit this website: <http://pep.wsu.edu/hortsense/>.

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.

*WSU Extension programs and employment are available to all without discrimination.
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