

Fruit Trees

Gray Barn Green Thumb Guide



Fruit Tree Cultivation

Prevention is a key strategy for a healthy garden. Taking care of a few things now can prevent many problems later on. Following are a few tips for growing healthy fruit trees here in the Pacific Northwest.

- **Plant the right tree in the right place.** Choose trees that are best adapted to our Northwest environment. Trees poorly adapted spend energy struggling to survive. They don't produce abundant fruit and are more vulnerable to attack from pests and disease. The Gray Barn has done this job for you, we only sell trees that will be successful in our area.
- **Plant trees in full sun** with good air circulation and at the proper depth. Take advantage of sun pockets or sheltered areas in your yard.
- **Fertilize with the correct amount.** Excess nitrogen promotes leaves at the expense of fruit.
- **Water properly,** not too much or too little. Keep well-watered when fruit is maturing.
- **Always keep on the lookout for signs and symptoms of problems.** Identification is important before any action is taken. Orchard cleanup will limit the advance of harmful organisms. In the autumn, rake up and remove fallen leaves. Pick up and remove dead fruit, both fallen and still attached. Prune out and remove any dead twigs and branches. After cleanup is complete, spray a dormant oil and fungicide to prevent infection next spring.

Planting

Plant bare root trees when they are fully dormant---the earlier the better. Keep the roots of the bare root tree covered or moist until planting time. Prune off any damaged roots. Form a small mound of soil and gently spread the roots over it. Back fill with native soil and compost. Be sure to keep the graft union above the soil level. Gently press down on the soil, removing any air pockets. Water well.

Pollination

Pollination is the transfer of pollen between flowers to set fruit. Cross pollination is recommended for most apples and pears and many sweet cherries and plums. Most peaches, nectarines and sour cherries are self-fertile. The act of pollination depends mostly on bees.

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Pollen compatible trees should be within 100 feet of each other to ensure adequate pollination. The bloom periods of both trees must overlap enough to provide at least several days for cross-pollination to take place. Most white flowering crabapples are excellent pollinizers for apple trees and they are often used in orchards because of this and their abundant, long lasting bloom.

Pears and Oriental Pears are genetically compatible, so they can cross-pollinate just the same as any varieties whose blooms overlap. Keep in mind however that Oriental pears tend to bloom earlier and not all European pears are suitable pollinizers.

Pruning

Pruning is essential in a young fruit tree. It will encourage early fruit production and help develop an optimum structure for supporting future crops. Pruning of mature trees is aimed at producing new growth of fruiting wood. Pruning fruit trees is covered in great detail in many publications. A few basics essentials are:

- Start out young trees with a sound framework of scaffold limbs. Spreaders or weights can be used to position the limbs.
- Maintain good exposure to light throughout the tree.
- Don't let the top of the tree outgrow and shade the lower limbs.
- Use thinning cuts that remove entire shoots, branches, or limbs.
- Avoid heading cuts that remove only a portion of the branch and often result in re-growth of a cluster of new shoots that may shade out other parts of the tree.
- Prune at the right time for each fruit. For example, do not prune apricots during the dormant season; they must be pruned at least six weeks before the first rains come to decrease fungal infection.
- When in doubt, thin it out!

Thinning

Thinning is the removal of small fruit or blossoms to improve the size and quality of the fruit. It also helps ensure an adequate crop the next year. Some general guidelines are:

- Thin early for maximum effect, when fruits are marble size.
- Remove the smaller fruits and leave the larger ones, because the smaller fruit have fewer cells and will remain relatively smaller, even after thinning.
- Remove fruit with disease spots, weather damage, or other defects.

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- Aim for an even spacing as much as possible. Keep in mind the size of fruit at maturity and leave room to avoid overcrowding.
- Adapt all thinning to the type of fruit being thinned.

Insect Pests of the Northwest

- **Aphids** are small sucking insects that cause damage to leaves, making them discolored or distorted by puckering or curling. They can also be disease vectors. They produce honeydew a sweet sticky substance which may become covered with sooty mold. Aphids can be controlled by washing with a strong stream of water, encouraging natural predators such as ladybugs and hand-wiping or pruning to disturb small localized infestations. Neem oil is also effective.
- **Codling Moth**—Adult moths are seen flying around trees in May through July. They lay their eggs on leaves or fruit and the larvae feed on the fruit until they form their cocoons in the loose bark of the tree or in the leaf litter at the base of the tree. They overwinter in a thick, silken cocoon until the adult moth emerges during the spring apple bloom. Controls include good sanitation, bagging the fruit, pheromone traps and trunk banding. Other options are releasing parasitic wasps and/or spraying with horticultural oil.
- **Apple Maggot**—This small fly lays its eggs inside the fruit. As the larvae eat they create irregular brown tunnels in the flesh of the fruit. Bagging is effective if the bags are placed before the adult flies emerge in the spring. Place bags on un-infested fruit 4-6 weeks after petal fall, when the fruit is approximately dime-sized.
- **Spotted Wing Drosophila**—unlike other fruitflies that eat ripened fruit, this pest attacks healthy fruit as it ripens on the plant. Most soft-skinned fruits are vulnerable, including berries, cherries, peaches and plums. Fruit is damaged by females laying eggs in the fruit and the larvae eating the fruit. Use apple cider vinegar traps for control.

Common Diseases

- **Apple and pear scab** are fungal diseases that infect new leaves and fruit with dark scabby patches. Wet springs provide conditions ripe for scab. Orchard cleanup at the end of the growing season is essential to reduce the number of overwintering spores, as well as irrigation that keeps tree foliage dry. Resistant varieties of both pear and apple are available.

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- **Peach leaf curl** is a fungal disease that affects both peaches and nectarine. Spores are spread by rain. After bloom, leaves thicken and pucker with red blisters. Repeated infections weaken trees and reduce fruit set. Pruning affected shoots does not provide any control. Dormant or fungicidal sprays applied at the end of the growing season help control this disease the next spring.
- **Powdery Mildew** forms a gray or white fuzz over leaf surfaces, and sometimes on flowers, fruits and shoots as well. Prevention is the best strategy. Trees need to be planted in full sun and have good air circulation through their canopies. Keep foliage dry but during the hot summers wash off occasionally to remove powdery mildew spores.
- **Brown Rot** infects all of the stone fruits, including cherries. It begins as soft brown spots that quickly turn into ugly, powdery masses of spores. The damaged fruit stays on the tree causing infection in next year's crop. Good cleanup each year is essential. Remove all infected leaves and fruit from the surrounding area.

Resources

[The Home Orchard Handbook](#) by Cem Akin and Leah Rottke, 2011

[Fruit Trees in Small Spaces](#) by Colby Eierman, 2012

www.tfrec.wsu.edu

<http://pep.wsu.edu/hortsense/>

[Fruit Handbook for Western Washington](#), Washington State University Extension, by G.A. Moulton and J. King

[Crop Protection Guide for Tree Fruits in Washington](#), Washington State University Extension

<http://www.ces.ncsu.edu/depts/hort/hil/ag29.html>

<http://www.ext.colostate.edu/pubs/garden/07003.html>.