Pruning Fruit Trees
By Steve Castagnoli

One of the common questions for anyone growing tree fruits is, when is the best time to prune fruit trees? Typically, most fruit tree species are pruned during the dormant season, perhaps in large part because this is the most practical time to do the work without interfering with other orchard operations or damaging fruit.

Dormant pruning stimulates new growth that forms the long-term fruit-bearing framework of a newly planted or young tree. It also, however, tends to delay fruiting. In a backyard or home orchard situation, you may try to minimize dormant pruning by using summer pruning instead to remove unwanted growth while encouraging early fruiting. Cherries, which generally have a long season after harvest, are more commonly pruned in the summer time than are bearing apples or pears. This also helps avoid infection by a potentially serious bacterial disease, known as bacterial canker, which is favored by wet conditions.

If you have passed through any of the fruit growing districts of the Mid-Columbia lately, you have probably noticed quite a bit of pruning going on. Because of its stimulatory effects, pruning may leave fruit trees more susceptible to winter freeze injury. In the lower Hood River Valley, where winter damage is less likely to occur, many tree fruit growers start pruning as early as December. In the upper valley, it is more common to wait until February when the chances for severe winter weather are lower. If winter injury is a concern where you are located, it seems advisable to delay pruning as late as possible to minimize the possibility of damage.

Pruning should be done with a purpose. In commercial orchards, pruning is done to create maximum fruit bearing surface, to create access for workers to thin and harvest fruit, to promote good spray penetration, to renew fruiting wood, and to maintain growth or vigor in all parts of the tree. Pruning should help allow sunlight to enter and air to circulate throughout the tree canopy. Although home orchardists are not necessarily concerned with maximizing fruit production, many of these principles still apply.

Pruning is also a way of regulating the fruit load on the tree from season to season. This is particularly important for many apple varieties that tend toward alternate or biennial bearing. During dormant pruning, flower buds that represent potential fruit are removed along with any wood that is cut off. The rule of thumb is to prune more following a light crop year and less following a heavy crop year, thereby evening out the fruit production from year to year.

It is important to remember that pruning is a dwarfing process. Some types of pruning cuts, however, usually stimulate growth near those cuts. These statements may seem contradictory, but they are not when you consider the total size of the tree. An un-pruned tree will ultimately be larger than a pruned tree, but it may have a different form and structure.

Most fruit tree species require annual pruning for consistent production of high quality fruit. Neglected trees that have not been pruned for several years can be rehabilitated but often require extensive pruning to remove unproductive branches. Typically, this should be approached as a several year process, with gradual removal and replacement of the unproductive branches.
One primary goal of pruning fruit trees should be maintaining tree size and structure for ease of management. Smaller trees require less ladder work for pruning, fruit thinning, and picking. Smaller trees are also more easily and effectively sprayed for pests and diseases. When planting new trees, consider choosing trees grafted on dwarfing rootstocks. They are much easier to manage than are large standard size trees.

Another common question is, when is the best time to apply dormant sprays for fruit trees? Dormant sprays are typically applied in late February and March. Now is a good time to start planning your control program. If you do not carry out a program for managing pests, you may be contributing to the spread of injurious pests to nearby commercial orchards. There are numerous insect pests and diseases that may be harbored in unmanaged or under-managed trees and spread from there to commercial blocks. In the Mid-Columbia region, three of these pests, codling moth, apple maggot, and western cherry fruit fly, are of particular concern.

Tree fruit growers carry out regular management programs for each of these pests, but their control practices may become less or not at all effective when there are unmanaged trees nearby. Western cherry fruit fly and apple maggot are quarantine pests. Shipment of fruit from areas with infestations of these insects may be restricted or prohibited, resulting in additional loss to the commercial grower.

Furthermore, increasing numbers of pear and apple growers in the Mid-Columbia area are adopting a non-chemical approach to managing codling moth, which is known as pheromone confusion or mating disruption. Unmanaged or under-managed pear and apple trees can serve as reservoirs of mated female codling moths that ruin the efforts of growers employing environmentally friendly methods of pest management.

If you have fruit trees in your yard or landscape that are maintained strictly for shade or aesthetic value, you should consider replacing those trees with more appropriate plants that do not harbor economically important pests. If you do intend to maintain fruit trees for fruit production, it is critical that you prevent the spread of injurious pests to commercial orchards. OSU and WSU Extension Service publications can provide you with more information on care and maintenance of fruit trees whether you are a commercial producer or a backyard grower. These are available from your local Extension Service Office and on the World Wide Web at http://eesc.orst.edu/.