

Summer Pruning of Apple Trees

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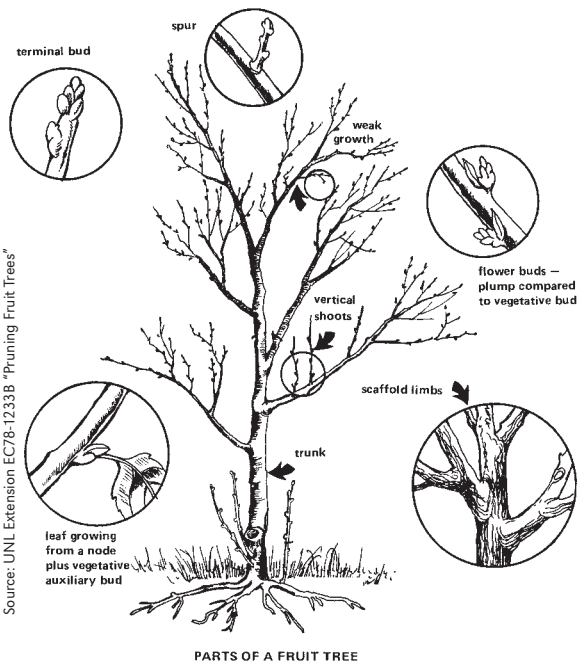
The art of pruning apple trees is well understood by most fruit growers. Pruning the orchard is necessary and has a direct effect on the aims of a successful orchard management.

Most pruning should be done during the dormant season and before spring growth. Summer pruning is sometimes needed, especially in young trees. All pruning has a dwarfing effect on the tree, but summer pruning is more dwarfing. Summer-pruned trees, with the resulting reduced-leaf area, make less root growth than trees not summer pruned. The net result is the tree as a whole, makes less growth than it would have had the pruning been done in the dormant period. The dwarfing influence of summer pruning is most pronounced in early summer when the tree is completing its branch extension growth. Dwarfing becomes progressively less after this period and may actually be insignificant two to three weeks before leaf fall.

Summer pruning is ideally adapted to intensive orcharding, but it has only recently gained significant acceptance. This partially is due to a misunderstanding of the nature of summer pruning and how it can be used to control growth and fruiting.

Generally, summer pruning is confined to one year-old shoots. On shoots headed during the dormant season, two or three vigorous shoots usually develop from the buds immediately below the cut. One or two of these shoots can be removed entirely, early in the season, to direct growth into a single shoot. This should be done while shoots are only a few inches long so little leaf area is removed. If shoots are headed by pinching, rather than complete removal, regrowth will take place and pinching will be of little value.

A lack of development of lateral buds on the previous season's shoots, a condition known as blind wood, is a characteristic of some varieties. During the first year or two, delayed



Source: UNL Extension EC78-1233B "Pruning Fruit Trees"

heading, which may be considered as a type of summer pruning, will often force shoots from the blind wood area. This should not be carried on beyond the first few years and should only be practiced on the most vigorously growing trees.

Typically, summer pruning is a selective training procedure aimed at weakening vegetative growth while promoting flower initiation. It consists of cutting current season's shoots back to three to five mature leaves after they have grown about a foot and about the diameter of a pencil, and have started to become woody at the base. Flowering spurs often develop at pruning cut sites as a result of weakening the vegetative growth, but flowering is also increased throughout the tree because of better light penetration.

An alternative procedure, developed in France by L. Lorette about 55 years ago, is to cut the shoot about 1/4-inch to 1/2-inch above its base, leaving a short stub. This ensures regrowth will come from the less, well-developed buds near the shoot base. Growth from these buds is weaker and more readily transformed into fruiting wood. The Lorette method is preferable to leaving longer stubs, which not only produce more regrowth, but are usually stiffened in an upright position as a result of the pruning.

The best time for pruning

current season shoots is at the time of, or just before, terminal bud formation. Summer pruned spur-type trees grow less than standard types. The dwarfing resulting from summer pruning is proportional to the percentage of the total leaf area removed and should not be carried to extremes. Weak trees do not respond well to summer pruning and are often stunted.

Summer pruning can be used to good advantage in intensive orchards where control of vigorous vegetative growth is difficult. In such cases, dormant pruning tends to aggravate the problem by increasing vigor. In moderately vigorous trees, summer pruning may be desirable to weaken vegetative growth at a specific point in the tree. This would apply to upright vigorous shoots, which originate on the main scaffold limbs of central leader trees, or to vigorous growth in the top of the tree that is gaining dominance over the lower limbs.

Pruning early in the summer (eight weeks after bloom) has caused flower initiation in the same year indicated by an increased bloom the following year. However, it seems, in some cases, summer pruning has a cumulative and delayed effect on flowering with a lag of almost two years between summer pruning and its tangible effect on flowering. Experience on other apple areas of the country shows summer pruning can be conducted as a once-over operation each year anytime from eight weeks after bloom until mid-August, although the short-term response is influenced to some extent by timing. The continuation of a summer pruning program on a yearly basis is more important than the exact timing.

In summary, summer pruning can accomplish the following: (a) reduce the vigor of the tree or dwarf it, (b) promote development of side shoots, (c) favor flower bud development and (d) direct growth into selected shoots.

Keep the Vegetables Coming with a Fall Garden

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Planting vegetables this summer for fall production is an excellent practice. Late plantings of cool- and warm-season vegetables can extend the harvest long after spring-planted crops have ceased production.

Most cool-season vegetables grow as well or better than those planted in the spring, as they mature during shorter, cooler days. Flavors of vegetables maturing in the cool, crisp days of autumn often are sweeter and milder than those grown during hot summer weather. This especially is true for cold crops, such as broccoli, Brussels sprouts, cauliflower and kale. (Plants such as lettuce and spinach that tend to bolt or develop flower stalks in the late spring, stay productive due to the shorter day lengths.) For those who enjoy gardening, extending the harvest as long as possible helps ward off the dreariness of cloudy autumn days.

Available space, grower preference and the intended use all influence the crop choices. Heat-loving crops, such as tomatoes, peppers, eggplant, sweet potatoes, okra and New Zealand spinach will continue to produce until frost. Other heat-loving vegetables, including snapbeans, cucumbers and summer squash, often slow or quit producing in late summer. Mid-summer plantings of these vegetables will provide vigorous plants from which to harvest up to or, with protection beyond the first frost. In Nebraska, the first frost often is followed by a few weeks of good growing weather, providing an even longer harvest.

Some gardeners like the idea of serving fresh garden tomatoes for Thanksgiving dinner. Mid-summer plantings of short-season tomato cultivars can provide vigorous, robust plants from which to harvest high quality fruit. Tomatoes harvested just before frost from healthy plants tend to keep better in long-term storage than fruits salvaged from older, diseased plants.

While semi-hardy vegetable plants can tolerate light frosts, hardy vegetables will continue to grow until temperatures drop to about 20 degrees. Although the tops of semi-hardy root and tuber crops may be killed by hard freezes, the edible portion will store well in the ground if mulched with a heavy layer of straw. Cool-temperature-adapted crops are excellent for fall gardening because they continue to grow well into autumn and can be harvested after many tender plants have been killed by frost.

Semi-hardy vegetables include beets, Chinese cabbage, collards, potatoes, mustard, radishes, spinach, Swiss chard, Bibb lettuce, leaf lettuce and green onions. Hardy vegetables include cabbage, carrots, broccoli, turnips, cauliflower, rutabagas, Brussels sprouts and kale.

For a fall garden, select the shortest-season cultivars available to ensure harvest before killing frosts arrive. Look for cultivars labeled "early season" or compare the number of days to harvest and select those with the fewest days to maturity. This information usually is printed on the seed packet or in the cultivar description in seed catalogs. Plan seed purchases for the fall when planning the spring garden. Seeds can be purchased either locally or from mail-order companies. However, quality seeds disappear from garden stores in mid- to late-summer when seed companies remove their displays. Always store seeds in a cool, dry location.

Poison Ivy

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contaminating other clothing.

Vines growing on trees can be difficult to pull out of the ground because their roots may be entangled with the tree's roots. Sever the vine at the base and carefully pull it out of the tree. Glyphosate (Roundup or KleenUp), a non-selective, translocated herbicide, can be applied to the new shoots that will soon emerge from the base of the old plant. This herbicide is most effective if applied to actively growing foliage. Another herbicide that may be used is triclopyr (Brush-Be Gon Poison Ivy Killer). Poison ivy is difficult to control even with herbicides. Neither glyphosate nor triclopyr will provide complete control from a single application and repeat applications to treat regrowth may be necessary. Other herbicide brands or formulations may be found at your local garden center. Be sure to read the label to ensure that poison ivy is listed on the label, then follow the

manufacturer's directions.

When poison ivy is found in the midst of your prized ornamental plants, special care should be taken to eliminate it. Paint the individual leaflets with a non-selective herbicide like glyphosate to avoid harming desirable plants.

Things to Know

The blistering rash caused by poison ivy is the direct result of contact with the oily toxicant, known as urushiol. Urushiol is found in resin ducts within the plant's phloem. These ducts are found throughout the plant, including the roots, stems, bark, leaflets and certain flower parts. The plant has to be crushed, broken, or in some way injured to release the resin.

Once urushiol is released, it can find its way to your skin by direct contact with the plant and then spread by touching other parts of the body. Because the sticky, oily substance is easily transmitted, there are indirect ways to contact it, for instance, from the fur of the family pet, garden tools, garden gloves,

clothing, golf balls or other objects that have come in contact with an injured plant. Contrary to popular belief, the rash from poison ivy cannot be transmitted from touching the oozing blisters.

If you know you have contacted poison ivy, wash the area as soon as possible with soap and cool water. Warm water may cause the resin to penetrate the skin faster. Because urushiol can penetrate in a matter of minutes, you may still get a rash, but at least you have contained the infected area. A visible reaction, redness and swelling may be apparent within 12 to 24 hours. Contact your family physician or pharmacist for recommendations for effective non-prescription medication.

One additional caution is that people can contract a rash by exposure to smoke of burning poison ivy; be careful not to burn wood with the poison ivy vine attached to it. Take extreme caution to avoid inhaling smoke or contact of smoke with skin and clothing.

Source: Ohio State University Extension