

PRUNING THE HOME ORCHARD

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Pruning is not difficult. All you have to do is step up to a plant and cut off a branch. The first 50 cuts will be made with reluctance and doubt. After that, confidence will come quickly and you soon will feel a definite pride in your work.

Don't try to change a plant's natural growth habits. If it is upright or if it is spreading, recognize these traits as natural. Corrective pruning is more

effective if you don't oppose nature.

Since the fine points of pruning are of little value, only a few simple directions are given. This information, plus your judgment, will enable you to do a satisfactory job.

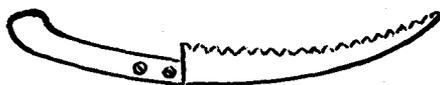
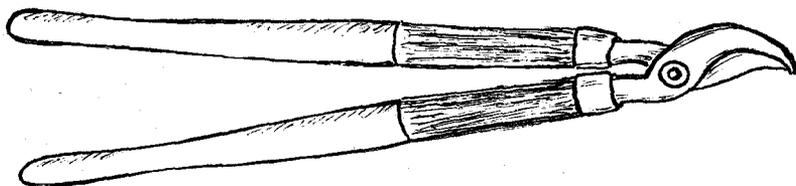
Just remember, since you can't prune without doing some cutting, step up and cut. Don't worry too much about it. A wrong cut soon will be concealed by new growth.

Tools

Before you can prune you must have tools. Since there is no substitute for pruning shears, you may need to buy a pair. Get a light, cheap pair with 20-inch handles. The long handles enable you to reach higher in the tree and to

cut larger branches than if you use hand shears. With hand shears only small cuts can be made and their usefulness is quite limited.

A carpenter's saw can be used to make occasional cuts, but if many large



Essential pruning tools

cuts are to be made, buy a pruning saw. A pruning saw cuts on the pull rather than the push stroke and is easier than a regular saw for overhead work.

A poor ladder is the shortest route to the hospital. If you need a ladder, buy a good one. With care it will last

many years. Get a regular orchard ladder, as the ordinary ladder with four legs is too difficult to set squarely on uneven ground. Treat the ladder with a combination water repellent and wood preservative to avoid splinters and weathering. These compounds are available at lumber companies.

Basic Facts

Pruning stimulates

The most noticeable response from pruning is a marked increase in the amount of new growth produced. New growth may come all over the plant, but several vigorous shoots usually will be produced just below the cut, where stimulation is greatest.

Increased vigor results in better quality and size of fruits. Since in most cases, however, pruning delays the bearing of tree fruits, it should be held to a minimum in all young trees—except peach.

Pruning is dwarfing

In spite of the fact that pruning stimulates new growth, it is actually a dwarfing process. Pruning not only reduces the size of the top but causes a corresponding reduction of root sys-

tem. The grape vine is an outstanding example of dwarfing by pruning. A pruned vine remains only a stump, while one not pruned will climb over buildings, up trees, and eventually cover a large area.

You can put this dwarfing effect to good use in the development of espaliers. Also an out-of-balance tree can be made uniform by pruning the heavy side and letting the weak side grow.

Dormant pruning

All fruit trees should be pruned during the dormant season. In mild climates prune any time after the start of leaf drop in the fall and before full bloom in the spring. Where winters are severe prune in February and March, as severe winter cold may kill some growth and cause some dieback around pruning wounds.

Prune When Tree Is Planted

Fruit trees can be set out any time they are available during the dormant season. Fall planting is preferable on light, well drained soils. Set the trees out before any growth occurs on older trees of the same kind. If planted too late in the spring, the top grows before the roots send out new rootlets. As a result, the plant dries out and dies or it grows poorly.

Cut fruit trees, except cherry and

walnut, back to 18 to 24 inches when you plant them. Cut cherry trees back to 30 inches and walnuts to 5 to 6 feet. Cut all side shoots to stubs 2 inches long. If the side shoots are vigorous and larger than a pencil, select 3 or 4 well spaced ones and cut back to stubs 8 inches long. Such severe pruning is necessary to equalize the tops and roots. Since most of the root system is cut off when the tree is dug, it is

unable to support more than a skeleton top. Light pruning will result in practically no growth the first year.

If trees are planted in lawns or other places where low branches are a nuisance, head them as high as necessary, usually 30 to 36 inches.

Pruning 1-year-old trees

After trees have grown 1 year, select the permanent framework branches. Three branches are best. They should be of equal size, well distributed around the trunk, and have wide angle crotches. They should be cut back

about one-third to stiffen them and prevent their bending out of shape. This cutting back also will cause them to branch. Remove all other branches.

Pruning 2-year-old trees

Cut off all new shoots growing from the trunk and competing with the 3 permanent limbs. Cut back lightly the branches from the permanent limbs. If they seem crowded, thin them out but leave at least 2 on each limb. Under-prune rather than over-prune.

Prune lightly from now until the trees come into production.

Apple

The apple tree can get along with very little or no pruning for years. It will continue to produce well but the size and quality of fruit may decrease. If size and quality are satisfactory, there is little to be gained by pruning.

If you desire better quality, do some light pruning. If the trees are old they probably are too tall. If so, remove the higher limbs. Cut all upright shoots growing from large, nearly horizontal limbs. If the main limbs are growing upright, cut them back to laterals. If a considerable amount of wood is removed in this manner, leave the remainder of the tree unpruned for another year.

If the trees are satisfactory in size, cut out some branches the size of your wrist. Those should be removed wherever the tree is too thick. Do not cut too many. It is easy to cut too much out of a brushy, neglected tree. Take 2 or 3 years to get the tree in shape instead of trying to do the job all in one year.

Young apples, like young pears, do not bear well and fruiting is delayed by pruning. Therefore, cut only to remove undesirable or conflicting branches until heavy bearing begins. Do not remove short shoots and spurs in young trees. These shoots and spurs produce the first apples.

Dwarf Apples

Dwarf apples are established much as standard trees. They come into production early and tend to cease making sufficient growth. This tendency can be corrected by proper fertilizer and culture, as well as by judicious pruning.

Dwarf trees can be made into ornamental hedges, trained as espaliers, or trained to special sizes and shapes. These uses, however, require special and intensive types of training not described in this publication.

Apricots

Apricot trees produce fruit both on short spurs and from buds on new shoots. As long as an apricot tree is vigorous it will have plenty of fruit buds. The important thing, then, is to keep the tree fairly vigorous.

It is best to prune during the dormant season but if you prefer to wait until early bloom so the blossoms can be used as decoration, no harm will result. The apricot makes long shoot growths with fruit buds their full length. The buds near the tip bloom several days later than the others.

Should a frost kill the early buds, the later ones at the tip still have a chance to produce fruit.

Frequently, apricot trees will have many diseased branches, evident by a gumlike substance on them. Remove these branches. In addition, where the tree is brushy, cut out some medium sized branches. If vigorous new shoots are growing from the main limbs, thin these out to at least a foot apart. The following year most of these should be taken out and new shoots left to replace them.

Plums

Plums produce fruit mainly on spurs, but some fruit is produced from lateral buds on new shoots. This characteristic varies with varieties. Most plums bear regularly, and therefore only

enough pruning is required to keep the tree fairly vigorous. Since young spurs and shoots produce the best fruit, leave this growth and remove older wood and spurs.

Sweet Cherry

As cherry trees grow older and full of brush it is still not advisable to prune. Of course, if a limb hangs in the way or if it is diseased, prune it out. Bacterial canker frequently causes gumming and cankering on limbs. Cut the limb off if these cankers encircle most of it. Also remove dead wood.

Cherry trees frequently get so tall it becomes difficult or impossible to pick the fruit on the top limbs. You can remove the top with no harm to the tree, provided it is not so opened up

that the limbs sunburn. This may be done when the cherries are ripe, thus saving one crop.

In heading back a mature tree, don't just cut the limb off at a convenient height. Cut back to a good lateral branch even though it is 2 or 3 feet lower than desired. In home trees it should be remembered that the top cherries are for the birds and if you lower the top, birds may pick the cherries you want. It is doubtful if topping benefits the rest of the tree.

Sour Cherry

Young sour cherry (Montmorency) trees require only enough pruning to develop a desirable framework. Remove excess branches while still small.

Leave spurs and short shoots for early fruit.

Mature trees also require very little pruning. As the trees become dense,

cherries inside and low generally are light colored and small, and their grade is reduced. All efforts to correct this by pruning have resulted in reducing the total crop of good fruit.

If too many of these low quality

cherries are produced, instead of opening up the tree so sun can get in, cut out the fruiting shoots in the center that produce poor fruits. Low hanging limbs may be removed if in the way of cultivation.

Pears

Pears produce blossoms on spurs and occasionally on lateral buds on 1-year-old wood, particularly on Bartlett's. Pear trees do not produce much when young. Since pruning delays fruiting, prune young trees very little or none. Leave short shoots and spurs untouched. Remove only the undesirable and interfering limbs and thin out new terminal shoots.

As the tree grows older and produces heavily, a little more pruning is desirable. Remove limbs only from areas where the tree is too dense. First, remove limbs that are heavy with old spurs but have very little new growth. Next, cut off interfering limbs. If the tree is still too dense, take out a few

more branches so the remainder are left well spaced.

In addition to this branch removal, remove practically all water sprouts in the center and top of the tree. Leave a few water sprouts distributed throughout the tree to serve later as fruiting wood to replace older branches.

With the Anjou variety, heavier pruning frequently is necessary to stimulate the tree enough to cause it to set a crop. Remove water sprouts all over the tree, remove heavily spurred branches, especially in the lower half of the tree, and thin out those branches that are forked and have several laterals, especially in the upper half of the tree.

Peaches

Peaches produce the bulk of the fruit on last year's wood. Therefore, enough new wood should be left to produce a crop, but the tree must be pruned enough to stimulate the production of new wood for next year's crop.

On young trees up to 6 years, remove all lateral growths which are older than 1 year. Leave most young shoots in the lower portion. If the tree is too thick, cut out a branch or 2 in the center or where crowded. Then remove completely most of the new growth in the top. Lightly head the remainder back to laterals. Do not tip unbranched whips.

The best way to keep a tree from

growing tall is to leave the shoots in the top long, and the crop will bend these shoots over. If stubbed back the shoots are stiffened and will produce more shoots which grow straight up.

Some older lateral growth must be left low on older trees because new shoots become increasingly scarce. Remove some moderate sized wood, especially in the upper half of the tree. Remove branches entirely or cut to a good lateral. Cut back to about the same point each year to prevent the tree from getting taller. Do not cut back new shoots left unless they are branched. If they are branched, cut back to a lateral.

Filberts

Filberts can be grown either as bushes or trees. Trees usually are preferred and the choice must be made the first spring. As soon as growth starts in spring, select the sprouts you desire as permanent branches. All other sprouts should be rubbed off. Continue rubbing off all new shoots as they

appear. The tendency to produce these sprouts is weakened and the tree form is established.

Little further pruning is needed. Cut off any low hanging branches for the sake of convenience. Thin old trees slightly to remove dead or weak twigs and to keep moderately vigorous.

Walnuts

The lower limbs of walnut trees have a drooping habit; therefore, a trunk 5 to 6 feet high is desirable. After the framework branches are developed, no further pruning is needed. As the trees get older cut off some of the drooping branches. To reduce bleeding, prune in late spring when the

leaves in the terminal buds first appear.

When trees get old and quit growing, some pruning may be necessary to maintain size of nuts. However, probably the size of nuts would be maintained better by improved irrigation and fertilization practices rather than by pruning.

Almonds

After almond trees are established, little or no pruning is needed. Eventually the trees become filled with branches covered with weak twiggy growths. Remove a few of these to keep the tree growing slightly and

from becoming too brushy.

Almonds are self-sterile and require cross pollination to produce satisfactorily. Low production is a result of unnatural climate and poor pollination and is not corrected by pruning.

Wound Paint

Small cuts heal quickly and need no special attention. A paint made of neutral copper and water applied once a year to cuts larger than $1\frac{1}{2}$ inches will protect against the entry of rots. Since

paint may burn fresh cuts, do not apply for at least 3 weeks after the cuts are made. A more permanent paint can be made by combining neutral copper and linseed oil into a thick mixture.

This bulletin was prepared by Cliff Cordy, Jackson County Extension Agent, Oregon State College. Extension and resident staff at the College reviewed the manuscript and made valuable suggestions.