

TRAINING APPLE TREES IN THE HOME GARDEN

Horticulture Branch, B.C. Ministry of Agriculture

Tree-training can be described as a practice, involving various techniques, that is employed to control tree shape, size and productivity. Its objectives should be to develop a tree that is easily accessible, well exposed to sunlight, and capable of producing heavy, high-quality crops at an early age. Both pruning and spreading play important roles in training of young apple trees. Control of fruiting by removal of blossom or fruit during the first year or two after planting could also be considered as a phase of tree-training.

PRUNING - Basically the purpose of pruning a young tree is to control the shape of the tree by development of a strong, well-balanced frame-work of scaffold branches. Unwanted branches should be removed or cut back early to avoid the necessity of larger cuts in later years. Excessive pruning will delay development and fruiting of a tree.

During the first 2 or 3 years it is desirable to prune during the growing season (often referred to as summer pruning) as well as the dormant season. In later years pruning is usually restricted to the dormant period. The preferred time to dormant prune is during the latter part of the winter, when the possibility of a severe freeze is reduced. The first summer pruning is usually carried out during early June. For some trees, particularly very vigorous trees, a second summer pruning about one month after the first may be beneficial to the development of the trees.

SPREADING - Spreading may be accomplished by use of wooden or wire spreaders or by tying branches down with twine. In a trellised planting, spreading is accomplished by tying the branches to the wires of the trellis.

Spreading is employed to assist in shaping the trees and to encourage early fruiting. While spreading can be done at any time of the year, it is most desirable to spread the trees prior to dormant pruning. Spreading should not be attempted if the wood is frozen.

Central leader (remove 1/3 of new growth when dormant).

The sketch on the right illustrates how pruning and spreading may be employed in the development of an apple tree.

Remove branches with narrow crotches, that are competing with the central leader. This pruning can be done during the dormant period but summer is preferred.

A spreader can be installed to improve the position of a branch. Spread to an angle of approximately 60°. Original position of branch is indicated by broken line.

Develop well-spaced, strong scaffold branches (A, B, C, D) with the lowest branch (A) 18 - 20 in. above ground level.

Remove all growth from the trunk below the lowest scaffold branch during summer and dormant pruning.

CONTROL OF FRUITING

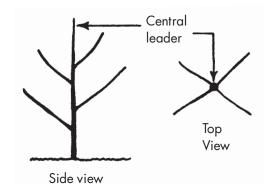
Control of fruiting on young trees is an important aspect of tree-training. Premature cropping (cropping before the trees are properly developed) can have a very adverse effect on growth. No fruit should be allowed to develop on young apple trees until they have developed to the stage where they have sufficient size and vigour to produce a crop of apples and, at the same time, make adequate terminal growth.

TREE TRAINING METHODS

There are many training methods that can be used to develop apple trees in the home garden; some being more artistic than practical. Two types of tree, central leader and modified central leader, will be considered here. It is suggested that central leader trees be developed in plantings where trees are spaced 18 feet or closer. For wider spacings a modified central leader tree is preferred.

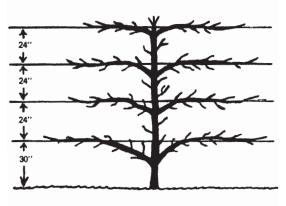
Prepared by: W.S. Peters
Horticulturist
B.C. Ministry of Agriculture
Abbotsford.

Central Leader



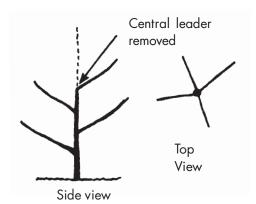
In a central leader tree the central leader is retained as the dominant growth on the tree upon which the framework of lateral branches is developed. Lateral branches may be kept in balance by spreading or heading back of the more vigorous branches. The central leader should not be allowed to be bent out of position by a prevailing wind or by the weight of fruit

Trellised Hedgerow



Employment of a 3 to 5 wire trellis could be considered particularly where trees on M9 roots are to be planted. In this training system a central leader is developed with the scaffold limbs tied to the wires. This is illustrated by the sketch of a 4 wire trellis on the left.

Modified Central Leader Tree



In a modified central leader tree the central leader is retained until a framework of 3 to 6 lateral branches has been developed. The central leader is then headed back to the uppermost lateral branch as illustrated in the sketch on the left. Vigour of all lateral branches should be kept in balance so that no branch becomes dominant.



