



Grow the Crop

Handout 19

Training Applied to Apple Tree

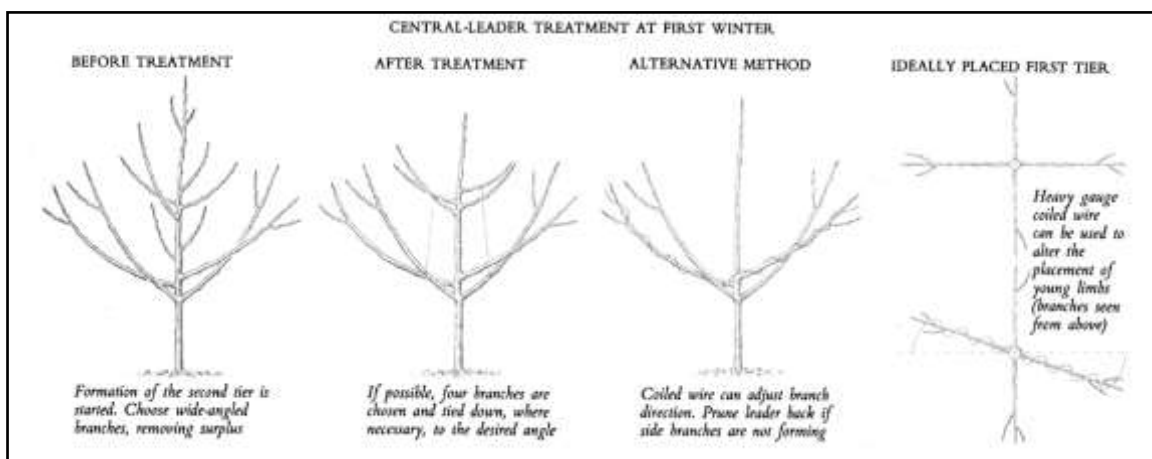
Training tree crops as applied to an Apple Tree

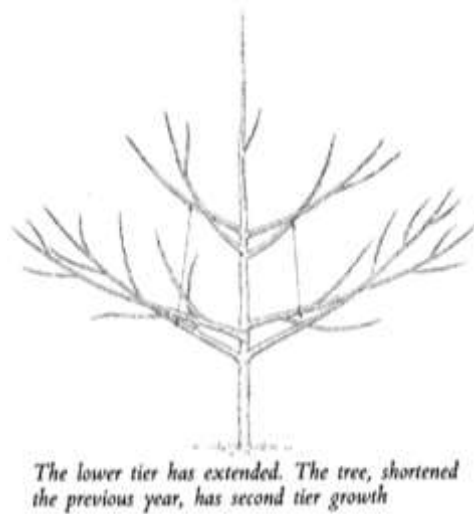
An example of the application of these techniques is training of apple trees. As an example, a commonly used training system used in apple orchards is discussed. The system is called the **central leader system**.



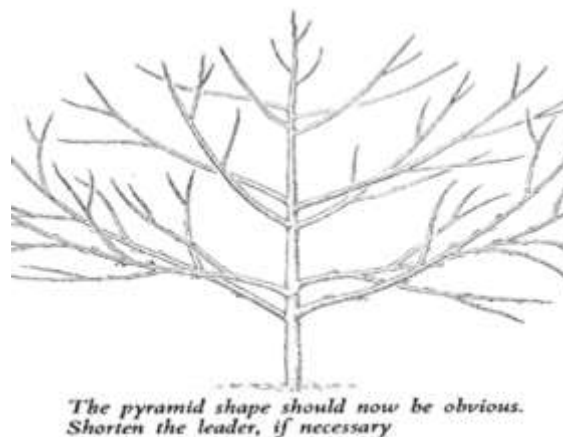
The first phase of frame development occurs at planting when the stem is pruned down to a height of 80 cm above ground and the side shoots are removed leaving only four selected branches that form an evenly spaced tier. This is normally done in winter. These remaining branches are then staked at an angle of 30-40 degrees from the horizontal.

Summer pruning will have to be done to remove misplaced branches.





In the second year, the first tier would have grown new shoots and the tree have developed a second tier that will be staked to the first tier. This second tier should be about 50 cm above the first tier. At this point it is advisable to shorten the leader if it is too vigorous. If the branches that make up the tier are not evenly spaced; lightly coiled wire can be used to correct this. This technique can also be used to adjust the angle of the growth of the side branches. Twine half the wire around the branch on one side of the central leader and extend it to twine around a branch on the other side. Leave the wire in place for only about six weeks so that it does not damage the wood and buds.



During the third winter, the tree would have developed a pyramid shape and a third tier. The second tier will have produced laterals. Pruning should be kept to the absolute minimum. The leader should be shortened to stimulate growth into the framework.



Structural training is complete, or close to completion. Ideally there are four tiers

In the fourth winter, the tree has developed four tiers and the leader is shortened again. By this time the tree produces fruit and it might be necessary to thin fruit from the branch terminals until they are stronger and able to withstand the weight of the fruit.

After the fourth-year light pruning is done. This promotes early and heavy first crop. Laterals should only be cut back in the young tree if they are out of place or diseased.