

Pruning young trees

Young mango trees are pruned to ensure that the tree develops a strong framework with plenty of exterior terminal branches and minimal interior branches. As the mango tree is a terminal bearer (it flowers from the ends of the branches), the more branches the tree has, the better the potential yield. Pruning young trees frequently also brings the trees into production earlier than if they were left unpruned.

A well-structured tree:

- is easier to harvest
- has better spray penetration which improves fruit quality
- has more branches and therefore higher yields

Natural growth habit of young mango trees

Young mango trees have two distinct growth phases:

1. Seedling development (a)
 - Most energy is directed to lengthening the main stem
 - May grow to over one meter tall before pushing out branches
2. Lateral branching (b)
 - Development of the canopy



(a)



(b)

 A BEST PRACTICE RESOURCE

Equipment required

To prune young mango trees, you will need a good pair of secateurs.

When to prune

Start pruning young trees as soon as they are established, normally six to eight weeks after planting. Trees planted in late autumn or winter should not be pruned until spring growth starts. Young mango trees should be pruned every one to three flushes to maximise branching and fruiting terminals.

When trees reach bearing age, prune them each year to maintain size, thin out the canopy and remove dead wood. The main pruning is done after harvest.

The first prune

Allow the tree to grow to over one metre in height before performing the first prune, to bring the tree back to a height of 80-90cm. Ideally the first prune will be below a whorl of leaves, where there is a minimum of three or more leaves that are spaced out along the trunk. At the base of each leaf are axillary buds. Pruning here will stimulate the buds to form shoots, resulting in a tree with branches that are well spaced around and up the trunk.





If there are no suitable options immediately below a whorl, trees may be pruned immediately above a whorl. However, this will result in multiple (up to seven or more) branches initiating from the same point that could become a weak branch junction prone to breaking in strong winds. The benefit of pruning immediately above a whorl of leaves is that it will provide multiple options for selecting branches.



The second prune

Allow the shoots that have developed from the axillary buds to produce at least two mature flushes. The branches should be pencil-thick or thicker (preferably) and the leaves should be dark green. Select three or four well-spaced shoots to become the main branches. Prune at roughly 60-80cm from the main trunk or roughly 1½ growth units, ensuring the cut is below a whorl of leaves as per the first prune. Remove all other shoots.

Subsequent pruning

New shoots will grow from the pruned side shoots. Select two or three of these shoots and repeat the pruning process as per the second prune. Remove all other shoots. Continue pruning in this way until the desired framework is obtained or until flowering.

Control fruiting for the first two or three years

Do not allow the tree to produce fruit for the first two to three years, depending on tree development, tree spacing and variety. For example, for heavy bearing varieties such as Keitt it is worth considering delaying first bearing until year three. Trees planted at higher density (e.g. 2 – 3 metres between trees in the row) will reach their desired canopy dimensions quicker than lower density plantings, meaning trees grown at higher densities can be allowed to bear earlier. If undesirable flowering does occur, allow the tree to set small fruit (roughly marble sized) before cutting the flowers off at the base. If flower panicles are removed too early, the tree may re-flower. Removing flowers will promote further vegetative growth.



Key references

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