



INTRODUCTION TO WINTER PRUNING OF APPLE TREES

Wintertime, when the leaves have dropped and the tree is dormant, is the best time to prune apple trees. The type of pruning required depends upon the state and age of the trees.

Old, neglected trees

If trees are old and have been neglected, some hard core work might be needed at first to improve the tree, which should then only need a little bit of work each year. If the tree is in a very poor state, it may be that the work cannot be done all at once. Hard pruning should stimulate new growth, but the tree might need a year or two to become productive again.

- Firstly, remove all the dead, diseased and broken branches.
- Branches that receive little light should be removed completely as they will never grow well.
- Branches that obstruct passage should be removed, or pruned back to an upright shoot. It is often said that a small bird should be able to fly between the branches of a tree so you are aiming to remove branches that would obstruct this movement.
- Remove any branches growing into the centre of the tree
- Remove any crossing branches as these can rub against other branches causing damage and encouraging disease.
- Reduce overlong and unfruitful growth to an upward, outward-growing side branch. To avoid dieback the side branch you choose should be at least one third thicker than the diameter of the branch you are removing.
- Unless absolutely necessary, avoid removing any branches over 20cm (8in) in diameter.
- If more than 25 percent of the canopy needs to be removed, spread the pruning over two to three years. Over-pruning can result in the production of watershoots (see later), vigorous, tall, upright and leafy branches, producing no flowers or fruit.

Stunted, starved trees

Starved trees tend to have little new growth and overcrowded, stubby branches producing flowers and fruit. You might see moss and lichen on these branches. This is not a great concern in itself as it is a sign of poor growth not the cause of it.

- Remove all the dead, diseased and broken branches.
- Branches that receive little light should be removed completely as they will never grow well.
- Low growing branches are also best removed.
- Remove branches growing into the centre of the tree to avoid congested growth.

On spur bearing apple trees, fruit grows on small thorn-like shoots (called spurs), which grow evenly along the main branches. Most spur bearing apples bear fruit the second or third year.

- Thin out some of the spur systems, removing those that are unproductive or that are overshadowing others, aiming for spacing spurs 10-15cm (9-6ins) apart. This will give the remaining spurs more space, and allow light to reach them, resulting in better fruit size and more even ripening and allowing better air movement. This will also encourage tree vigour, and new branches should grow. These will eventually replace the older, worn-out branches.

To improve tree health, remove grass and vegetation from around the base of the tree creating a circle of at least 60-90cm (2-3ft) radius. Mulch the cleared ground with 5-8cm (2-3ins) of bulky organic matter such as garden compost or well-rotted manure.

Young trees

With young trees, pruning is aimed at creating stronger branches for later fruit bearing. It uses a technique known as heading back. Heading back means pruning the outside branches of the tree to shorten and thicken them. It stops branches from getting long and spindly and at risk of snapping.

- Cut away 20-30% of last year's growth on each branch. Make the cut just above an outward-facing bud. It will cause a new shoot to grow from the direction the bud is facing in the coming year. It will stimulate growth and encourage branches to grow in the direction you want.

Heading cuts should be avoided once the initial shaping of the tree has been completed as it can cause the tree to become overcrowded. In mature trees, if you need to use a heading cut to shorten a long and thin branch, make the cut in old wood as this causes less new growth.

Routine Winter pruning

Once you have restored old, neglected or starved trees you can undertake more gentle, winter pruning.

- Remove all the dead, diseased and broken branches.
- Remove any sprouts coming from the base of the trunk. These are known as suckers and they originate from the rootstock rather than the fruiting tree grafted onto it.
- Remove any straight stems sprouting from main branches, water shoots.
- Remove any upward growing interior branches, especially those that rub against each other or cross over
- Remove leading branches that compete with each other
- Remove one branch where two or more branches grow from the same point, retaining the strongest and/or best placed
- At regular intervals, stand back and check the overall shape of the tree to get a finished, pruned tree with evenly spaced branches and an open goblet shape.

Watershoots

Watershoots are the vigorous, tall, upright and leafy branches which produce no flowers or fruit.

- In the first year after pruning, remove any watershoots growing directly from the trunk or from the lower parts of main branches and cut out half of the remaining upright watershoots from their base to leave evenly spaced shoots.
- Tip-prune the remaining watershoots, by cutting off the top 10cm (4in), to encourage branching.
- In the second year, remove, at the base, half the watershoots retained in the previous year. Prune the remaining shoots to an outward-facing bud or branch.
- In the third year, continue to prune to outward-facing buds or branches. By this time fruit buds should have started to form on the new shoots.