

Main pruning definitions



Crown Thin

Crown thinning is the removal of a portion of smaller branches, usually at the outer crown, to produce a uniform density of foliage around an evenly spaced branch structure. It is usually confined to broad-leaved species.

Crown thinning does not alter the overall size or shape of the tree. Material should be removed systematically throughout the tree, should not exceed the stated percentage and not more than 30% overall.

Common reasons for crown thinning are to allow more light to pass through the tree, reduce wind resistance, reduce weight (but this does not necessarily reduce leverage on the structure) and is rarely a once-only operation particularly on species that are known to produce large amounts of epicormic growth. Epicormic growth is **a plant response to damage or stress**. It is the growth of new shoots from epicormic buds that lie dormant beneath the bark. Plants which respond in this way are often referred to as re-sprouters. Lime trees are particularly noted for this type of growth.



Crown Lift or Crown Raising

Crown lifting is the removal of the lowest branches and/or preparing of lower branches for future removal. Good practice dictates crown lifting should not normally include the removal of large branches growing directly from the trunk as this can cause large wounds which can become extensively decayed leading to further long-term problems or more short-term biomechanical instability.

Crown lifting on older, mature trees should be avoided or restricted to secondary branches or shortening of primary branches rather than the whole removal wherever possible.

Crown lifting is an effective method of increasing light transmission to areas closer to the tree or to enable access under the crown but should be restricted to less than 15% of the live crown height and leave the crown at least two thirds of the total height of the tree. Crown lifting should be specified with reference to a fixed point, e.g., 'crown lift to give 5.5m clearance above ground level'.



Crown Reduction

The reduction in height and/or spread of the crown (the foliage bearing portions) of a tree. Crown reduction may be used to reduce mechanical stress on individual branches or the whole tree, make the tree more suited to its immediate environment or to reduce the effects of shading and light loss, etc.

The final result should retain the main framework of the crown, and so a significant proportion of the leaf bearing structure, and leave a similar, although smaller outline, and not necessarily achieve symmetry for its own sake.

Crown reduction cuts should be as small as possible and in general not exceed 100mm diameter, unless there is an overriding need to do so. Reductions should be specified by actual measurements, where possible, and reflect the finished result, but may also refer to lengths of parts to be removed to aid clarity, e.g., 'crown reduce in height by 2.0m and lateral spread by 1.0m, all round, to finished crown dimensions of 18m in height by 11m in spread (all measurements approximate.)'.

Not all species are suitable for this treatment and crown reduction should not be confused with 'topping', an indiscriminate and harmful treatment. Topping refers to **the removal of large portions of the crown of the tree** - the making of horizontal cuts, generally through the main stems. Often used to describe crude, heavy-handed, or inappropriate pruning.