

## Formative pruning of trees

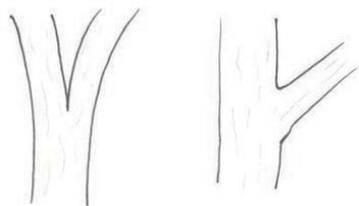
**Eileen Woodbyrne**  
Lecturer, Teagasc College at the National Botanic Gardens

**F**ormative pruning starts in the nursery and continues through the tree's early years in its ultimate location. Formative pruning helps the tree to establish a good, attractive, branch structure as it grows. Branch structure can contribute to tree health too. If crossing branches are allowed to develop, they can rub against each other causing bark wounds that allow disease-causing organisms to get into the wood.

Perhaps most importantly, formative pruning can correct problems in a young tree that have the potential, if not corrected, to lead to tree failure later on. Co-dominant stems are a good example. Sometimes called twin leaders (although there can be more than two), co-dominant stems exist where stems of similar diameter arise from the same point on a tree.

This gives rise to a tight, V-shaped fork which is structurally weaker than where a single subordinate branch arises from a main stem. When this weak union fails, it can leave a large tear-out wound that exposes wood to decay-causing organisms. The shape and appearance of the tree is usually badly affected.

**Figure 1**



A potentially weak V-shaped union between two co-dominant stems.

A stronger branch union between a main stem and a subordinate branch.

When a tree is young, co-dominant stems can be corrected by choosing one leader and removing the other(s). If done early enough with a secateurs or a lopper, there will only be a small wound which the tree can seal quickly.



Removing one of these co-dominant stems is easy at this young stage.

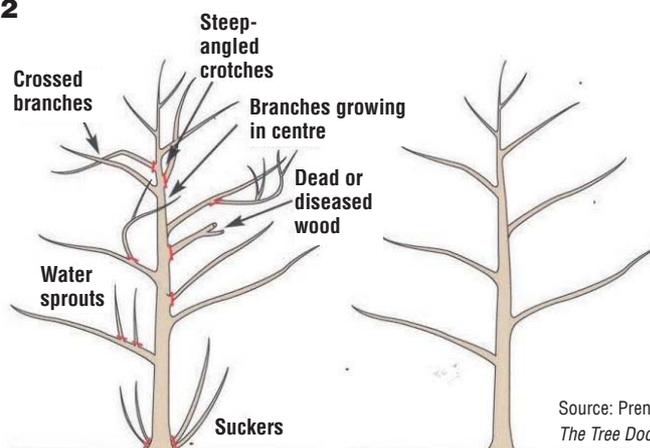


This union is well on the way to failing.



The outcome when co-dominant stems fail in a mature tree.

**Figure 2**



Source: Prendergast D & E, *The Tree Doctor*, Firefly 2003

### How to prune a young tree

- If the tree has co-dominant stems, choose one to remain as the leader and remove the others.
- Remove dead or diseased wood.
- If two branches are crossing or rubbing, remove one.
- Remove suckers (shoots arising from the root system or from below the graft union in a grafted tree).
- Remove badly placed or crowded branches, and branches that are growing back in towards the centre of the tree.
- If you want a standard tree, you will have to remove some lower branches, but phase this process over a few years. The presence of low branches helps a young tree to develop a strong stem so don't remove them all at once.

### When to prune?

If you buy a young tree from a nursery or garden centre, it should not need pruning – this should have been done in the nursery. Remember that if the tree has been field grown and lifted for sale as a bareroot or rootballed plant, it will inevitably have left some of its root system behind in the nursery. Its priority at this stage is to put on root growth in its new home and it won't want to put

energy into responding to wounds. So, aside from removing or cutting back branches that have been damaged in transit, we should not be routinely pruning trees at planting time.

There is no ideal time to prune trees. When we prune we are inflicting wounds and the tree would prefer if we didn't do that. Many people prune in winter because with deciduous trees it's easier to see the branch structure. However, the tree is dormant then, and it is unable to mobilise its chemical defence system or to begin to seal the wounds.

In midsummer, the tree is actively growing and has built up enough stored energy to be able to respond to possible damage. With cherry trees in particular, it is better to prune in summer as they are less likely to become infected with silver leaf disease at that time of year.

The only caveat here is that we shouldn't prune any tree when it is stressed, so if there has been a drought spell, postpone the pruning operation.

In conclusion, judicious pruning while your tree is young will reward you and your descendants with a more attractive, healthier and potentially longer-lived tree.