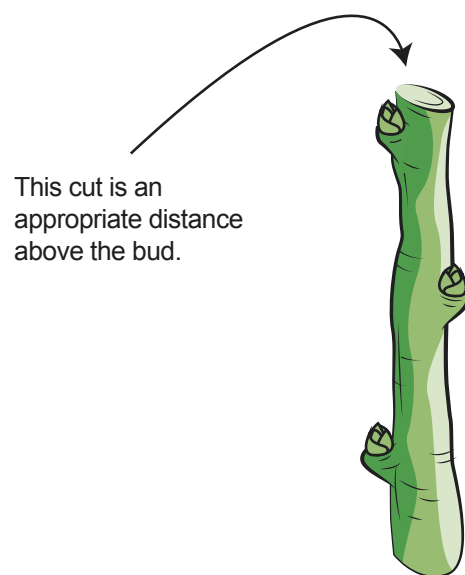
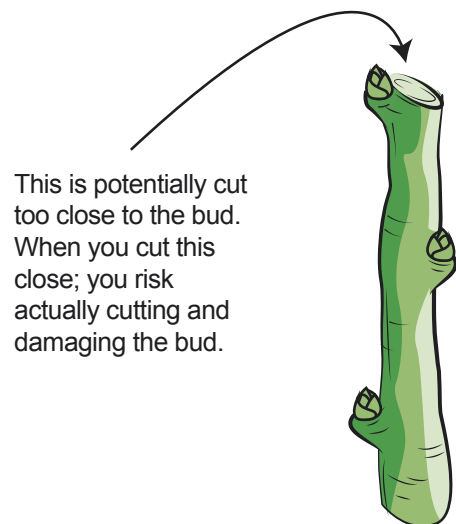
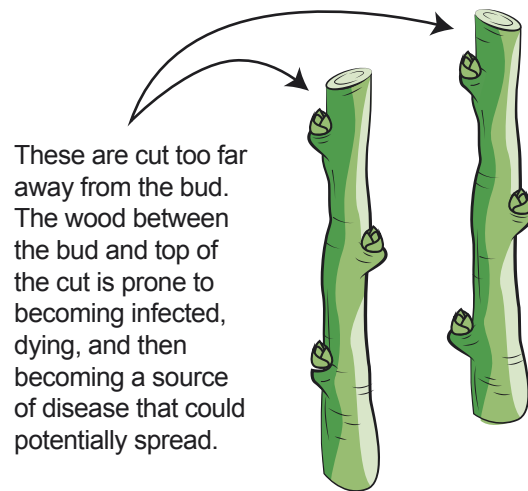


HOW CLOSE TO CUT TO A BUD



How to Cut

Controlling the Plant's Shape and Size

Any amount of pruning causes some degree of stress to a plant. Ideally, plants of suitable growth and habit should be selected for the site in which they are to be grown, but this is not always possible. Also, some people prefer their plants to have a more manicured appearance, perhaps to fit in with a formal garden style.



Fruit trees pruned annually to have growth in the centre removed (allowing better ventilation and light in the middle). Also, tall shoots are removed to contain the height and maintain accessibility.

It is important to remember that different plants have different levels of tolerance to hard pruning. With some plants, you can remove 50% of the foliage and this will result in improved vigour and health. With other types of plants, removing 50% of the foliage will cause death. Occasionally you may encounter a plant which has low tolerance to hard pruning that will survive a hard prune, but this is not typical. It is better to find out the recognised safe pruning limits for a particular plant before pruning it if you are unsure.

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Suggested Tasks

Take a brief stroll around your neighbourhood or your garden. Look for tree and shrub branches which have been pruned. Examine how close to the buds the cuts are, the slope of the cut, and direction of the cut. Determine whether the cuts are well-made, or whether they might lead to plant disease or damage.

Sometimes it is worth taking a risk with an old plant. If you have a shrub that is old and unsightly but you like that species in that place, cut it back hard, perhaps even to the base, and give it a year to recover. If it regrows you have the plant you want, but if it dies you have a planting opportunity.



This is called “cordon” pruning - used for decoration or ease of management.

up to 20%. This means that if more than 20% of the top growth is removed, the *Acacia* is likely to suffer, or even die.

- If large branches are growing in a position where you do not want them, it is valid to remove them.
- If foliage is spreading over a pathway, it is acceptable to cut it back.
- Similarly, if a branch that bears flowers and fruit is growing where it is not wanted then removal of the branch may be warranted.
- If a plant is getting too large, then it can be pruned to contain it.
- If a plant in a garden is growing out of shape, e.g. a hedge or topiary, then pruning to restore the initial shape is recommended.

One way of expressing a plant’s tolerance to cutting back is as a percentage of the plant’s total size. For instance, *Acacias* may be cut back by

It should be noted that when pruning to control size or shape, frequent light pruning is nearly always better for the plant than irregular heavy pruning.



Power tools not only make a big job faster; but can make it easier to achieve an even cut.

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Suggested Tasks

Choose 5 species of plant you are familiar with, or would like to know more about. Conduct an internet search to find out what percentage of plant growth can safely be removed for each of these plants e.g. search for “Acacia safe pruning guidelines”. Make notes. Were your findings as you had imagined?



Buddleija will regrow from a hard pruning. Without pruning, Buddlejias can develop very long, spreading and sometimes attractive branches.

Promoting Healthy, Bushy Growth

The lifespan of many plants is generally lengthened by regular pruning. When plants grow they extend outwards at the tips of shoots, and the stems become thicker. Hormones released by the topmost bud are sent down the shoot and these inhibit growth of buds lower down. This is called apical dominance. Only once the uppermost tip has grown far enough away from the plant do buds lower down start to produce branching stems.

By pruning the tips of shoots apical dominance is stopped and buds lower down stems will burst open sooner. An advantage of doing this is that the tips of shoots are softer and fleshier and the leaves are more susceptible to the ravages of harsh weather such as freezing winds or scorching sunlight. Pruning removes this tender growth. It encourages plants to put more

energy into developing woodier stems and denser foliage where it is needed to protect them from the prevailing conditions. The ability of buds further down the stem to start growing reduces as these buds get older. So if you have plant such as *Mahonia x media* 'Winter Sun' that has bare stems in its bottom half, no amount of pruning at the top will induce the buds near the base of the plant to grow.

Rejuvenating a Plant

Removing old wood while leaving newer wood will rejuvenate most plants. Roses are typically pruned this way in temperate climates. Over a period of years, the younger growths emerging from the base of the plant are left if they are strong, while the older woody stems are cut out. The lifespan of a rose is increased greatly by this method.



Many, but not all, trees can be revitalized and given a much better shape by heavy pruning back to a framework of main branches.

Many plants can tolerate a hard prune to stimulate new growth, but any plant which is rejuvenated through pruning must be of good health to begin with. Plants which are visibly diseased or which have little foliage may never recover from hard pruning. Generally speaking, the harder a plant is pruned the more growth is stimulated.

An old, vigorously-growing plant that has become too large can be refreshed and reshaped through rejuvenation pruning. However, a plant which is pruned annually to reduce its size because it keeps outgrowing its space will become a weakened plant which is more susceptible to disease. It is far better to select a plant for the available space which can be allowed to reach its natural size.

When carrying out hard pruning on a plant to rejuvenate it, it is sensible to help the plant to recover in every way that you can. For example, the plant should grow back strongly if you remove any plants which are competing with its roots for nutrients, apply a general fertiliser, and mulch with organic matter such as well-rotted manure..



Pruning is needed to remove storm-damaged wood after this branch fell.



Hyssopus officinalis (Hyssop) after a hard prune. It is regrowing strongly on some branches, but others have died off.

WHY PRUNE?

Many people ask themselves the question “Should I prune?” Sometimes the answer is “No.” If there is no good reason to prune, then leave the plant. In other cases, there may be many reasons why we would prune a shrub or tree. The following checklist summarises those reasons:

- To remove storm-damaged growth.
- To recut a torn or damaged section as a result of storm damage or injury.
- To rejuvenate an old tree.
- To rejuvenate a leggy tree with weak growth.
- To reshape a tree with a poor structure.
- To redevelop the structure of a tree to develop a framework that is stronger and more supportive to the growth than the original branch formation.

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Suggested Tasks

Conduct an internet search to find at least 10 plants which can withstand a hard prune e.g. search for “Toughest plants which withstand hard pruning”. What similarities are there between these plants? Are there any you didn’t expect could tolerate a hard prune? Make notes.

- To let more light into the centre of a tree or shrub to stimulate growth and help fruit ripen.
- To improve air circulation to prevent mildew and stem rots.
- To prune out wood or growth damaged by or containing pests.
- To give a plant a better shape.
- To dwarf or make the overall growth more compact by regular pruning.
- To give bushier growth: as the outer growth is trimmed it forces side shoots to develop more growth, shoots and flowers.
- To encourage more flowering and fruiting wood.
- To reduce dominant wood and slow the growth so that more fruiting and flowering wood will occur.
- To remove green-leaved shoots that have grown on a variegated plant.
- To develop a stronger framework such as on the growth of buddleia where multiple trunks develop from the base and few, but stronger, shoots are needed to prolong the growth of the plant.
- To remove old wood to encourage new shoots and flowers (e.g. roses).
- To reduce growth to produce fewer but larger quality blooms and fruits.
- To remove dead growth.
- To remove crossing wood that will rub on and damage other growth.
- To remove diseased limbs and parts of the plant.
- To train ornamentally attractive forms e.g. coppicing, pollarding and topiary.
- To encourage strong growth of basal shoots with colourful bark.
- To create a bushy hedge.
- To reduce the size of a large tree in a suburban garden without removing the whole tree.
- To reduce the size of the crown of an important veteran tree to keep the tree alive for as long as possible, particularly if the tree is historically important or of sentimental value. This normally involves removing the dead branches.



Schefflera actinophylla will usually regrow strongly after hard pruning.



With leaves gone over winter; it can be seen that branches on this Sorbus are crossing over and will rub against each other in the wind (potentially damaging bark and opening wounds that could become infected). Now is a good time to thin out these branches while leaves are not obscuring the wood.

Pruning Different Species

Different types of trees and shrubs are pruned in different ways according to the problem or aim, and also according to the growth type we want to encourage or discourage. Sometimes the way in which you prune a plant is the same for all of the members of a genus. For example, all *Cistus* plants resent hard pruning. On the other hand, there is no one rule for all *Clematis*. “Think twice, before you cut once” is a good mantra to help you avoid mistakes.



Ginkgo pruned to reduce size of the crown.

Pruning methods and styles also vary from country to country according to the traditions of each country. Some of these may be methods handed down over centuries.



When removing a branch, make a clean cut close to the trunk.



Pollarded street trees regrowing in spring.

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Suggested Tasks

Find out more about pruning Clematis. Consult any books you may have or conduct an internet search. Determine the similarities and differences when pruning these three types of clematis:

- *Clematis montana*
- *Clematis armandii*
- *Clematis* ‘The President’

Make notes.