

A pair of orange and black pruning shears is shown in the foreground, cutting through a branch of a green tree. The background is a clear blue sky. The shears are positioned diagonally, with the blades open and cutting through the branch. The tree has small, feathery green leaves and some small pink flowers. The overall scene is bright and clear, suggesting a sunny day.

PRUNING

BY JOHN MASON AND
STAFF OF ACS DISTANCE EDUCATION

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CREDITS

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Written By:

By John Mason and staff of ACS
Distance Education

Photos:

John Mason and Stephen Mason

Layout & Illustration:

Stephen Mason

Contributors:

Timothy Walker *B.A.(Botany), RHS.M.
Hort., Post.Grad.Dip.Ed.*

Adriana Fraser *Cert.Hort., Adv.Cert.
App.Mgt., Adv.Dip.Hort.*

Dr Janet Hussein: *PhD, MSc, BSc (Hons).*

Marie Beermann *B.Sc. Hort., M.Sc. Hort.,
Cert. III Ldscp., Dipl. Management, PDC*

Gavin Cole *B.Sc., Cert.Garden Design*

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P.O. Box 2092, Nerang MDC,
Queensland, Australia, 4211
admin@acs.edu.au
www.acsbookshop.com

P O Box 4171, Stourbridge, DY8 2WZ,
United Kingdom
admin@acsedu.co.uk
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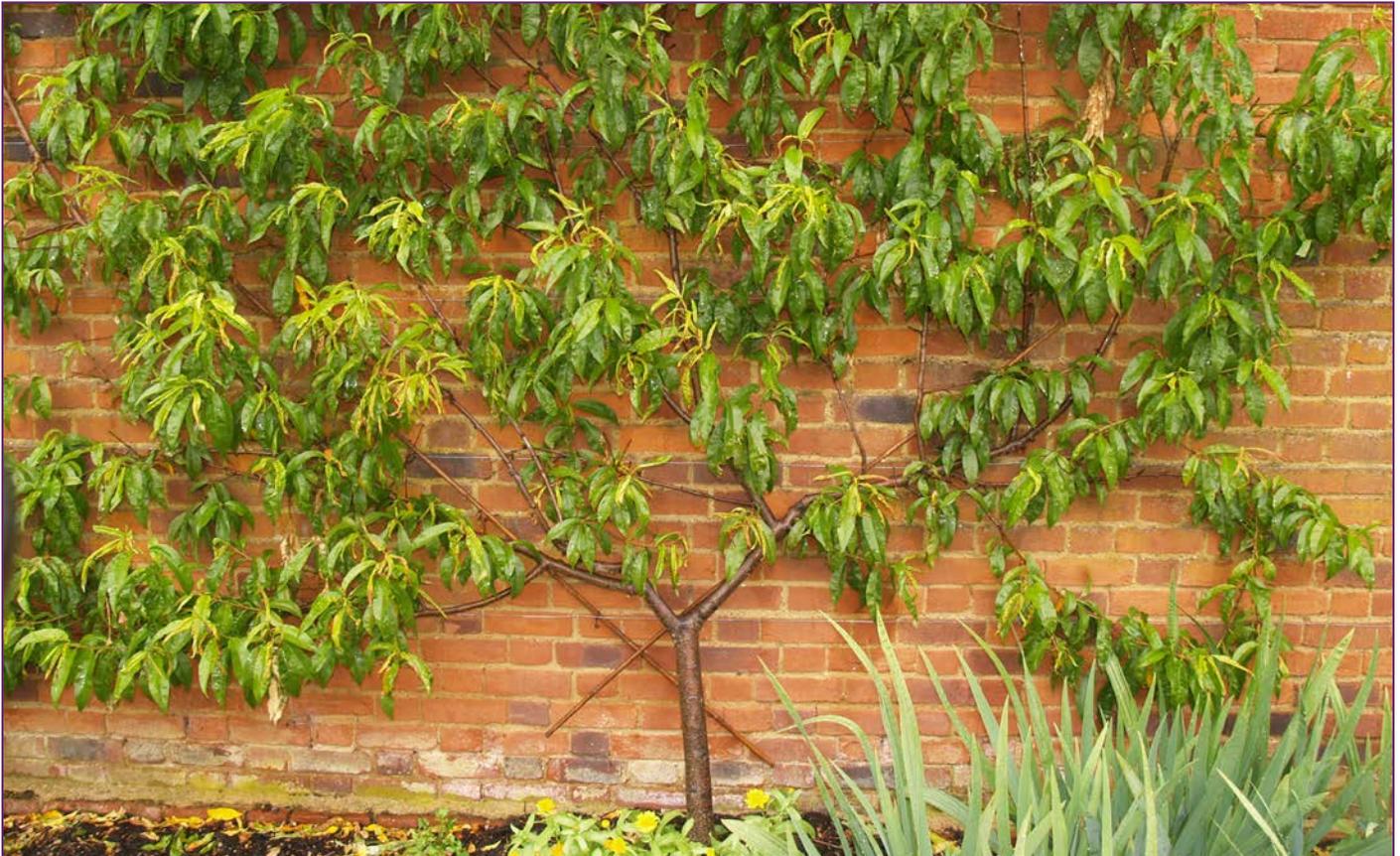
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CHAPTER 1 INTRODUCTION



Training this peach tree to grow against a wall has many benefits: aesthetic and practical.

WHY, WHEN AND WHAT TO PRUNE: HOW PRUNING AFFECTS PLANTS

Pruning involves cutting parts off a plant for one, or several, of the following reasons:

- To remove broken branches, dead or diseased wood which could affect other parts of the plant.
- To exercise control over the type of growth produced. For example, to promote flowering, fruit or foliage.
- To control the size of a plant so it doesn't become too large.

- To control the shape of the plant to improve appearance.
- To promote healthy and bushy growth.
- To rejuvenate an old plant by encouraging the replacement of old wood with new wood.

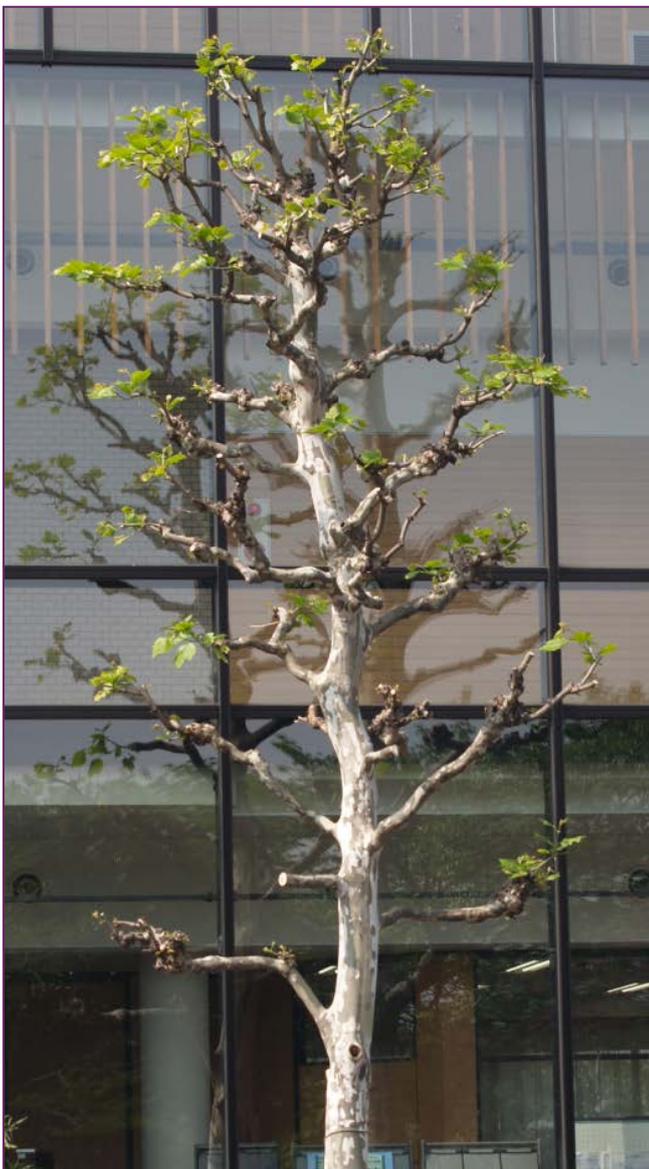
If you are not pruning for one of the reasons listed above, then you do not need to prune at all. Many people prune plants just for the sake of it. This is not necessary. Some plants (for example most trees) only need dead or diseased tissue removing (if present) but otherwise can be left. Remember no plant in the wild was ever pruned

and yet they flower and fruit heavily. However in the garden we demand different things from plants than we do from those growing in the wild. In the wild we don't mind if a tree or shrub has become woody or leggy – in our gardens we prefer lushness and bushiness and in order to achieve this we prune our garden plants regularly. For many plants, especially garden shrubs, the young growth triggered by regular pruning, not only improves appearance but also increases longevity.

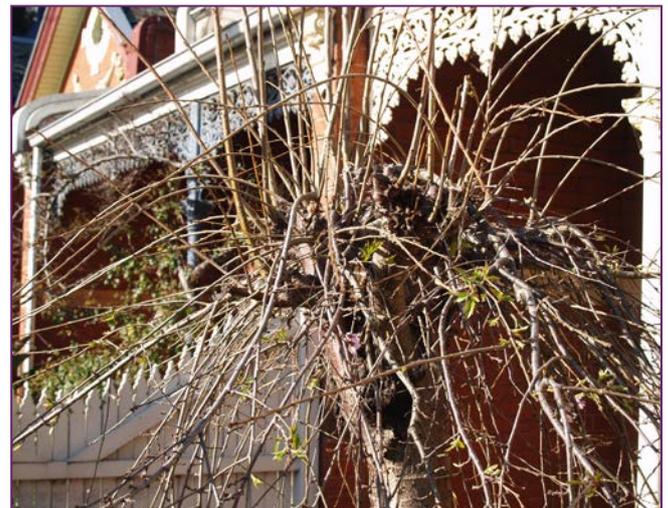
The reasons for pruning of plants, as listed above, is achieved in different ways on different plants and is discussed below.

Removing Broken Branches, Dead or Diseased Wood

Some plants are more susceptible to infection than others when you cut into their living tissue (e.g. birch trees, *Betula* spp. and some herbaceous plants). Such plants are less able to contain wood rots once they start. Therefore, infected wood should be removed and burnt before the disease spreads.



Platanus orientalis will survive and even thrive with heavy pruning every winter.



A “weeping tree” may produce both upright and downward growing shoots. The uprights must be removed and “weeping” shoots thinned annually if the weeping effect is to be maintained.

When a disease attacks plant tissue it typically infects softer growth towards the ends of stems. Plants have adapted to fight the infection by releasing chemicals which form a barrier which the disease can't pass. The tissue on the infected side of the barrier dies off but the rest of the plant is spared.

The dead tissue should be removed because it may provide a base for other pathogens to grow. However, when removing dead tissue it is best not to cut below this barrier otherwise the plant will have to form a new barrier.



Bonsai - *R. indicum Kinsai*

In other cases, it is necessary to cut back into healthy, living tissue. This must be done when the plant has been infected with a fast spreading disease. In these instances, diseases are often visible on the outside of the deadwood. If tissue death has been sudden or rapid do not leave any diseased wood on a plant after pruning. Cut back into living tissue beyond any signs of disease.

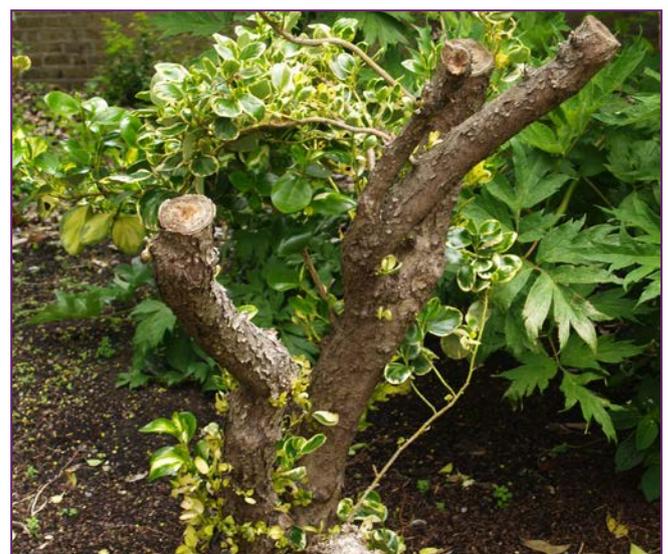
Make your cuts as neat as possible. This means cutting at right angles to the side of the branch or shoot. The only time to cut on an angle is if the stem or branch is vertical. A right angle cut to a vertical branch will create a surface that is parallel to the ground, water collects more readily and sits on the surface for longer on this type of cut, and this can increase the chance of infection.



Clipped balls and hedging brings a sense of “order” to a garden.

Use sharp tools which are less likely to tear or bruise plant tissues. Also, only use clean tools. Each time you prune diseased wood you may pick up disease spores on your tools which can then be transferred to healthy wood of the next plant. It is a good idea to dip secateurs in an antiseptic solution when going from one plant to another.

No matter what you prune, or for what reason, you should always remove any dead or diseased wood when you spot it.



Griselinia can withstand very hard pruning to grow back stronger and healthier than ever.



Long canes of many plants are best managed by tying to a trellis.

Controlling the Type of Growth

There are three main types of plant growth: roots, vegetative top growth (i.e. leaves and stems) and flower or fruit growth. Discouraging one type of growth can help redirect the energy in the plant towards other types of growth.

- Removing all flowers and fruit will usually stimulate vegetative growth.
- Thinning out flowers and fruit will decrease the total number of flowers and fruit, but will usually improve the size and perhaps quality of the remaining fruit.
- Removing side shoots will generally cause a plant to grow taller more quickly.

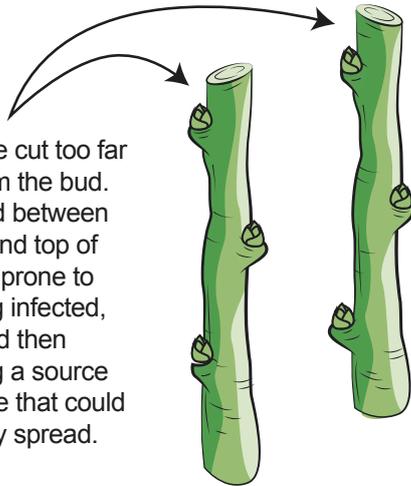
- Removing the growth tips will cause a plant to develop more side shoots and become bushy.
- Cutting a plant back hard (if it can take it) will cause a flush of lush growth in the next growing season.
- Cutting the roots of a plant, by plunging a spade into the soil or digging a trench, will force a flush of new growth in the roots closer to the base of the plant for many plants. This is particularly true for those with fibrous root systems. This root pruning is used to either prepare a plant for transplanting, or to prevent the roots from spreading into areas where they are not wanted. A problem with this treatment is that it can cause poor health, or death in some plants, particularly if the cuts are made too close to the trunk of the plant.



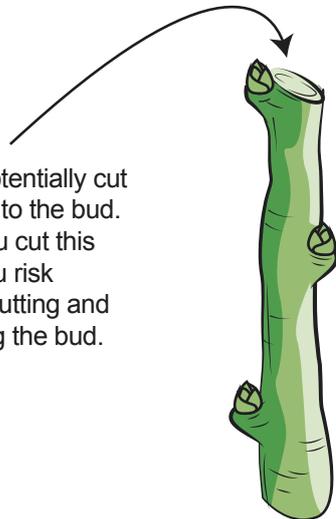
String between a peg and trowel, used to hold a shoot down encouraging more outward than upward growth.

HOW CLOSE TO CUT TO A BUD

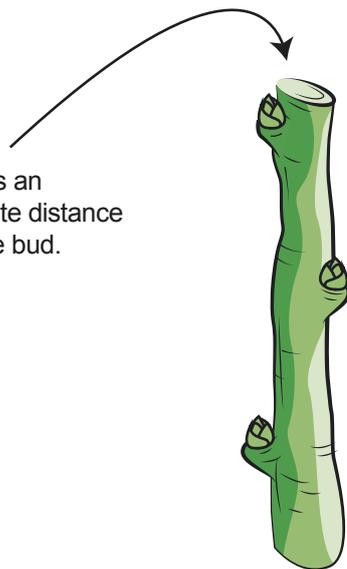
These are cut too far away from the bud. The wood between the bud and top of the cut is prone to becoming infected, dying, and then becoming a source of disease that could potentially spread.



This is potentially cut too close to the bud. When you cut this close; you risk actually cutting and damaging the bud.



This cut is an appropriate distance above the 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); and tall shoots are removed, (containing the height and maintaining 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 what are recognised safe pruning limits for a particular plant before pruning it if you are unsure.

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, then cut it hard back, perhaps even to the base and give it a year to recover. If it regrows you have the plant you want and if it dies then you have a planting opportunity.



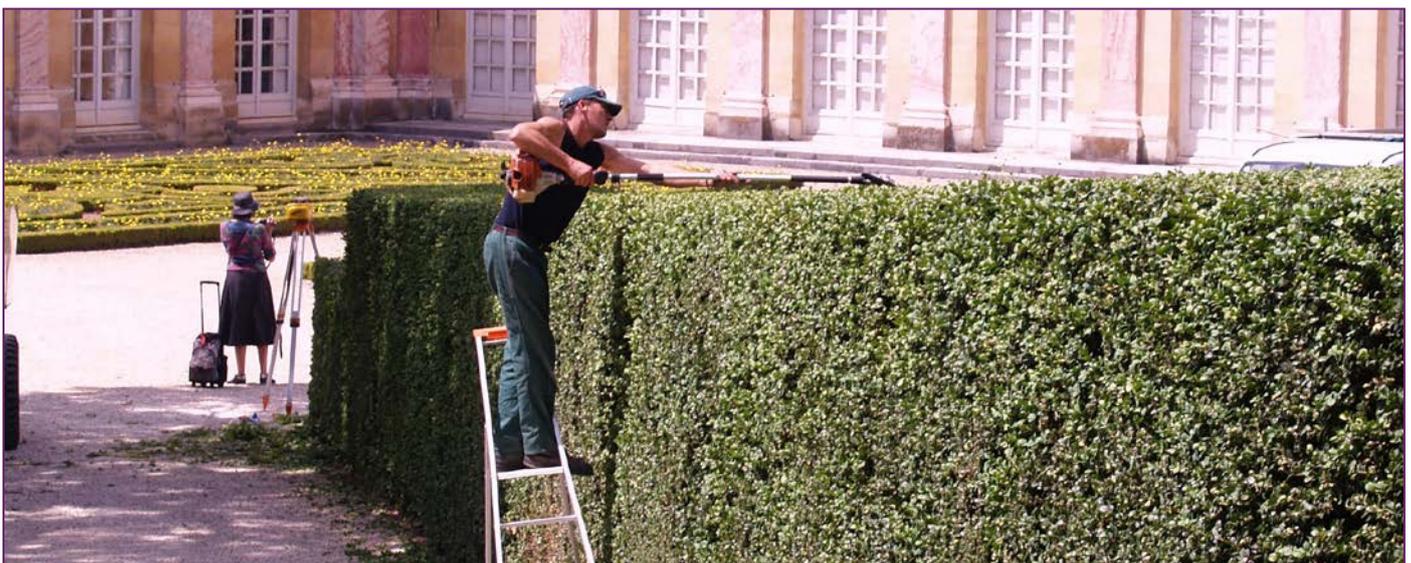
This is called “cordon” pruning - used for decoration or ease of management.

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

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.

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.