

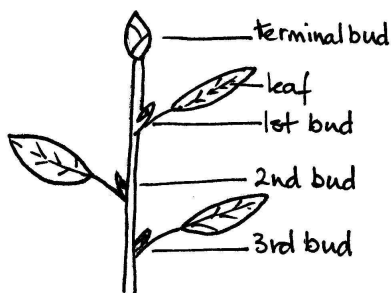
Taflen Wybodaeth Glasu / Glasu Information Sheet – Rhif 5 / No. 5 TOCIO / PRUNING

Pruning is the removal of shoots and branches from trees and shrubs to achieve a desired result. This can be:

1. To form a desired shape in a young tree.
 2. To re-shape and rejuvenate an old tree.
 3. To remove dead wood.
 4. To let light into the head of a tree to help the wood ripen and produce fruit.
 5. To allow the air to flow through the head to reduce the risk of fungal disease.
 6. To remove crossing branches which are being damaged by rubbing together.
 7. To stimulate new growth and increase vigour – winter pruning.
 8. To check growth and stimulate the formation of fruit buds – summer pruning.
- ❖ Pruning should be carried out with clean, sharp equipment.
 - ❖ If working on a diseased tree, sterilise tools before moving onto the next one. This will reduce the risk of cross-contamination.
 - ❖ Wear safety equipment, at least goggles and helmet when working on mature trees.

The Basic Principles

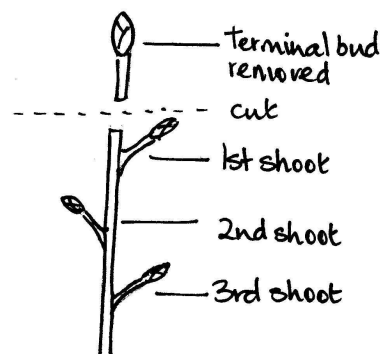
Pruning is often thought to be a complicated and difficult task. If you are able to understand the basic principles it becomes a series of relatively simple and logical steps.



All fruit trees and fruit bushes respond to pruning in the following way. The bud at the tip of a shoot is called the 'terminal bud'. It has special properties in that it produces a chemical inhibitor which travels down the stem under the influence of gravity. The effect of this chemical is to keep the buds below the terminal bud shut down and inactive. This means that the terminal bud has priority over the others when it comes to the food supply. New extension growth takes place with the terminal bud growing upwards towards the sunlight. This is an advantage to the plant as it increases the chances of the leaves obtaining the maximum amount of sunlight and therefore the greatest amount of food.

If the terminal bud is removed by pruning or a pest or a disease, the production of the chemical inhibitor ceases. The result is that the next bud down becomes the terminal bud. It takes over the role and starts to grow and produce the chemical. Often the second and third buds down the stem also start into growth before the chemical has a chance to shut them down. Generally they do not develop as strongly as the top bud.

Buds tend to grow in the direction in you look closely at a shoot you can way each would shoot if it was able to you can choose which bud you want bud and prune to just above it. In this shape of a tree or fruit bush. With half-standards and bush trees, and blackcurrants, it is desirable to shaped head with an open centre.



which they are pointing. If work out in advance which grow. Using this knowledge to become the new terminal way you can engineer the trees such as standards, also soft fruit such as produce a wine-glass

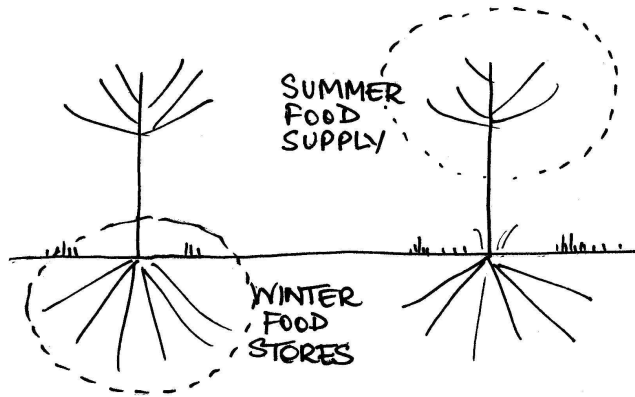
Winter pruning and summer pruning

Pruning can take place at two major times of the year. Winter pruning is carried out when the tree or fruit bush has lost its leaves and is dormant, i.e. December to March. Summer pruning takes place when the plant is in full growth, i.e. July or August. Each season's pruning has a totally different impact on the tree or fruit bush.

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Winter pruning

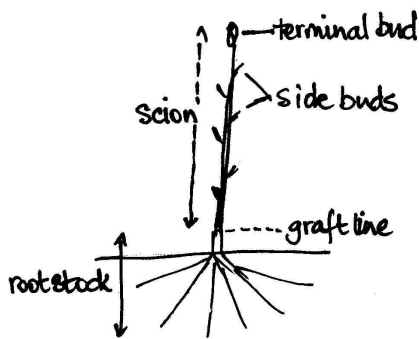
In the winter, the sap containing the plant's food store has drained down into the lower stem and upper root system. When pruning takes place the wood removed does not contain any food. The tree starts back into growth in the spring and there is less remaining wood to be fed. The effect is that the new developing shoots have a greater supply of food than if pruning hadn't taken place. The resultant growth is therefore vigorous. The more wood that is removed during the winter the more vigorous the new growth is the following spring. Winter pruning is used as formative pruning in the early years of a tree's life or as a means of rejuvenating an old neglected tree.



Summer pruning

During the summer, a tree or fruit bush is in active growth. The food supply is spread throughout the tree branches and leaves. When wood is removed food is also taken away. The plant's food supply is depleted and the new growth is not vigorous. The effect also changes the chemical balance inside the tree; this stimulates the formation of fruit buds. Summer pruning is used for restricted forms of fruit such as espaliers and cordons. Trees which are summer pruned are usually pruned every year in July or August and are not winter pruned. Only the current year's growth is pruned during summer pruning.

Shaping a maiden



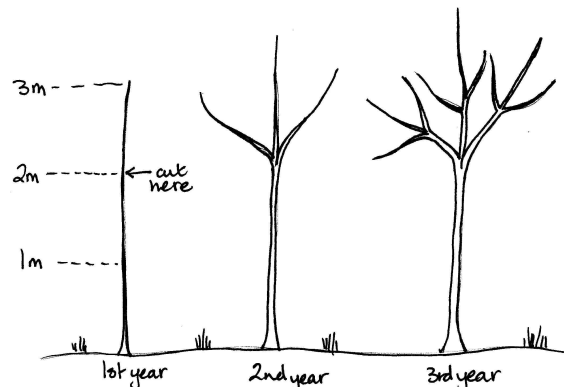
A maiden is a one year old tree grafted the previous year. It usually consists of a single straight stem about 1-2 metres in height. Maidens are the cheapest trees to buy because they have spent the shortest time on the nursery. They are also the most flexible in the sense that they can be pruned into a whole range of different shapes i.e. standard, half-standard, bush, fan, espalier and cordon.

To train the maiden into a standard with a 2 metre clear stem it is necessary to let it grow to about 3 metres in height. Then the top is cut off to just above a bud at approximately the 2 metre mark. This is carried out in the winter.

The following spring three shoots should develop from the three topmost buds. These shoots are allowed to develop and are themselves pruned back to about a third of their length the

following winter. As a result each pruned shoot will send out three shoots the following spring, producing a standard tree with a framework of nine branches.

If the first winter pruning had been at 1.5 metres a half-standard would have been produced. Pruned at 0.5 metres the resulting tree would have become a bush.



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Renovation of neglected trees

Many older orchards consist of trees which have had little or no attention for many years. As a result the branches are over crowded and the fruit quality is very poor. It is possible to prune them successfully so that they come back to better health and far better fruit production.

It is said that if a mature fruit tree has been well pruned 'you should be able to throw your hat through its canopy'. This is an indication that the middle of the canopy is uncluttered so that light and air can penetrate to the centre. You can restore old neglected trees to this condition by removing entire braches from the centre. Remove those that are dead, diseased or dying and the weak and crossing ones. Prune them off right back to the point where they grow out of the main branch system. When you cut branches off make the final cut at the branch collar. There is no need to paint over cut surfaces. Modern research shows that this is ineffective. The tree will heal better without this treatment.

Many of the larger branches you wish to remove may be quite heavy. If you try to take them off using only one cut there is a risk of the bark tearing. Remove them a bit at a time starting out at the branch ends and working towards the trunk.

To take the final 50 cms off any branch use the three cut method:

1. The first cut prevents the bark from being ripped from the trunk when the limb falls. Place the saw blade on the underside of the branch 15 cms out from the trunk. Cut all the way across the bottom of the branch cutting about ¼ of the way into the branch. Any deeper and the saw blade may jam.
2. Make the second cut just outside of the first cut (away from the trunk). Cut from the upper side all the way through the branch until it falls from the tree.
3. The third cut can be made from the top of the branch just outside the branch collar. Cut angled down away from the tree.

