

Proper pruning is a simple procedure once the principles behind the process are understood.

The reasons or need for pruning is for the following reasons:

- 1. To control a plants growth or direction:** when a branch is pruned at the end of a stem the growth on this branch stops encouraging new growth in other directions.
- 2. To promote the health of the plant:** some plants produce vigorous growth for one or two years after this. Hard pruning out 2-year wood helps encourage strong new growth. *Example: Forsythia.*
- 3. To encourage flower and fruit production:** proper pruning will help to encourage and enlarge the production of both flowers and fruit. *Examples – fruit and nut trees, roses*
- 4. To rejuvenate and repair:** older plants and those adversely affected by the weather (wind, ice & snow) can all benefit from proper pruning to regain their proper form. Overgrown plants can be thinned out and retrained with the removal of weak, crossed and broken branches. In severe cases the plant may have to be cut back to a main frame of limbs. Some plants are quite brittle and will suffer damage quite easily in the wind and weather and should be regularly thinned back each spring. *Examples - Weeping Willows and Robinias*
- 5. Pruning to achieve an effect:** This involves pruning a plant to a desired shape for both beauty and functionality. *Examples - hedges, topiary, espalier, pleaching and pollarding.*

TOOLS:

Starting with the proper tools needed for the type of pruning you are doing is essential. When shopping for tools look for good quality, design, comfort and a weight that suits your needs. A good pair of shears may seem expensive but they will not only make your job easier but will last a lifetime with proper care.

SAWS:

Folding saws - this is the most popular saw, having blades 7-16" long. Small saws with fine teeth (8-10 per in.) are good for roses and small shrub pruning
Larger saws, (6 teeth per in.) will handle larger branches up to 1" in diameter.

Curved saw with rigid handle - this saw will not fold during use (no painful consequences). These blades vary from 12-16 " and can handle larger cutting of limbs up to 2" in diameter.



LOPERS (ANVILS):

Two-handed shears have long handles giving you added leverage and extra cutting power for those larger branches. The longer handles also extend your pruning reach. There are two basic design choices; the hook and blade style and the anvil style. The hook and blade style is preferred by most gardeners (anvil style are not used much anymore) and also the lever action is easier to use.



HEDGE SHEARS:

These two-handed, long bladed shears are a must for maintaining informal hedges and shrubs. The better quality shears can be used longer without having to be sharpened. The standard blade length is 8" and handles come in several different materials so look at the different styles and find one that is comfortable for you.



HAND SHEARS:

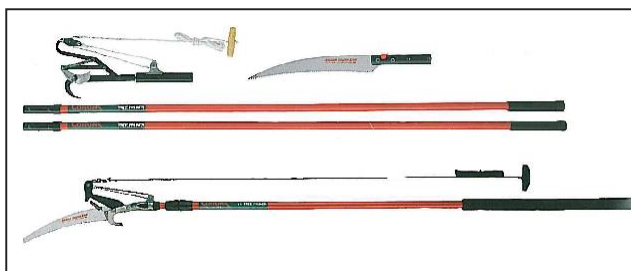
Again these tools come in two basic designs: the hook and blade style and the anvil style. The hook and blade we feel are best for pruning, giving an easy, smooth clean cut. The most popular varieties are FELCO and CORONA. All hand tools should have their blades sharpened with a stone and cleaned with rubbing alcohol, then lightly oiled. This is especially important when you go to store your tools for the winter.



NOTE: You must keep your pruning tools sharp for optimum performance, dull pruning instruments can result in frayed cuts that will be slow to heal and can lead to an increased chance of infection from fungal/bacterial pathogens.

POLE SAW AND PRUNERS:

These tools are useful in giving you extra reach for cutting those high branches (without having to get the ladder out). Most have blades that cut on the pull stroke. The poles come in wood, aluminum and fiberglass; some are extendable and lock into the desired length. Most have saws that can be attached to the pole top for those thicker branches.



PRUNING HEDGES

A hedge is a living wall or fence consisting of one or more species of plants. The plant makeup can either be evergreen or deciduous. Proper pruning from the onset will help produce a much better quality hedge than one left too large before pruning commences.

There are 2 types of hedges: formal and informal

a) Formal hedges are sheared so that their sides are perfectly straight with the tops either rounded or smooth. They have a very rigid straight look to them.

Example-Boxwood.

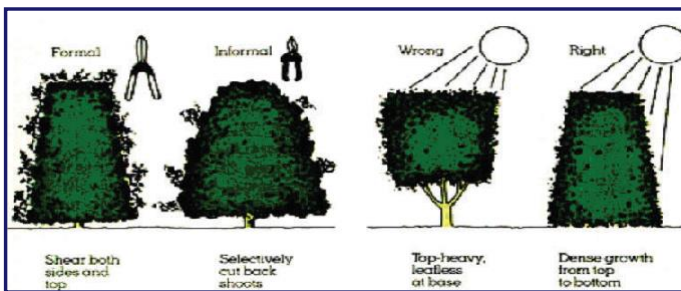
b) Informal hedges are shaped as much as possible to their natural shape. Pruning is accomplished by selectively cutting back out stretched branches. This type of hedge has a softer appearance. **Examples – Rhododendron's & Native Cedars.**

Quick tips:

-Taper hedge so that the bottom is wider than the top to allow penetration of sunlight to the bottom of the plant.

-Trim yearly even when plants are young. As the hedge matures you will want to prune off most of the previous years wood.

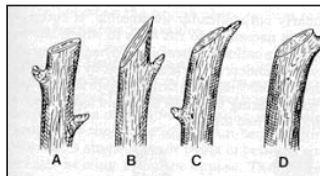
-If pruning more than once a year make sure to prune early enough in the season so that any new growth produced after pruning has sufficient time to harden up before winter.



PRUNING FRUIT TREES

Why is it important to prune your fruit trees?

- It encourages fruit production
- Repairs storm damage from Winter
- To thin dense growth
- For a spiral effect or renewal



- a) Pruned too high above bud.
- b) Too long a cut-pruned too far above bud.
- c) Pruning too close to bud.
- d) Proper pruning.

Before you take your first cut on your fruit trees it is very important to know how these plants grow. By pruning you are ultimately stopping growth in one direction and encouraging it in other directions, guiding the shape of the tree. Here are a few important parts of the structure of the fruit tree.

The terminate bud: This bud grows at the end of the stem/branch and it grows in a line by elongating the branch. When you cut off this bud you divert energies to buds along the branch thus encouraging a denser, branch structure.

The lateral bud: These grow along the sides of the branch. As the tree develops these buds may develop into lateral branches. By removing these lateral buds, you channel the growth into the terminal bud. These lateral buds can live dormant under the bark and will grow only after pruning or injury removes the growth above them.

THERE ARE FOUR MAIN TRAINING STYLES TO PRUNING FRUIT TREES:

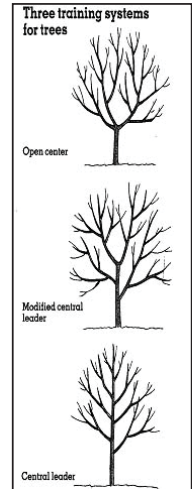
1. Open central system: select two strong laterals on each of the main branches to become part of the main framework of the tree. Prune back each of the main branches to the outer lateral that you want to direct the growth into. Then prune the lateral branches back to 2-3 feet if they are long enough.

2. Modified central leader: For this type of pruning style you must allow four to six limbs to develop on the trunk before stopping the central leader. After choosing the six branches you can then bend the leader over to one side to make it the top branch of the tree structure. Now you can continue to prune back the young branches to encourage a strong framework.

3. Central leader: This style of pruning produces a straight-trunked tree. As you prune back the lateral, as well as the leader make sure that the top shoot of the pruned leader grows vertical again. Prune back your main and lateral branches always keeping the lower limbs longer than the ones above it so you maintain a pyramidal-shaped tree.

4. Espaliers: The training of trees or shrubs to grow predominately against walls, trellis or fences. Plants trained to grow on espaliers are often trained on wires fastened to an appropriate structure.

Espaliers are often used for fruit trees to save space and to increase fruit production. But it is also used to create a more interesting plant or attractive patterns for walls and fences.



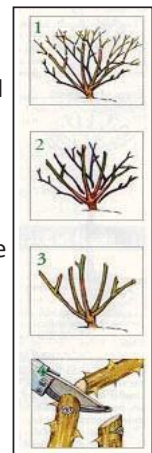
ROSES

Prune to help promote vigor and to give them direction. Pruning roses gives the plants shape, style, removes old weak wood and promotes good air circulation, helping in the prevention of black spot.

When to prune:

Prune before new growth begins in spring, after the last killing frost. Prune in fall only if plants are extremely tall to prevent damage during the winter.

What to prune: prune out weak or diseased canes and those canes that have been winter damaged. Winter damaged canes, which look light brown on the outside are light brown and dry inside. These branches should be cut back 1 to 2" below the base of the damaged branch. Any crossed or weak branches should also be removed.



HOW TO PRUNE

- 1) Trim out twiggy top growth by about a third so you can properly see the branch structure.
- 2) Take out any dead wood, canes that cross the center of the bush and all growth found below the bud union (graft) of the rose. Any growth, which originates from below the bud union, is the rootstalk of the plant. Allowing this growth to remain will cause the grafted portion of the rose to die off due to lack of nutrients leaving only the inferior flowering under stalk.
- 3) Shape the plant by removing weak growth and gradually reduce the size of the rose to about 5-10 strong healthy canes.
- 4) When pruning the individual branches cut $\frac{1}{4}$ " above an out-facing bud. New growth will originate from this bud and will grow outward from this point thus allowing light and air movement into the center of the rose. This will result in stronger flowers and less disease problems.

Shrub Roses:

Cut back a few of the oldest stems to the base, this will encourage the plant to produce vigorous new shoots in their place. Prune any overly aggressive shoots by 50% and reduce the rest of the growth by one third. Lightly trim throughout the summer to encourage re blooming.

Climbing Roses:

Climbing roses usually bloom best on two-year-old wood so prune lightly on these plants. It is best to take out any spindly or new wood, any older wood that is no longer blooming at its peak and any damaged or diseased wood.



Tree Roses:

Prune these back by about half each year (top growth not main trunk) to help encourage new strong growth in a compact form.

English Roses:

Over the first two planting seasons trim back only light inferior twiggy growth allowing a strong basic framework to develop. After the second year prune by one half to produce a smaller shrub with larger flowers or by one third to produce a larger shrub with smaller flowers.

NOTES FOR PRUNING

1. **Flowering Plants:** Flowering plants, especially those that produce flower buds on old wood, are best pruned only after flowering, this is to avoid removing flower buds that have already been developed on the plant.
2. Pruning cuts should always be made on a 45 degree angle directly after an

outward facing bud to avoid die back and allow for proper branching development.

3. **Ornamental Grasses:** Perennial grasses can be cut back in either fall or early spring once when dormant. Evergreen grasses that have begun to look weathered can be pruned back hard in early spring which will cause the plant to regenerate with new growth.
4. Prune off any broken, diseased or damaged branches. You should also remove any crossing branches to avoid damage from abrasions as the plant matures.
5. **Raspberries:** In late winter, cut back any two year old canes to the ground, you will be able to identify these canes by their darkened colour, peeling bark and lateral branches with spent fruit or flowers. Raspberry canes only live two seasons and by cutting these older shoots to the base we leave room for the emergence of an abundance of new one year old shoots that will produce fruit the following season. The next step is to remove any canes that are growing outside of your designated row, we typically recommend keeping rows no more than 2' wide to allow for best disease management and fruit picking.
6. **Grapes:** Once you have established a branching structure, all side shoots that emerge should be cut back to 2-3 buds each year and any shoots less than the diameter of a pencil should be removed entirely. Grape plants only produce on one year old shoots and by removing most of our growth each season we can encourage an abundance of vigorous, fruit bearing shoots.
7. **Lavender:** Some selections of English Lavender (*Lavandula angustifolia*) bloom both in summer and fall. These selections should be pruned back hard immediately after blooming to avoid an excess of hardened woody stems.

COMMON PLANTS AND THEIR CORRECT PRUNING TIMES

Plant	Pruning Time
Abelia	Early Autumn to Early Spring
Akebia	Spring or Summer
Azalea	After Flowering
Bamboo	Anytime of Year
Boxwood	Spring to Early Summer
Camellia	After Flowering
Cedrus (Cedars)	Spring
Cotoneaster	Winter to Early Spring
Current	Late Winter
Daphne	During Bloom
Erica (Heather)	After Flowering
Fagus (Beech)	Late Winter
Fatsia	Early Spring or Summer
Fig	Winter
Hamamelis	After Flowering
Jasmine	After Flowering
Japanese Maples	Later Summer
Lavendender	After Flowering
Ligustrum (Privet)	Late Winter through Summer
Liquidamber (Sweetgum)	Late Winter or Summer
Mahonia	After Flowering
Malus (Apple or Crabapple)	Winter or After Flowering
Magnolia	Summer
Nandina (Heavenly Bamboo)	Winter or Early Spring
Picea (Spruce)	Spring
Pieris	After Flowering
Photinia	Late Winter, Early Spring
Prunus (Laurels)	Early Spring
Pyracantha	Winter After Berries Drop
Sarcococca (Sweet Box)	Anytime
Skimmia	Spring or Summer
Thuja (Arborvitae)	Early Summer/Early Fall
Viburnum (summer flowering)	Winter
Viburnum (spring flowering)	After Flowering