

# GREEN TIPS

Department of Horticulture - Michigan State University

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## PRUNING LANDSCAPE PLANTS

Pruning is removing plant parts to improve the health, landscape effect or value of the plant. Once you have determined the objectives and understand a few basic principles, pruning is primarily a matter of common sense.

You can reduce the need for pruning considerably by selecting the proper plant for the location. Plants that tend to grow vigorously can become overgrown and unsightly with age. New plant selections allow you to select from lower growing or dwarf plants. Even the choicest landscape plants will require some pruning, however, so the guidelines here pertain to the newest cultivars as well as older plants.

### Why prune landscape plants?

- To maintain the natural shape of the plant.
- To maintain or limit the size of a plant.
- To remove undesirable growth that would detract from the appearance.
- To remove broken, unsightly, diseased or insect-damaged growth.
- To develop a particular form, such as a hedge.
- To produce compact growth and prevent spindly habits.
- To promote new growth, particularly in older shrubs.
- To improve future flowering and/or fruiting by removing old flowers and fruit.

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- To improve the chances of survival at transplanting time.
- To maintain maximum coloration on plants selected for twig or stem color.
- To improve or maintain flowering by removing some branches so more light can penetrate the interior of the plant.
- To direct or correct the growth in shade trees to prevent problems later--e.g., eliminating weak crotches or poor branch attachments.
- To remove suckers and/or water sprouts.
- To rejuvenate old, declining plants by removing older wood so young growth can develop.
- To increase safety to humans or property under trees by removing large branches that are weak or broken.

### **When is the best time to prune?**

Pruning can be done anytime during the year, but recommended times vary with different plants. Pruning at the wrong time of the year will not kill a plant, but continual improper pruning can result in damage or decline. Pruning should not be done at the convenience of the pruner, but rather when it results in optimum plant growth. Keep this rule in mind and there is little chance of damaging the plant.

In general, the best time to prune most plants is during late winter or early spring before growth begins. (Exceptions to this rule will be noted in the discussion of specific plants.) The least desirable time is immediately after the new growth has developed in the spring. A great amount of stored food within plant roots and stems has been used to develop new growth, and this food should be replaced by the new foliage before it is removed. Otherwise, considerable dwarfing of the plant may occur.

It is advisable also to limit the amount of pruning done late in the summer because this practice stimulates new growth on some plants. This growth may not have sufficient time to harden off before cold weather arrives and so may be damaged or killed by low temperatures. Late pruning also removes valuable food reserves.

Plants damaged by storms or vandalism should be pruned as soon as possible, regardless of the season.

Prune when twigs, branches and limbs are dry and when no wet weather is in the forecast for a week. This is most important in fall and spring, when diseases are active and easily transmitted to vulnerable plants. Whenever possible, avoid pruning the tender spring flush of growth to avoid tearing new bark tissue and opening wound sites for disease organisms to enter.

Most ornamental landscape plants will remain healthier if you do some pruning every other year to thin out and open up the plant's interior canopy to improve light penetration and air circulation.

Sometimes it is necessary to prune ornamental landscape plants to remove twigs or branches infected by such diseases as anthracnose, canker and rots, *Cytospora* canker, *Diplodia* tip blight, fire blight, or one of several twig blights or dieback diseases. The infected part should be removed 12 inches or more beyond any external or internal evidence of infection and back to a living lateral branch. To keep from transmitting diseases from a diseased to a healthy plant, disinfect tools between cuts and always between plants by dipping or spraying the blade surfaces with alcohol or liquid chlorine bleach diluted 1 part bleach to 4 parts water.

### **How to prune ornamental plants**

Sharpen pruning equipment so all cuts are smooth to encourage rapid healing. Do not leave stubs--they usually die back, and once dieback starts, the diseases may easily spread to perfectly healthy tissue. This can be very serious, especially if large branches or the main trunk of the plant is involved. Dieback may also occur if branches are broken off rather than cut.

No two plants are exactly the same, so each may have to be pruned a little differently to keep its natural shape. Some specific rules are given in the discussion of how to prune various plants.

In most instances, it's advisable to cut back each stem to a bud or side branch. It's usually desirable to select buds that are pointing toward the outside of the plant rather than buds pointing to the inside. Shoots growing from buds pointing inward will grow through the interior of the plant or crisscross one another. This often results in damage to the stems or unsightly growth or shape. To open up a woody ornamental plant, prune out some of the center growth and cut back the terminals to buds that point outward.

### **Results of pruning**

When a branch is cut off, new growth will usually occur at the buds nearest to the cut. When a branch tip is removed, the nearest side buds grow much more than they normally would and the bud nearest the pruning cut will become the new branch tip. If you want more side branches to develop, remove the tip.

The strength and vigor of new shoots are often directly proportional to the amount that the stem is pruned back. For example, if a deciduous shrub is pruned to 1 foot from the ground, the new growth will have little competition for light, moisture and nutrients. Consequently, it will be vigorous with few, if any, flowers the first year. However, if only the tips of the old growth are removed, most of the previous branches will still be there and new growth will be shorter and weaker.

Flowers will be more plentiful, although smaller. Thus, if you want a large number of small flowers and fruits, prune lightly. If you want fewer, but high-quality blooms or fruits in succeeding years, prune extensively.

When two or more stems of equal size and vigor are competing for dominance, you can control the height of the tree or shrub by the amount you cut them. If you leave one appreciably taller than the other, it will eventually become dominant.

## **Pruning equipment**

Knowing and practicing the rules of pruning are most important, but almost equally important is using the right tools. It's not necessary to have an extensive collection of equipment. All you need are tools that are matched to the job, keep a sharp edge, and are easy to sharpen and handle.

Some of the most commonly used pruning tools are shown in *Fig. 10*. Proper care will help equipment do a better job and last longer. Keep equipment sharp and in good operating condition and store it in a dry room.

When pruning diseased plants, disinfect all shear and saw blades with alcohol or liquid chlorine bleach after each cut to prevent spreading diseases to healthy plants.

**Power equipment**, such as lightweight chainsaws, can be purchased or rented. These are particularly useful in cutting fallen trees or large limbs. For pruning in trees, power saws should be used only by professional landscape managers.

**Hedge shears** are used mainly for shearing plants into hedges or formal shapes. The most common type is manually operated, but power driven shears may be more practical if large areas of hedges are involved.

**Pruning saws**, both rigid and folding, are very useful for cutting larger branches than hand shears or loppers can handle. Tree saws are available also for cutting large tree branches. Pruning saws, which usually cut on the pull stroke, are preferred over carpenter's saws because they cut faster and easier.

**Pole pruners** are used to remove tree branches that cannot be reached from the ground. Two types are generally available. One has a small tree saw attached to the end and can be used to remove small as well as large branches. The other and more commonly used type of pruner is similar to a large pair of loppers. The operator pulls on a rope or lever to bring about a cutting action.

Pruners of both types are available in various lengths. The poles--wood or aluminum--either are one piece or consist of collapsible sections.

**Lopping shears** are for cuts larger than those made with hand shears. Usually they will cut branches up to 2 inches or more, depending on the size of the blade opening. Select loppers with handles no longer than are comfortable to use.

**Hand pruning shears** are of many kinds. Most of them are designed for cutting stems up to ½ inch in diameter. If you have to twist the shears to make a cut, the branch is too large. Make a close cut by placing the blade of the shears against the branch or trunk from which the limb is to be removed. The blade should cut upward (*Fig 11*).

FIG.10

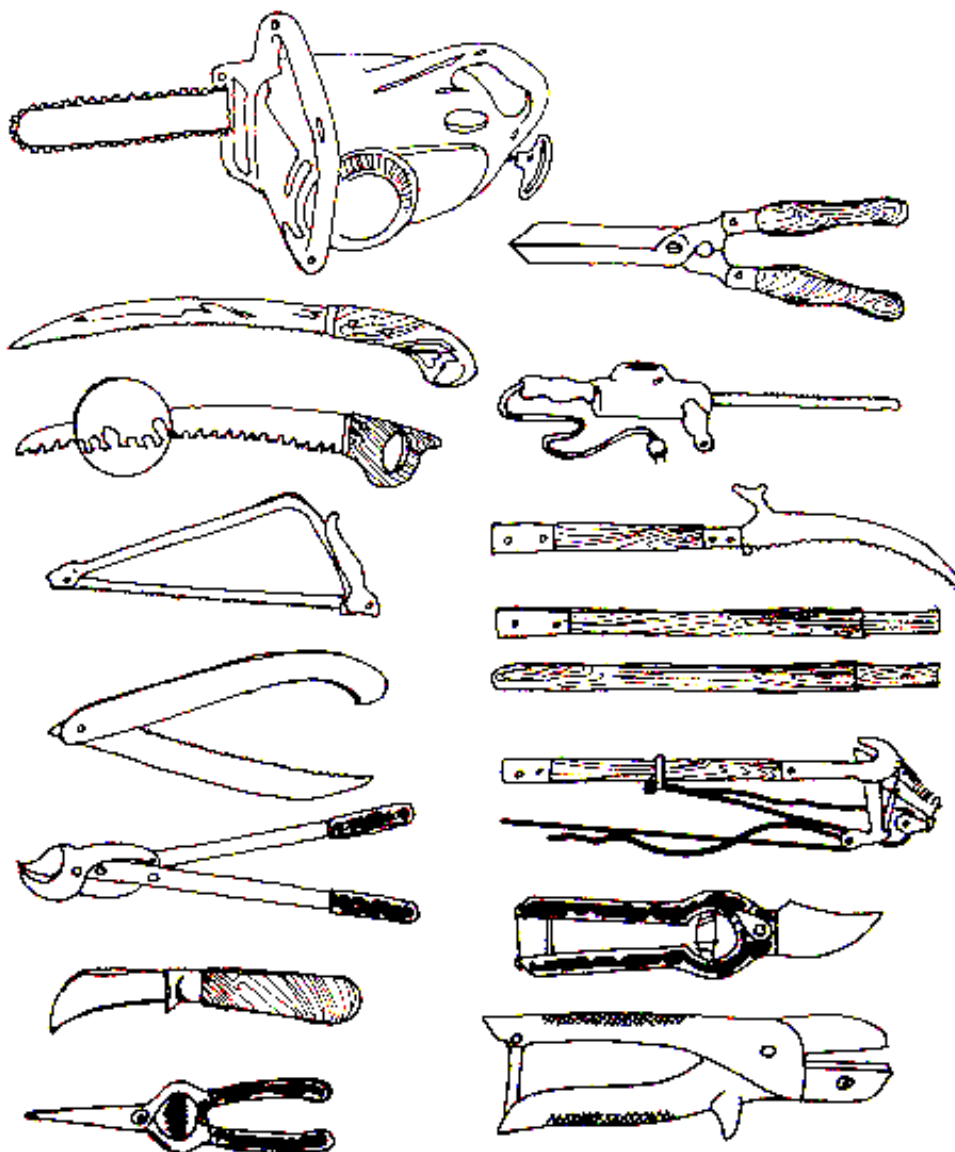
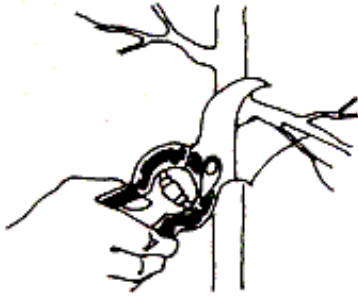


FIG. 11



USE HAND PRUNING SHEARS FOR STEMS 1/2 INCH IN DIAMETER OR SMALLER. CUT CLOSE TO THE BRANCH OR TRUNK FROM WHICH THE LIMB IS TO BE REMOVED.

## General pruning procedures

1. Prune out any dead, broken, severely damaged, diseased and insect-infested branches.
2. Remove any branches that detract from the shape of the plant. Remove branches that grow through the middle of the plant or that cross each other, resulting in damage to one or both branches.
3. Start pruning when plants are young. It is easier to prevent problems and maintain their natural shape if you start when plants are young.

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