

PRUNING ORNAMENTAL PLANTS

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Pruning Ornamental Plants

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Pruning ornamental trees and shrubs is a practice that most homeowners regard with unnecessary apprehension. Pruning is not difficult if you know why you are pruning and have a good idea of what the plant should look like after it is pruned. Many individuals make unnecessary pruning work when they are landscaping their homes by planting shrubs that are too large and will hide the home, by planting trees where they will interfere with utility lines or by planting too many large plants in the landscape. Planting dwarf shrubs or planting trees where they will not interfere with utility lines not only saves the labor of pruning but also usually makes the landscape look better.

Why Prune Plants?

- To maintain or limit the size and shape of a plant so that it does not overpower the landscape.
- To remove undesirable growth that distracts from the balance and symmetry of the plant.
- To remove diseased, insect infested or storm damaged wood.
- To promote compact growth.
- To increase the vigor of declining plants.
- To stimulate flowering and fruiting in old plants with poor vigor.
- To direct or train trees to grow in the desired form to eliminate future problems.
- To remove limbs that are interfering with structures or utility lines or creating a visibility problem.
- To allow the growth of other plants under or adjacent to the pruned plant.
- To correct problems created by past improper pruning.
- To remove weak or narrow crotches from shade trees before they split in a storm.
- To develop a specific plant form such as hedge or espalier.

This is but a partial list of the reasons why ornamental plants might be pruned. Reasons such as "because they need it" or "I thought you were supposed to prune" are not very good ones.

Myths About Pruning

- **Pruning is difficult.** Pruning is easy to do correctly if one knows a little about the growth habits of the plant and knows what the plant should look like after it is pruned.
- **Plants will die if pruned at the wrong time of the year.** Plants may be injured but seldom, if ever, are they killed by pruning at the wrong time of the year. Pruning time should reflect the type of growth desired and the flowering habits of the plant.
- **All pruning must be done during the winter.** Actually many plants are best pruned during the growing season. Even summer pruning of shade trees can have its advantages.
- **Dehorning shade trees will keep the tree from causing damage to the home.** Dehorning, or the topping of a shade tree, results in the production of many competing shoots. Each of these shoots will be smaller and weaker than the original limb. Eventually, if the plant is not cut back every few years, these limbs will usually split from the plant due to the competition between them and due to the wood rots that enter such severely pruned trees.
- **Removing a tree is a sin against nature.** If a plant is in the wrong place and must be mutilated to keep it from getting into utility lines, it is a sin not to remove it. Once the tree is removed, another tree can be planted away from the lines. This tree will not have to be mutilated to maintain its size.
- **Most trees need pruning.** Actually, very seldom do mature shade trees need pruning. Shade trees should be pruned only with definite goals in mind.
- **Hedge shears are all you need to prune shrubs.** Actually, hedge shears are intended to prune hedges. Using them on shrubs that are not intended to be hedges destroys the natural grace and beauty of the plant.
- **Anyone with a pickup truck and a chain saw is a qualified tree pruner.** There is no state law requiring the licensing of tree pruners in Arkansas; however, some individuals that do pruning work are not

knowledgeable of proper pruning practices. Never hire a tree pruner who stops and tells you that your plants need pruning and he will do it right away.

- **All cut surfaces must be treated with tree paint to prevent decay.** The use of tree paint to treat cut surfaces has long been recommended, but there appears to be little benefit to the use of these compounds in preventing the entrance of wood decay organisms. They do give a pruning job a more professional look when used.

When to Prune

Most plants can be pruned safely at almost any time of the year. There may be a period of time when pruning is preferred due to flower or berry production (see Table 1), but the survival of the plant being pruned will not be jeopardized if not pruned at that time. Many people have the idea that late winter or early spring is the time to prune plants. This is true for orchard crops which are being pruned for the specific purpose of increasing the fruit yield and maintaining size. Also, orchard workers have more time on their hands at this time to do the time-consuming task.

The best way to determine when a plant should be pruned is by timing it in relation to its flowering period. If the plant is spring blooming and primarily

grown for its blooms, such as forsythia or dogwood, pruning should follow the bloom period. Pruning prior to blooming will remove some of the blooms. Spring blooming plants actually initiate their blooms in the fall prior to the spring they bloom. Summer blooming plants such as rose-of-sharon or crapemyrtle bloom on the current season's growth and should be pruned in the spring just prior to bud break.

If the plant is not grown for flowers, the best time for pruning is usually dependent on when the plant will recover from pruning the fastest. Severe pruning should be delayed until just before growth starts in the spring so that you do not have to look at the bare stubs any longer than necessary. Heavy pruning of all plants should not be attempted in late summer or early fall due to the possibility of stimulating late season growth which will not have the opportunity to harden off before winter sets in. Storm damaged plants should be pruned as soon after the damage occurs as possible.

Some shade and flowering trees tend to bleed heavily if pruned in the late winter or early spring. This plant sap contains sugars, minerals and other growth compounds needed for the initiation of growth in the spring. This bleeding is usually not harmful to the tree but is unsightly. Because of this bleeding problem, these plants should be pruned in the late spring or early summer after the foliage is on the tree. At this time, the foliage will use the plant sap and the cut surface will heal over more quickly. Plants such as maples, elms, willows, birches, beeches and dogwood fall into this group of heavy bleeders.

Table 1. Pruning According to Season of Bloom

Spring Flowering Trees and Shrubs Best Pruned Immediately After Flowering:	
Azaleas	Lilacs
Beautybush	Magnolia
Crabapple	Mock Orange
Deutzia	Redbud
Dogwood	Shadbush
Doublefile Viburnum	Shrub Honeysuckles
Flowering Cherry	Shrub Roses
Flowering Quince	Smoketree
Forsythia	Spring Blooming Spireas
Hawthorn	Snowball Viburnum
Summer Flowering Trees and Shrubs Which Should be Pruned Before Spring Growth Begins:	
Beautyberry	P.G. Hydrangea
Chaste Tree (Vitex)	Mimosa (Silk Tree)
Crapemyrtle	Rose-of-sharon
Glossy Abelia	Summer Blooming Clematis
Hybrid Tea Roses	Summer Blooming Spireas
Trees or Shrubs Which May Be Pruned Before or After Bloom:	
Cotoneaster	Snowberry
Pyracantha	Tea Virburnum

Results of Pruning

Proper pruning should result in the control of plant growth for ornamental purposes. If pruned at the correct season and the plant not allowed to overgrow the setting, the landscape should undergo little disruption due to pruning.

One result of pruning is the overstimulation of the pruned plant. This usually occurs when the plant is pruned during the dormant season. The foliage produces food for the growth of the plant, and excess food is stored in the roots. In the fall, all of the available food supply in the top of the plant is moved to the roots or major branches or limbs. If the plant is heavily pruned in the winter, the normal balance between roots and shoots is changed and in the spring the available supply of food goes to a smaller top. This increase in available food to the top results in increased sucker growth. Pruning during the growing season reduces rapid regrowth.

As a tree seed germinates and begins to grow, there is just one growing point, the terminal bud. As the stem elongates, several nodes will be produced. A **node is the area where the leaf attaches itself to the main stem.** Usually from one to three buds are produced at each of these nodes. The terminal bud produces a compound called "auxin" which prevents these buds from growing. However, as the lateral buds get further from the terminal bud, the terminal bud has less control over the lateral buds and some of them begin to grow. These growing buds then in turn will control the buds below them on the stem. The amount of control exercised by the growing terminal depends on the species. Plants such as pin oak and Colorado blue spruce have a pyramidal habit of growth, primarily because the growing terminal controls the growth of the adjacent terminals more than the ones further away. Other plants such as the silver maple tend to produce multiple stems which all try to compete for the terminal position.

As the stem of the plant enlarges, many buds never have the opportunity to grow. These remain dormant on the stem and await their chance for growth. If a large limb is cut off, many of these buds will break dormancy at the same time and attempt to become the dominant terminal. But, because they all started growing more or less at the same time, they are not able to control the growth of adjacent shoots. What happens is that the shoots compete for space on the cut limb, light and food from the plant. Due to this competition and crowding, the stems usually are weak,

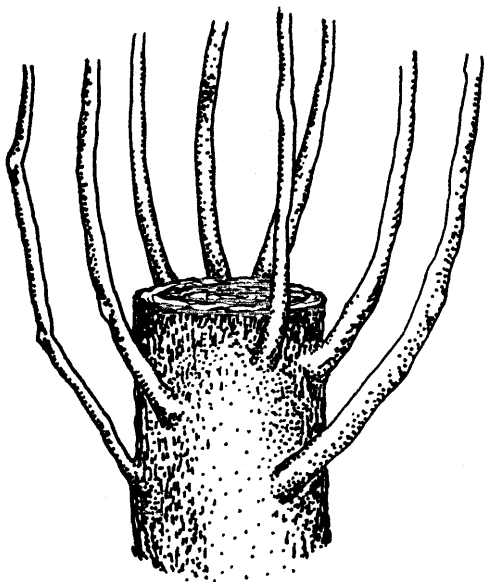


Figure 1. When a limb is dehorned or topped, many fast growing suckers will develop. Each of these suckers compete for space and food. As a result, they weaken each other. Never cut limbs back as shown above, but instead always head back to a major limb or single bud.

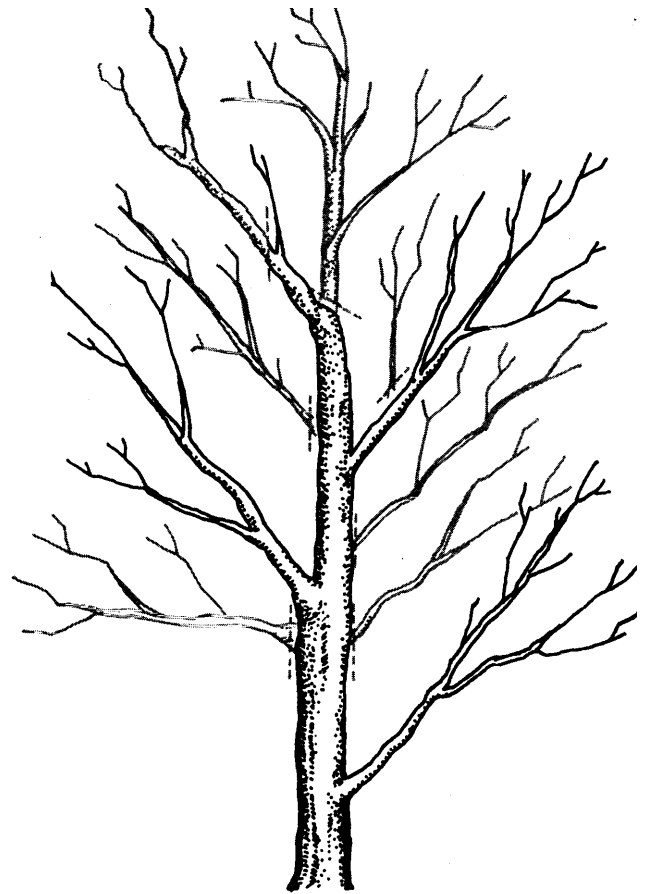


Figure 2. Some size control is possible on a tree that is too large; however, the total amount of reduction in size that can be achieved is usually fairly small. If the tree is too large and must be pruned often to control its size, then it should be removed and a species of the correct size planted in its place.

and if the plant is not pruned again in a few years, these new limbs will begin to break off.

When pruning never cut off a limb unless there is another shoot to serve as a growing terminal. This usually means on large limbs that the limb should be taken all the way back to the main limb or trunk of the tree. If size reduction is desired, it is possible to cut back a portion of the limb but still leave a branch to serve as a growing terminal. The limb that is left as the new growing point should be at least one-third the size of the main limb.

Trees tend to be self pruning if left alone. As the outer portion of the tree canopy expands, some of the smaller diameter wood and some of the limbs on the lower portion of the tree are not able to get enough light to produce food. Once this limb stops producing food of its own, the plant begins to shut off its flow of water and nutrients and the limb slowly dies. After a while it will fall from the tree.

Some people accomplish the same thing by pruning when they cut back some of the lower limbs on a tree so that the limbs are not able to get enough light to survive. Pin oaks are a common example of this. If the limb is cut back so it receives insufficient light, cut it off completely to the main trunk.

What Should You Prune?

Most homeowners can prune all of their own shrubs, flowering trees and young shade trees. If shade trees are pruned properly while young, additional pruning may not be required later on. Because of the equipment required and the danger involved, it is not advisable for homeowners to tackle the job of pruning established shade trees. For this work, call in a professional.

When selecting an arborist to prune shade trees, make sure that he is knowledgeable about tree pruning and that he thoroughly understands what your pruning goals are. Check with local nurseries or your Cooperative Extension Service office if you have difficulty locating a person in your area to do tree pruning work.

Caring for Bark Wounds

Make every effort to prevent injury to a plant's bark because such wounds may ultimately lead to a cavity. Bark wounds, regardless of the shape, will heal in a lens-shaped fashion. To expedite this healing, remove some of the bark around the wound to develop this lens-shaped pattern (see Figure 3). Watering and fertilizing the tree will encourage rapid healing of wounded areas.

Much debate exists about the benefit of tree wound dressing in preventing wood decay in wounded trees. Current research indicates that the practice may be of more advantage from an appearance standpoint than from a decay prevention standpoint. If you treat the wound, make sure the material is specifically for use on living trees.

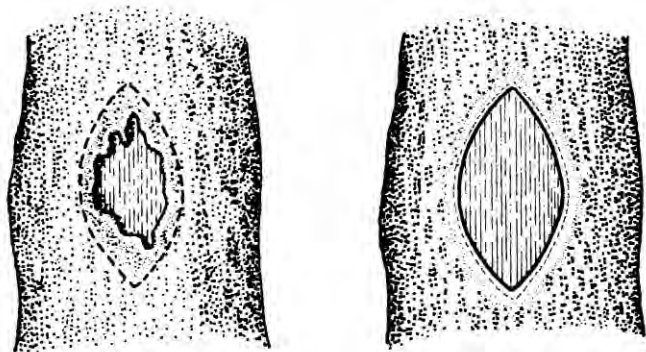


Figure 3. Shaping a rough wound (left) will result in faster and more even healing (right).

Lightning Damage

Lightning injured trees may not die immediately after being struck. Many times the tree will show no apparent damage for a year or two and then die. Just as frequently though, the tree will recover completely from being struck. Removing any splintered limbs and hoping for the best is all that can be done for such lightning struck trees.

Cabling and Bracing

Trees that have not been pruned correctly while young often have narrow "V" crotches (see Figure 4) which are subject to splitting as the tree ages. Often the shape of the tree would be destroyed if one of the limbs were removed; but, if nothing is done, the tree may split in a wind storm. The answer may be the use of cables to join the two limbs or the use of special all-thread bolts to reinforce the weakened crotch.

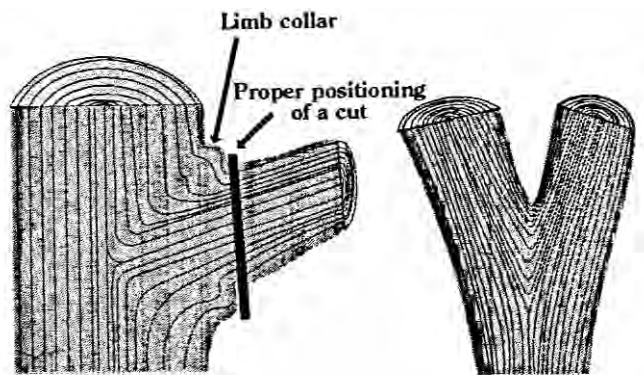


Figure 4. Wide limb spacing is important to the development of strong limbs. The left view represents a strong crotch and the right a weak crotch formation that will split as the tree grows. If the limb is to be removed, make the cut at the top of the limb collar. This results in a smaller wound that heals more quickly.

Cables are installed two-thirds of the way up from the crotch to the end of the limbs. Attach the cables to eye bolts that are large enough to go all the way through the limbs. Then attach the cable to one of the eye bolts and fasten with a cable clamp. The tree should then be drawn together with a block and tackle and the other end of the cable attached to the remaining eye bolt. When the block and tackle is removed, the cable should be taut but not so tight that the two limbs are held in an unnatural position. To be effective in preventing splitting of narrow crotches, the cables must remain tight (see Figure 5).

Bracing requires that a hole be drilled through the trunk of a tree at the top of the crotch. Into this hole a length of all-thread bolt is screwed to strengthen the

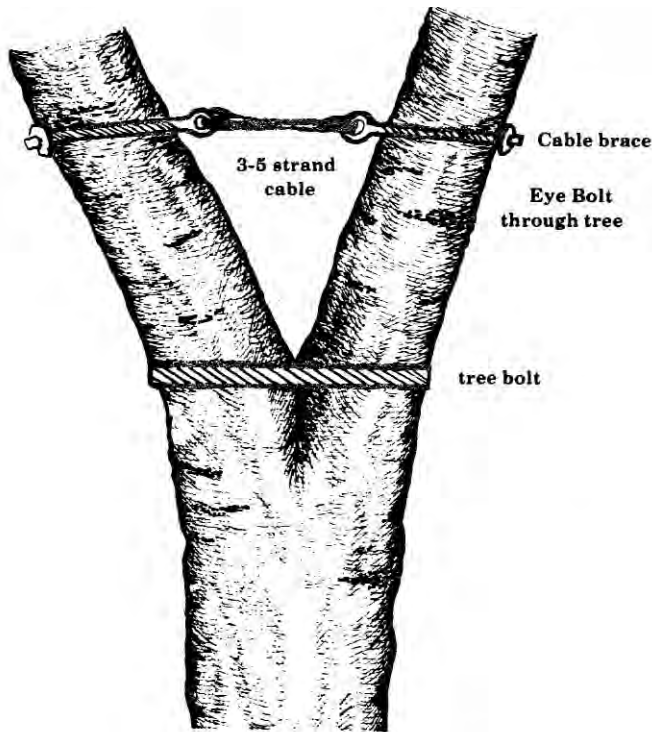


Figure 5. If a weak crotch must be strengthened, it is possible to do so by using either a tree bolt or a cable brace. Both methods are not required for one tree.

splitting crotch. If the tree is than 10 inches in diameter, two holes should be bored into the trunk. Notch the threaded bolt with a hack saw when the bolt is about one-half inch from the other side of the tree. Finish screwing the bolt in and then bend the bolt back and

forth so that it breaks at the notched point. This way the bolt will be below the bark surface on both sides and the tree will grow over the ends of the bolt.

Cabling and bracing are techniques that require some specialized equipment and skill. In most cases it is better to leave these jobs to the experienced arborist.

General Pruning Procedures

- Start pruning while plants are young. This maintains the plant in its natural form and eliminates the need for corrective pruning later in life.
- Know why the plant is being pruned and know how it should look when finished.
- Prune out any dead, broken, injured, diseased or insect infested branches.
- Remove any branches that distract from the ornamental appearance of the plant such as those branches that are growing through the plant or that are out of proportion with the plant.
- Never leave stubs when pruning shade or flowering trees. Cut back limbs to the the trunk or major limbs.
- Disinfect pruning equipment after each cut when removing diseased wood. Immerse the equipment in a 10 percent household bleach solution for disinfecting.

Table 2. Safety Rules When Pruning

- Call in a professional for large trees or for jobs you don't have the equipment for.
- Keep all equipment sharp and in good repair.
- Use equipment only for the job it was designed to do.
- Be conscious of electric lines when working with pruning equipment or ladders.
- Never climb in a tree without the aid of a safety rope.
- Wear tight fitting sleeves and cuffs when climbing in trees.
- Never rely on just a ladder when pruning in a tree – use a safety rope.
- Never, under any circumstances, climb in a wet or icy tree.
- When climbing a tree, spread your weight between several limbs.
- If a power line is touching a tree limb, call the power company fast. Stay clear of the tree.
- Keep your fingers clear when using hand clippers.
- Be extremely careful when removing brush to prevent eye injury.

Pruning Specific Plant Groups

Young Trees

By proper pruning at an early age it is often possible to avoid future maintenance problems such as narrow crotches or multiple leaders (main stems). Homeowners frequently are reluctant to make pruning cuts on a tree that is small because they would be removing some of the branches and the tree would be even smaller. All too often this pruning failure is lived with for many years to come. But actually, pruning may cause a young plant to grow faster and thus get larger sooner.

Base all pruning cuts on trees according to how the growth of the tree needs directing. If the tree has multiple leaders, remove all but the main trunk (see Figure 6). Make all cuts at the end of the limb collar. If several limbs are developing in an area and only one

is desired, remove those that have the poorest crotch angle or that will not add to the overall symmetry of the plant. Prune the tree to encourage the growth of the central leader. Leaving the lower limbs on a shade tree while it is young is usually desirable.

But remove these temporary limbs before they reach one inch in diameter so that the wound will heal quickly. The first limbs of most shade trees should be at 8 feet above the ground. If the trees are grown adjacent to streets, the lower limbs should not be allowed to develop below 12 feet. Young trees may be pruned at almost any season as required to develop the desired growing habit. As young trees grow, attempt to develop good limb spacing (see Figure 7). Never cut back a leader to thicken up a tree. This will usually result in the production of several shoots and narrow crotches which are more subject to breaking. Narrow crotches should never be allowed to develop in a tree, because as the two branches grow, they create pressure between the two expanding stems. This pressure builds to the point where the tree may be split completely open in a wind storm (see Figure 4).

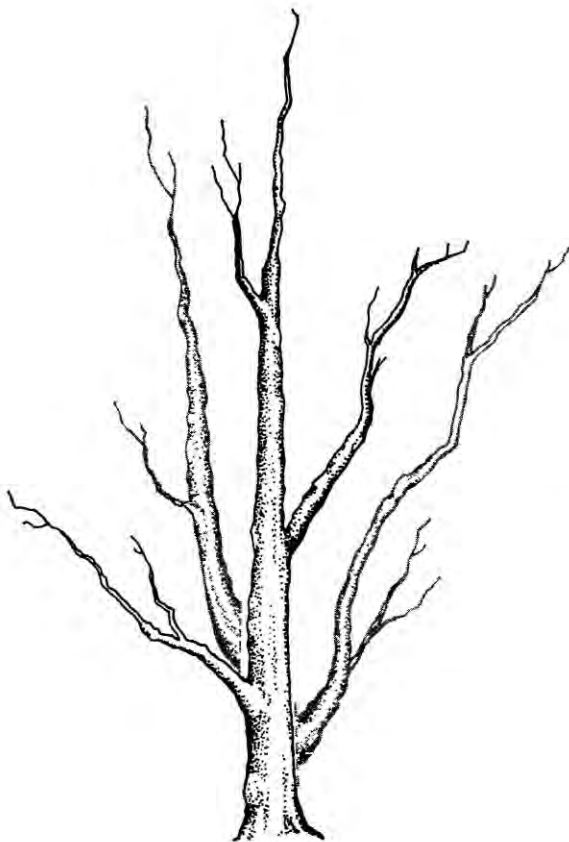


Figure 6. When young shade trees have multiple leaders, cut all but the main leader back to the trunk. This is a common problem on silver or soft maple.

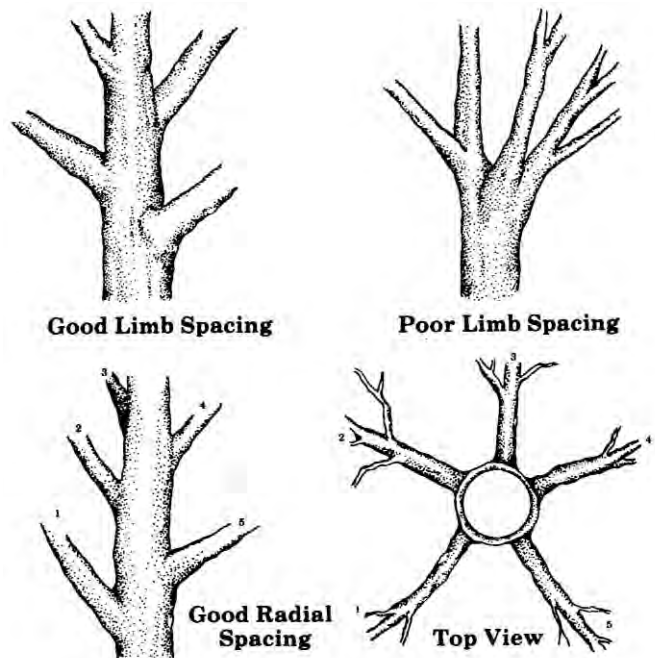


Figure 7. Well-spaced branches are important in the development of strong shade trees. The spacing should not only be up the main trunk but also have good radial spacing of limbs around the tree.

Pruning Established Trees

If a good job of pruning has been done on shade and flowering trees as they grow, usually there is little or no need for additional pruning. If older trees must be pruned, make sure that the person doing the pruning thoroughly understands what is to be accomplished by the pruning operation.

Always cut limbs back to the trunk or major limbs. Make pruning cuts at the end of the limb collar, thus reducing the size of the wound when the limb is removed. If large limbs are to be removed, follow the procedure outlined in Figure 8. First make a cut out from the trunk 1/4 to 1/2 way through the lower side of the limb. Next, cut from above and 2 to 3 inches farther out on the limb. Continue cutting until the limb falls free. Next, cut the resulting stub back to the top of the limb collar. Using this procedure lessens the likelihood of peeled bark due to the full weight of a falling limb.

If the plant is interfering with a building or utility line, pruning the plant away from the area by cutting back the limb to the point where the interfering limb originates from a major limb may be possible. Using this approach results in less damage to the balance of the tree but still provides the necessary clearance.

If utility lines go directly through the crown of a tree, insist that the tree be pruned so that there is a tunnel opened in the tree canopy for the wires.

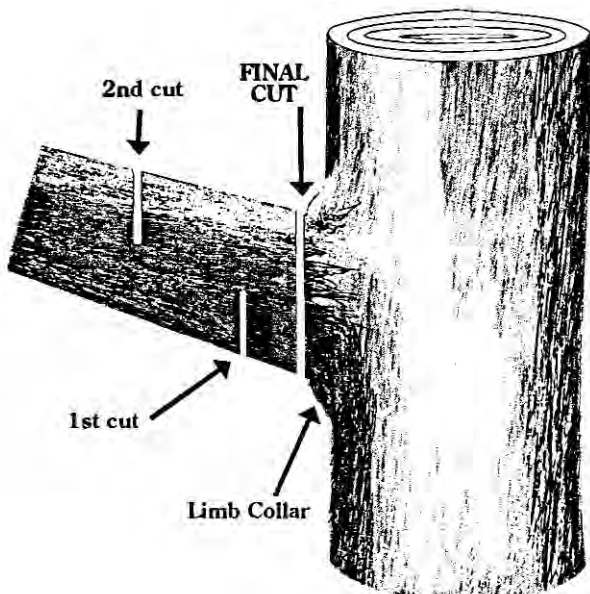


Figure 8. When removing large limbs, make the three cuts shown above to prevent stripping of the bark.

Never attempt to do tree pruning work around utility lines yourself. Call in the utility company or a competent pruning firm for the work.

Frequently, trees growing beneath utility lines are “dehorned” or headed back to stubs. After the “pruning” job, the tree produces rank growth which is quickly up in the lines again, and again must be removed. This type of annual mutilation will be necessary until the tree dies of disease due to all of the cut surfaces or until the tree is removed. The mutilated tree adds nothing in the way of beauty to the landscape, and removal is frequently the best answer if the tree cannot be trained around the lines.

Frequently, people want to prune freestanding trees in the same way. Their reasoning may be that the tree is too close to the house and may fall on it, that the tree is too big or that they think the plant needs pruning and that this is the correct procedure to follow. Whatever the reason for pruning, this type of pruning should never be used. If the tree is cut back, the remaining stub will produce from 6 to 15 sucker shoots which will all be competing for the space, light and available food supply. Because of this competition, all the new shoots will be weakened and suffer. Instead of having one strong stem, you will have several weak ones that are more likely to break during a windstorm. If the tree is thought to be too large, remove it completely and replace it with a species that will not get as large. By selectively cutting back limbs to shorter side branches, it is possible to reduce the size of an overgrown tree, but the amount of reduction is only slight.

Deciduous Shrubs

Deciduous shrubs, those that lose their foliage each year, are primarily grown for bloom or for fruit display. These plants are of two types: those that bloom on one-year-old wood and those that bloom on current season’s growth.

Forsythia, weigela, beauty bush and other spring blooming shrubs bloom on one-year-old wood (see Table 1). Because the flower buds are produced the season before the plant flowers, the plant should not be pruned before it flowers. Immediately after blooming is the best time to prune most shrubs of this type.

Crapemyrtle, glossy abelia and hybrid tea roses bloom on current season growth. These shrubs

usually are best pruned in the spring just before they begin to grow. Viburnums, beautyberry and pyracantha are grown primarily for their fruit display and may be pruned before or after flowering. These shrubs bloom on one-year-old wood, and pruning at any time will remove some of the flowers or the developing fruits.

The growth of deciduous shrubs should be directed by pruning from the time of planting and not delayed until the plant is overgrown. Correct pruning practices involve three basic types of pruning: thinning out, heading back and rejuvenation pruning.

Thinning out or renewal pruning involves the removal of old canes or shoots back to the ground (see Figure 9). Usually, remove no more than one-third of the shoots at any one time. Leave the youngest and most active growing shoots.

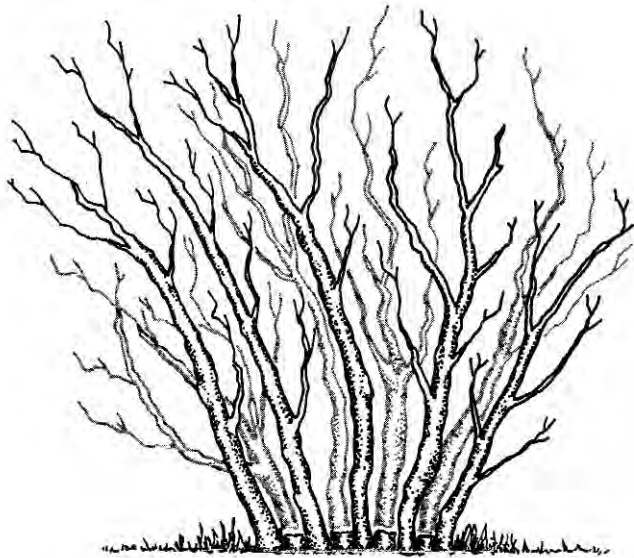


Figure 9. Renewal pruning is the proper procedure to use when restoring vigor to an old deciduous shrub. Remove the oldest canes to the ground, leaving the most vigorous stems.

Heading back enables one to control or direct the growth of a plant but still not destroy its natural form. Cut shoots back to a lower branch or cut back to a strong bud. Many of these shrubs are fast growing, and additional pruning on the new growth during the growing season may be necessary. This usually has no effect on the bloom display and enables you to maintain the plant at a more manageable size.

When heading a stem back (Figure 10), it is important to avoid leaving an excessively long stub or cutting too close to the bud. If the cut is made too far from the bud, a dead stub will be left. If cut too close to

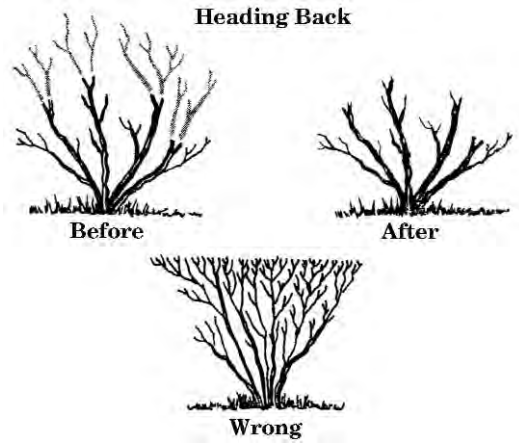


Figure 10. If height control is desired on a shrub, heading back is the proper procedure. Shearing destroys the natural form of the plant and results in an open base with all of the foliage and flowers concentrated in a small portion of the top.

the bud, the stem may dry out and the bud be killed. Make cuts about 1/4 inch above the bud.

Frequently you will have to prune a shrub that has never been pruned and has completely overgrown the site. It may be possible to prune such a shrub by thinning and heading back as described above. Usually the thinning and heading back operation will go on for a 2- to 3-year period with a portion of the oldest wood taken out each season.

If a more immediate effect is desired, rejuvenation pruning should be used (Figure 11). Rejuvenation pruning involves cutting the plant back to or near the ground line. A new top will grow rapidly from the roots. Many more shoots will grow from the crown of the plant than there will be room to develop. These shoots should be thinned out leaving only the strongest to grow. Depending on the species and the size of the old plant, as many as 75 to 90 percent of the new shoots should be removed.

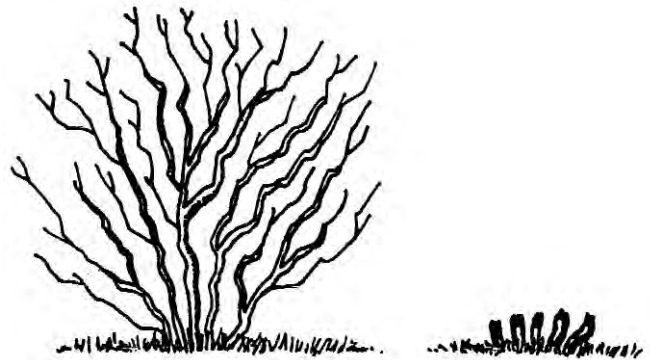


Figure 11. Rejuvenation pruning involves the complete cutting back of the top of the plant to the ground. Thin the new shoots as they begin to grow to prevent excessive crowding.

As the new plant grows, it is important that it be pruned to develop the desired size and form. The plant may require pruning several times during the growing season the first year after rejuvenation pruning to control its size and form. If the new shoots are not thinned out and the growth of the remaining shoots controlled, the plant will quickly be back in the shape it was before pruning.

Deciduous flowering shrubs should not be pruned by clipping with hedge shears. The beauty of these plants is in their form and flowers. If the plant is continually sheared, the flowers will only be on the outer surface and the total landscape display will suffer. When attempting to restore the natural form to a shrub that has been pruned with hedge shears, rejuvenation pruning may be necessary. If the plant is too large and unruly for the site, removing it completely and replacing it with a shrub of more acceptable size may be more practical.

Crapemyrtles are a popular summer blooming deciduous shrub or small tree extensively grown in Arkansas. They are available in dwarf forms usually not exceeding 3 feet if proper pruning is used, large shrub form usually 8 to 12 feet in height and in tree form often 25 feet or more high.

The dwarf forms may become too large for a landscape site if not pruned each season. The correct pruning procedure for these plants is to cut them back to within 6 inches of the ground each spring just before new growth begins. Any small diameter stems should be taken out completely to the ground. When new growth begins, it may be necessary to thin some of the shoots to prevent excessive crowding.

The larger shrub forms are usually grown with multiple stems and usually are pruned back each spring to maintain size. If the size of the shrub is not a serious consideration, the plants usually do not require annual pruning for flower production.

The tree crapemyrtles should be grown as small trees with multiple trunks. Usually three to five trunks are left, and these are kept free of branches to display the character of the trunk. Most of the foliage is on the upper third of the tree. The practice of cutting the tree crapemyrtles back each spring does result in larger bloom clusters; however, the natural appearance of the plant is destroyed. The tree will continue to bloom if it is not cut back each year, but thinning may be required every 3 to 5 years to encourage new growth and flowering.

Upright Conifers

(Needle Evergreens). Most of the plants in this group become large plants at maturity, many reaching heights of over 50 feet. Because of their large size, they should be planted where there is no need for controlling their height. Plants such as the spruces, pines and true cedars usually should never be pruned. Any pruning that is done should be done while the plant is young to direct its growth and increase fullness. These plants should never be cut back beyond the green foliage. If this is done, new growth will not be produced and the form of the plant will be destroyed.

It is possible to thicken up plants such as pine and spruce by pinching back the candle of the plant when it first begins to grow in the spring. **The candle is the new growth with the small needles just beginning to develop.** When the terminal of the candle is removed, new branches will develop and fullness will be restored. The central terminal should never be removed because the plant may never develop a new leader. If some size reduction is desired on the sides of a plant, cut the branches back to a fork, removing last season's growth.

Junipers and arborvitae are plants of this group that can be maintained in smaller sizes if they are pruned some each year. They are usually pruned with hedge shears and kept in symmetrical forms. If the plant has become overgrown and if it must be cut back beyond green foliage, remove it and plant another one to replace it (see Figure 12). If the terminal of a pine, spruce or true cedar has been broken out, it is necessary to aid the plant in growing another terminal. If no help is given, the tree usually will not develop a new growing point and the landscape effect of the plant will be lost. To do this, bend one of the youngest branches into an upright position and secure it by means of a stake. After a season or two, this branch will begin to grow and develop normal branches for the species. When this occurs, the stake may be removed and the plant will resume its normal growth habits.

Spreading Conifers

The spreading junipers are the most important plants in this group. These plants must be pruned some each year to maintain their size because once they are overgrown they cannot be cut back beyond the green foliage. If a branch is cut back beyond the green foliage, it will not produce new growth.



Prune pines in late spring by removing one-half of the candle, or new shoot. Do not damage needle tips because the tips of cut needles tend to turn brown.



Keep side branches from growing out of bounds by removing the terminal bud. This not only slows outward growth but also helps to make the plants more bushy.



If the tree develops two leaders, remove the less desirable one in early spring. Trees with more than one leader are weaker and less attractive than trees that have a single, strong, central leader.



You can replace a lost leader by tying one of the branches in the top whorl to a vertical brace.

Figure 12. Above are some of the special considerations to keep in mind when pruning conifers such as pine, spruce or true cedars.

These plants should not be pruned with hedge shears except where formal hedges are desired. The best pruning tool for junipers is a pair of loppers with which you may selectively remove long limbs (see Figure 13). This type of pruning maintains the plant in its natural form yet controls the size of the plant.

Cut the upper branches on spreading junipers back more than the side branches to prevent shading (see Figure 14). Cut the new side branches back from 1/4 to 3/4 of their length. Make all cuts in such a way that a growing point is left to grow and quickly cover the cut area. Vary the length of branches cut off to give the plant a more natural appearance.

Yews (*Taxus*) – Yews are a group of needle evergreens which may be pruned in a different fashion. These plants should be pruned each year to prevent them from becoming overgrown; however, if they do get too large, they may be cut back severely and still survive. If severe pruning is necessary, delay it until just before new growth starts in the spring. The Japanese yew (*Podocarpus*) may be pruned in the same way.

Broadleaf Evergreens

If the correct broadleaf plant is selected at planting, excessive amounts of pruning are usually not necessary. Frequently the wrong plant is selected or the plant becomes too large for the site and must be pruned back. All broadleaf plants such as hollies, pyracantha, azaleas, and euonymus may be cut back severely and will quickly recover. It is possible to cut them back to just the major trunk; however, they should not be cut completely to the ground if regrowth is desired.

Hollies, pittosporum, euonymus, aucuba and other evergreens not grown specifically for their flowers should be pruned in the early spring just before new growth begins. Pruning at this time will enable the plant to quickly produce new growth and hide the effects of pruning. Additional pruning should be done during the growing season to control rampant growth.

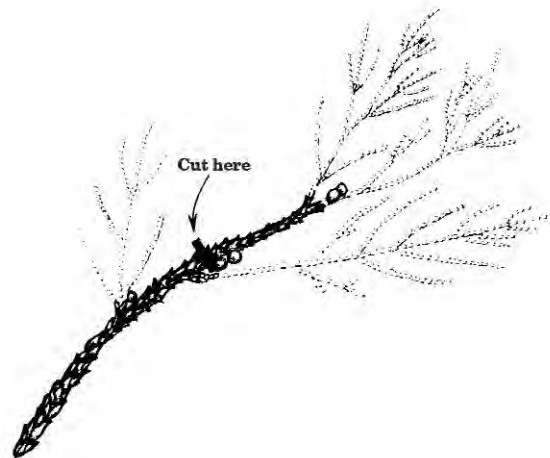


Figure 13. When cutting back a spreading juniper, always cut back to another shoot. This will control the size of the plant without destroying its natural form. Never use hedge shears on a spreading juniper unless it is being grown as a hedge.

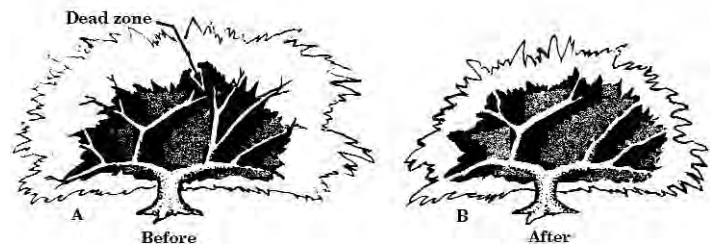


Figure 14. Figure A above shows the spreading juniper before pruning and indicates the dead zone in the center of the shrub. By pruning the shoots back, it is possible to control the size and still leave the plant in its natural form. Note that the top is pruned back more severely so that the lower portion will not be shaded.

Another way to prune a large plant that has completely overgrown a site is to cut the lower branches off and make a small tree out of it (see Figure 15). This treatment works well with photinia, Burford holly, cherry laurel and other large evergreen shrubs. This treatment may look out of place in many locations, and the effect on the appearance of the overall landscape should be seriously considered.

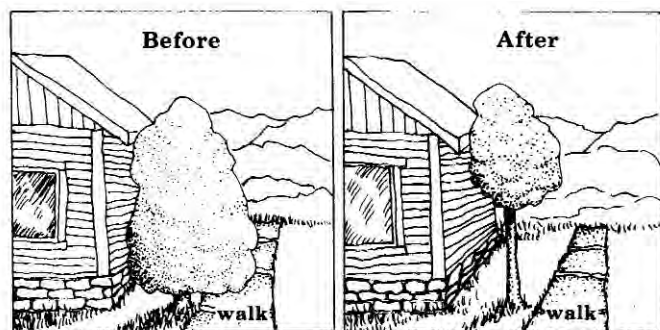


Figure 15. If a large shrub is extremely overgrown for the site, it may be possible to prune it into the form of a small tree, thus avoiding the necessity of severe pruning or removal.

Nandina – Plants such as nandina, Oregon grape holly and the leather-leaf mahonia produce numerous canes. If the plant has not been pruned for several years, it may become open at the base and have all of its foliage on top. To restore fullness to the plant, it is possible to prune them to the ground and grow a new shoot system. If removal of the entire top of the plant is not practical, remove individual canes back to the ground. By removing a portion of the old canes each year, it is possible during a 3-year period to remove all of the old canes and restore foliage to the entire plant. The plant should then be pruned each year to keep the oldest canes removed and prevent the same condition from developing again.

Azaleas – Azaleas are spring blooming plants that initiate their blooms the season before they flower. Pruning should be done each year to encourage fullness and to keep the plant from becoming overgrown. The plant should be sheared after it flowers in the spring. Shearing later than July 15 may cut off next year's flower crop. Extremely overgrown plants may be cut back severely. If the plant is not to be pruned, removing the developing seed pods to encourage more vegetative growth may be advantageous.

Pyracantha – There is no good time to prune the pyracantha or firethorn. This plant blooms in the

spring from flowers produced the fall before. If the plant is pruned in the winter or spring before blooming, the flowers will be removed. If pruned after blooming, the developing fruit will be removed. The best way to prune these plants is to prune them some each year and keep them from becoming overgrown. By selectively pruning out some of the branches, it is possible to control size without having too much effect on the number of berries produced. If the plant has become completely overgrown, it may be cut back severely and still survive. If this is done, one or perhaps two berry crops may be lost.

The light yearly pruning may be done either before or after blooming in the spring. After blooming is probably the best time because the effect of pruning is quickly covered up by new growth.

Hedges

Evergreen or deciduous hedges require more pruning than all other types of plants. To have a desirably shaped hedge, the plants must be pruned from the time they are first planted. This eliminates any holes and insures that the plants will have good foliage development all the way to the ground. As a general rule, all hedges should be pruned so that the base is wider than the top (see Figure 16). This insures that the base of the hedge will receive adequate light for good development.

When planting hedges, you can avoid future problems by planting the plants close together. Too much space between plants encourages traffic through the hedge and delays the coverage. Most hedge plants should be planted 2 to 3 feet apart in the row. A better method is to plant a double row and stagger the plants in each row. This will require more plants but will give a denser hedge which will fill in more quickly. After hedge plants such as forsythia or privet are planted, they should be cut back to half their

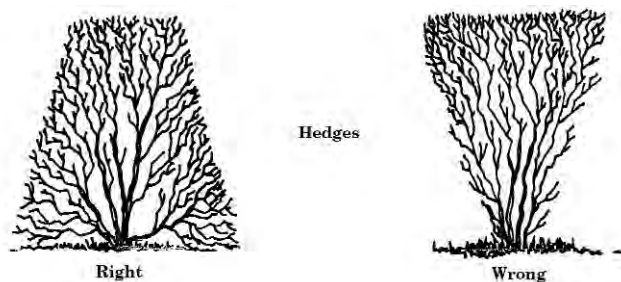


Figure 16. Hedges should be pruned so that they are wider at the base than they are at the top.

height. Several times during the first growing season half of the new growth should be cut back to encourage low dense branching. Established hedges may require pruning several times during the growing season to control their growth.

Spring blooming hedges such as forsythia or spirea should be pruned after they bloom in the spring. Additional pruning may be required until late summer to control rampant growth. After late July or early August the plants should not be pruned so that next year's blooms are not cut off.

Privet, juniper and holly hedges may be pruned at any season as required to control growth. If heavy pruning is required, delay it until just before growth begins in the spring.

If the hedge is completely overgrown, rejuvenation pruning may be required to control its size and restore its original appearance. In this procedure, the hedge is cut back to within 6 inches of the ground. Pruning this severely should be delayed until just before growth starts in the spring. Winged euonymus and some viburnums should not be cut back completely to the ground. If these are overgrown and require severe pruning, plan to cut them back in stages over a 2- or 3-year period.

Frequently it will be necessary to lower the total height of a hedge, but it is not desirable to cut it completely to the ground. In this case, the plants should be cut back at least 12 inches below the desired height of the hedge. Then the new growth should be pruned periodically as it grows to increase branching and insure fullness in the new top.

Roses

Yearly rose pruning is required to maintain the size and vigor of most rose bushes. They should be pruned before the plants begin to grow but after the most severe winter weather is over. Early to mid-February is a good time to do this work. Leather gloves and a pair of sharp shears are all that are needed.

To prune bush roses (hybrid teas, floribunda, multifloras), remove all dead and diseased stems. Make all cuts 1/4 inch above a strong outward facing bud (see Figure 17). Next, remove all weak wood that is smaller than a pencil in diameter and all canes that are growing to the center of the bush. Finally, shape the plant by cutting the remaining canes back to a

uniform height, usually 24 to 30 inches for strong plants. Most plants have four to eight strong canes after pruning. If fewer more spectacular blossoms are desired, the plants may be cut back to 16 inches.

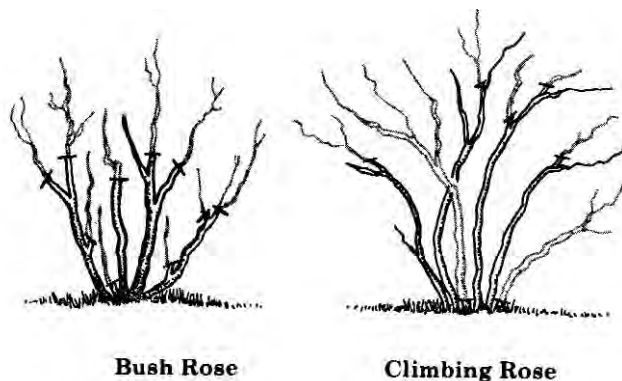


Figure 17. Pruning bush roses and climbing roses.

Everblooming climbers usually do not require annual pruning. Pruning should be performed to invigorate older plants and to remove weak canes (see Figure 17). Pruning should be limited to that required to keep the plant in bounds and to remove the old canes as they cease active growth and flowering. They should be pruned in the spring before growth begins.

The older climbing roses that produce only one flush of blooms should not be pruned until after they have bloomed. The oldest canes should then be removed to stimulate new vigorous growth which will produce next year's blooms. They may require some corrective pruning during the growing season to keep the plant in bounds.

The species roses or shrub roses are usually so vigorous that pruning is needed periodically to thin out crowded stems and make way for new growth. These plants should be pruned after they have bloomed.

Vines

Homeowners are frequently concerned that a vine growing on a tree will kill it. There is no danger of this happening as the vine uses the tree only for physical support. About the only exception to this statement is the kudzu vine which is so fast growing that it just overruns the tree and the tree, unable to get sunlight, dies. Vines that are not pruned overpower other shrubs, become unsightly with age, collect trash and can do damage to structures. They

usually are trained to a trellis, arbor, wall or to a patio framework for summer shade.

The pruning of vining plants is usually limited to just that necessary to keep it in bounds. The spring blooming plants such as wisteria and Japanese honeysuckle should be pruned after they have bloomed in the spring. Honeysuckle may be cut back as severely as needed to keep it in bounds. Wisteria blooms on year-old wood. To promote blooms next season, the vines should be cut back from 1/3 to 1/2 of the way. This will promote branch shoots on the old stem which will bear next season's blooms. This pruning should be performed before mid-summer.

Summer blooming vines such as the Jackmani clematis and trumpet creeper bloom on new growth and should be pruned in the spring before new growth starts. They should be cut back from 1/2 to 2/3 if they are overgrowing the setting. Clematis may require some thinning to remove dead wood.

Vining plants such as English ivy or Boston ivy that climb readily on walls should be kept at the desired size by pruning as required. If the plants are to be removed from a wall, the hold-fasts (the modified roots that enable the plant to climb) will remain on the wall. These are extremely difficult to remove. For this reason, it is important to decide where the ivy will be allowed to grow and keep it in just that area.

Ground Covers

Ground cover pruning is usually only required to remove old unsightly growth and to give the bed a uniform appearance. Additional pruning may be required on some vining ground covers such as English ivy and Japanese honeysuckle to keep them from climbing or overpowering other shrubs.

Ground covers such as English ivy, *Vinca minor* (periwinkle), pachysandra, Japanese honeysuckle, wintercreeper euonymus, crownvetch and monkey grass may be mowed or sheared 4 to 6 inches high in the early spring just before new growth begins. The debris should be removed from the bed. This procedure is beneficial every two or three years to keep the bed in peak appearance. Pruning back of *Vinca minor* should be delayed until after it has finished blooming in the spring.

The spreading junipers should not be mowed as described above. If any pruning is necessary, it should

be limited to hand shearing to keep the plant compact and in bounds. Santolina or the lavender cotton may be pruned by shearing back to 6 to 8 inches in early spring just before new growth begins. This plant should be sheared each season to keep it full.

Espaliers

(es•pal'yer) – This is a French word taken from the Latin word "spatula." Espalier pruning was developed in European formal gardens for the formal effect that could be achieved. It also enabled the use of trees and large shrubs in small areas by training them to a flat surface. Espalier plantings are currently *en vogue* in Arkansas, but you must realize that to maintain a plant in these artificial forms requires dedicated effort and considerable attention during the growing season.

Many plants may be used for espalier purposes, the most popular of which are pyracantha, cotoneaster, crabapples, peaches, apples, pears, glossy abelia, leatherleaf viburnum, southern magnolia, podocarpus and climbing roses. Almost any plant can be trained as an espalier plant if one has the patience to develop it.

When planting an espalier, one should decide on what form the plant is to be grown in. Figure 18 illustrates some of the more popular formal and informal espalier styles. It is important to decide from the outset how the plant will be trained so that appropriate support can be provided. If the plant is to be supported on a brick or stone wall, concrete nails work well. These should be positioned as soon as the plant is planted to serve as guides for directing the new growth. Usually nails are only required at bends and periodically up the wall to support the plant.

Attaching espalier plants to nails or wire supports presents some problems in itself. The ideal attachment should be permanent, not cause injury to the plant and expand as the plant stem grows. One of the best means of attaching the plant is a flexible plastic material used for tying plants. Wire ties may be used but they should have a loop that is loose enough to allow for the expansion growth of the stem. Nylon twine may be used, but expansion room must be allowed. Cotton string is not satisfactory because it decays too rapidly.

When selecting a plant for espalier purposes, choose the smallest plants available and direct the

growth by pruning as required. If a pyracantha is selected and it is to be pruned in the goblet style, select a one-year-old plant with a single leader. The leader should be topped at 30 to 36 inches. When the plant is topped, several side shoots will develop. Only six side shoots should be allowed to develop: two at the top of the plant, two a third of the way down the stem and two 2/3 of the way down the stem. The upper two shoots would then be bent upright when they have grown approximately 1 foot from the central stem. The middle set of shoots would be forced to grow horizontally 4 feet from the main stem, then they would be allowed to grow upright. When they reach the desired height, these stems would be pinched and two stems allowed to develop like the central fork. The lowest set of shoots would be forced to grow horizontally for 2 feet and then trained upright. As the desired shoots grow, all unwanted shoots must be kept pruned off. The pruning and training procedure may take several years to complete.

Once the espalier plant has developed the desired form, the side shoots must be headed back several times a season to prevent overgrowth. Short flowering stubs should develop along the stems of most espaliered plants. These should be left for flower and fruit development.

With time it may become necessary to cut out a portion of, or all of, an established espalier due to old age or insect problems. If this is necessary, the plant can usually be cut back to the major stem and new side shoots selected. These may be extremely vigorous; therefore, some root pruning at this time may save a great deal of pruning work.

Another option for espalier display is to develop a wire framework in the desired espalier design and then train English ivy to it. The ivy grows quickly and will cover most framework supports in two growing seasons. Once the plant has achieved the desired size the new shoots must be kept cut back. Attach the plant to the wire framework by either twisting the ivy around the wire or by using plant ties.

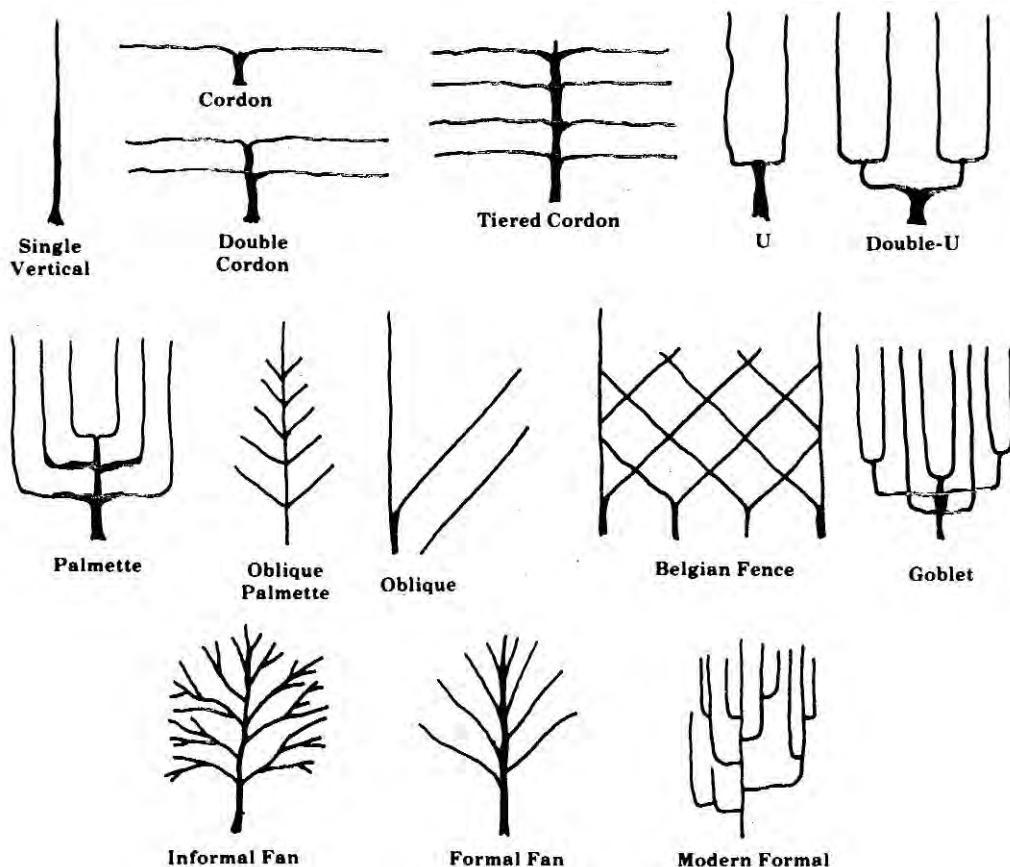


Figure 18. Some formal and informal espalier patterns.

Espalier plantings are a useful addition to many landscapes, but they do not fit in all situations. If espaliers are planted, decide at an early stage what form is to be developed and stay with the pruning and training procedures. If one wishes to train an older plant to the espalier form, it is usually only practical to attempt an informal pruning system of your own design.

Topiary Plants

Topiary is another pruning form which originated in European formal gardens. This type of pruning involves the training of a plant in some geometrical form or in the form of a whimsical animal. This pruning form requires the manipulation of the plant from an early age and the constant shearing of the plant to achieve the desired form. These very formal plants do not fit into all landscape situations. If they are used they must be used sparingly, usually as a specimen plant. The “poodled” or “pom-pom” junipers or yaupon hollies are examples of this pruning style that are currently enjoying popularity.

Plants that are useful for topiary work include boxwood, Japanese holly, yaupon holly, junipers, arborvitae, yews, podocarpus, and even azaleas. To be effective, the plants must be pruned to achieve the desired scale and form and then must be constantly maintained in this size.

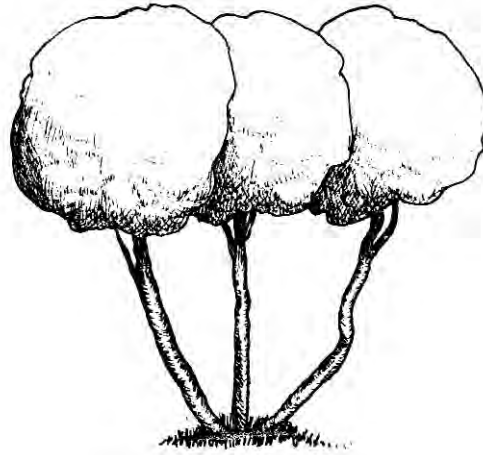


Figure 19. Poodled or pom-pom junipers are popular styles of topiary pruning.

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