

Proper Pruning Techniques

Kentucky GROW



The goals of this module are:

To learn how to prune woody plants properly.

What you need:

- Handheld pruning shears, preferably scissor or bypass types instead of anvil types
- Lopping shears, or loppers, preferably scissor or bypass types
- Hedge shears
- Hand or pruning saw
- Rake and/or tarp to collect prunings
- Sharpening stone
- Light oil for oiling blades (baby oil is fine)
- Linseed oil for oiling wooden handles
- Alcohol for sterilizing tool blades
- Gloves

Time needed:

Pruning is a topic that can fit into whatever time is available. Pruning a rose can take a few minutes, and pruning a large overgrown shrub can take a few hours. One shrub can be pruned by several people at once, or the task can be completed over a week or so.

How to prepare:

Most people are timid about pruning, so a good idea might be to start them off easy with a shrub that can take a lot of pruning and will bounce back from attention by amateurs. Spirea, forsythia, yew, quince, holly, euonymus, or boxwoods are good candidates. Roses in containers make excellent teaching materials for locations with limited availability of overgrown shrubs or for participants with restricted mobility. Have on hand many different kinds of tools so participants can try out as many as possible. This might be an excellent opportunity to also demonstrate the sharpening and care of pruning tools.

More so than with any other module, safety is of utmost concern, as injury is possible when working with sharp pruning tools. Have a first-aid kit handy and do not tolerate goofing around. Although it is tempting, do not demonstrate power trimmers or chain saws. Power trimmers and chain saws involve extra safety equipment, a possibility of head injuries from falling branches, and a risk of tangling with electrical lines. There is plenty of material to demonstrate without having to use these tools.

The program:

Pruning, along with watering and fertilizing, helps maintain the health and vigor of landscape plants. Pruning can prevent storm damage, reduce the spread of disease, and increase flowering. Pruning allows us to reduce the size of a misplaced plant or to form it into humorous shapes or to expose beautiful bark. It is a skill that every gardener needs to master.

Tools

Probably the most useful tool for pruning is hand-held pruners, also called pruning shears. If possible, choose the bypass or scissor type, as they give a cleaner cut than the anvil type. A good pair can cut stems up to half an inch and has replaceable blades. Buy the best that you can afford, as this tool tends to get constant use in the garden pruning, deadheading, cutting string, etc.



Lopping shears, or loppers, are simply long-handled pruners. The longer length of the handles give extra leverage for stems up to about 1½ inches in diameter. Again, bypass construction makes for cleaner cuts.

Pruning saws are small saws with blades 8 inches long or less and are ideal for cutting branches up to 3 or 4 inches in diameter. Pruning saws with narrow, curved blades can cut crowded stems or branches with narrow angles of attachment, and some models fold into themselves for safety.



Hedge shears are useful for maintaining formally grown shrubs and topiaries. They are also useful in the perennial garden for deadheading bushy plants with many small flowers.

Pruning Cuts

Thinning is cutting off a shrub or tree branch where it joins the parent branch. Thinning reduces the size of a shrub or tree without stimulating additional growth, resulting in a healthier and stronger plant.

Shearing or heading removes short lengths of top growth, sometimes leaving a stub. A flush of new growth directly behind the cut ensues, resulting in a dense canopy of exterior foliage with no foliage inside. Once sheared, shrubs must be sheared several times a season to look their best. Shrubs that do well with shearing include boxwoods and yews, but this technique is best left for topiary and formal gardens.

How to Make a Proper Cut

A proper cut promotes healing and reduces the chance of disease-causing organisms getting a foothold.

Always cut back to a healthy bud or intersecting branch. Choose a bud that is pointing in the direction you want the growth to go, and then take the cut just beyond the bud, slanting away from the bud so water does not collect in the bud.



If cut too high above or too close to the bud, the remaining stump will die.



Branches larger than 1½ inches should be cut in three stages to eliminate tearing of the bark from heavy branches. First make an undercut on the bottom of the branch about a foot out from the trunk.



Saw only about a third of the way through.



About 3 inches farther out from that cut, cut and remove the whole branch. Now trim up that stump by sawing just outside the branch collar. Do not cut flush with the trunk or paint the wound.



When using pruners or loppers, position the tool when cutting so that the thin blade is against the remaining wood. The cut is much cleaner, resulting in a faster-healing wound. Wound paints and sealant are unnecessary and may actually delay healing.

When to Prune

The best time to prune is before new growth starts, usually in January and February in Kentucky. Pruning in the early spring stresses plants that have just spent all their stored energy on putting out new growth. Pruning in the fall robs the roots of food stored in the leaves and stimulates the shrub or tree to put out soft, new growth which may burn in the coming cold weather.

Damaged or diseased branches may be removed anytime.

The general rule for flowering shrubs and trees is to prune spring bloomers soon after flowering but before most of the leaves have expanded. Pruning any later will remove next year's blooms. Summer-flowering shrubs should be pruned in the winter (see the table below).

Shrubs/Trees to prune in the spring	Shrubs to prune in the winter
Serviceberry	Aralia
Barberry	Butterfly bush
Redbud	Beauty bush
Dogwood	Clematis
Forsythia	Hibiscus
Crabapple	Oakleaf and P.J. Hydrangeas
Rhododendron and azaleas	Hybrid tea rose
Spirea	Bluebeard
Lilac	
Most viburnums	
Magnolia	

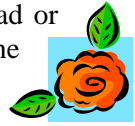
Specialty Pruning

The guidelines given in this module are general and encompass most plants. However, if you are uncertain how to go about pruning a particular plant, consult one of the sources listed below for species-specific pruning.

Most **evergreens** with needles can be pruned anytime except for late summer. Prune pines in late spring when the candles, or this year's growth, are two to three inches long. Pinch back the candles at the end of each branch to control growth. With conifers, cut back extra leaders at planting time, but do not prune until two years after planting. Pine, spruce, and fir evergreens do not re-sprout on old wood, so only this year's growth should be cut back. Prune yews and junipers in late spring and again after the second flush of growth in midsummer. Broadleaf evergreen shrubs such as rhododendrons and azaleas should be thinned soon after flowering. To promote more flowering, the new growth on these evergreens can be pinched back about an inch when the new growth is about 4" long and the leaves are still immature.



Roses need pruning to keep healthy and to flower their best. In spring, after winter protection has been removed but before the rose leaves out, is the best time to prune. Cut back all dead or weak canes, canes growing inward, and canes crossing others. On older roses, cut out one or two of the oldest canes each year. Cut at a 45 degree angle about a quarter-inch above a healthy, outward-facing bud. Cut the canes to the desired height.



Wisterias are notorious for not blooming and for overgrowth. Proper pruning can help in both cases. In midsummer, cut back the young, thin shoots to within five to seven leaves from the main branch. In winter, cut these back further to two buds from the base of the previous year's growth.

Most pruning books divide **clematis** into three groups, each with its own pruning regimen. Most residential clematis is of the large-flowered, jackmanii type (Group 2) and can be cut back right after flowering if needed. In the late winter, remove any dead or damaged stems and cut back to where strong buds are visible. Sweet autumn clematis is a vigorous fall bloomer and can be cut right to the ground after the foliage has frozen back.



If purchased balled-and-burlapped from a nursery, **newly planted trees** will need little or no pruning at planting time. Prune off any broken branches or roots as needed. Container-grown plants also need little, if any, pruning of their branches at planting time. If the roots have become pot-bound, make three to four vertical slits in the root ball or tease the roots outward.

At one time, newly transplanted trees were pruned by one-third to one-half at planting time to compensate for the loss of roots and the stress of transplantation. Research has shown that this practice actually stunts the growth of the tree and slows recovery. Trim lightly, if at all, at planting time to remove broken branches, to train a central leader, or to help develop a good branching structure.

Accommodations for this program:

As with all Kentucky GROW programs, providing needed accommodations is an individualized process. Below are some ideas to get you started, but the best route to take is to listen to the person, as he or she will usually have the best ideas of all!



Ensure that all pruning materials are placed at an accessible height and reach. Consider a bag or knapsack to carry tools for a person using a wheelchair, walker or cane. Adaptive gardening tools can be beneficial to help increase reach and efficiency for gardeners. See examples of Kentucky GROW tools to see how to get increased reach, efficiency, and endurance when pruning and to learn how to safely perform pruning activities. For outdoor pruning duties, ensure that all pathways are accessible and unobstructed.



For those who have cognitive impairments, consider working as a team for this module. Use photos or pictures to demonstrate proper pruning techniques. Use pruning tools that match abilities of the gardener and improve his or her overall efficiency.



For those with learning disabilities, provide the information in a variety of methods. Some individuals learn best by hearing the instructions, others will prefer to see the step by step procedure in writing with pictures or photos, hear the instructions on tape, or see the techniques demonstrated prior to attempting. Written instructions will also be helpful for those with hearing impairments.



For individuals with visual impairments, review placement of the pruning tools. Use tools with brightly colored handles to help someone avoid picking up the tool by the blade or cutting edges. Don't move items without informing the person. Ensure that the area is well lit. A magnifying glass can make materials easier to see. Provide any written instructions in large print and other alternative formats as requested. Consider working as a team for this module.

Where to go from here:

“Pruning Landscape Trees”, University of Kentucky College of Agriculture Cooperative Extension Service Publication HO-45.

“Pruning Landscape Shrubs”, University of Kentucky College of Agriculture Cooperative Extension Service Publication HO-59.

“Disease and Insect Control Programs for Home Grown Fruit in Kentucky including Organic Alternatives”, University of Kentucky College of Agriculture Cooperative Extension Service Publication, ID-21.

All About Pruning, Susan A. Roth, editor, Ortho Books, 1989.

Pruning Techniques, Vol. 47, No.1, Brooklyn Botanic Garden, Spring 1991.

Pruning, a Practical Guide, Peter Mc Hoy, Abbeville Press Publishers, 1993.

“Pruning a Spring-Flowering Shrub,” Janet Sanchez, Step-by-Step Gardening Techniques Illustrated, Storey Communications, 1996.

“Rejuvenation Pruning for Deciduous Shrubs,” Mary Yee, The American Gardener, Jan./Feb. 2002, pgs. 38- 39.

“The Case of the Overgrown Conifer,” Lee Reich, Horticulture, March 2000, pgs. 76-78.

“Follow Proper Pruning Techniques,” Douglas Welsh and Everett Janne, find online at: <http://aggie-horticulture.tamu.edu/extension/pruning/pruning.html>

“Pruning Young Trees,” International Society of Arboriculture, find online at:
<http://www2.champaign.isa-arbor.com/consumer/young.html>

“Pruning Mature Trees,” International Society of Arboriculture, find online at:
<http://www2.champaign.isa-arbor.com/consumer/pruning.html>

“Ten Principles of Rose Pruning,” American Rose Society, find online at:
<http://www.ars.org/experts/martin.html>

This material is available in alternate formats. Contact Kentucky GROW for more information.