

Woody Landscape Plants: Management

► Learn how to successfully grow landscape plants, including planting, watering, fertilizing, and pruning.

Shrubs and trees add beauty to homes and landscapes if they are well placed and cared for. A good design is essential to any landscape, but even the best design is worthless if it isn't properly maintained. On the other hand, an ordinary design can look attractive if given a little extra care. The environmental conditions in Alabama allow us to grow a wide variety of ornamental plants. The many beautiful gardens and yards over the state prove this fact. Success in growing landscape plants depends on many things.

These include the following:

- Planting in fall and winter
- Site selection
- Preparing the soil
- Correct planting methods
- Fertilizing and pruning
- Controlling pests

Planting Trees and Shrubs

Successful landscaping involves learning how to plant your shrubbery and trees properly. Taking a little extra time to learn about planting procedures may save considerable time and money later. A good design, along with healthy plants reduces routine maintenance. To have this, you must plan ahead.

When to Plant

The ideal planting season begins in October and continues through January. Early fall planting is most desirable. Roots grow during the fall and winter months, enabling them to become established before warm weather and spring growth. Plant deciduous trees and shrubs (those that lose their leaves in the fall) after they become dormant (November to January).



Where to Plant

Carefully consider your planting sites. Pick a place that meets the light requirements for the plants you have chosen, or select different plants that are adapted to the area being planted. Remember to consider other environmental factors such as typical wind velocity, temperatures, soil characteristics, and amount of rainfall. Make sure the plants you choose will adapt to each of these conditions. Before purchasing plants, ask your local Extension agent or nursery manager about the growing requirements of the plants you plan to buy.

Preparing the Soil

Properly preparing the soil is the foundation of successful gardening. Beginners do not always realize how important this step is, and the ornamentals they plant often grow poorly. The only way to know what nutrients your soil might need and whether the soil pH needs correcting is to test the soil. Get information and supplies for soil testing at your local Extension office, from the Soil, Forage, and Water Testing Lab website or from the "Soil Testing Information Sheet" on the Alabama Extension website or call our toll-free Garden Helpline at (877) 252-4769.

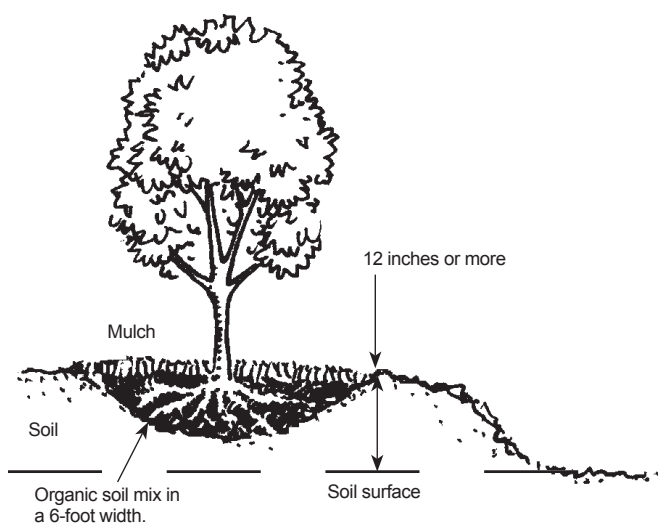


Figure 1. Example of one type of raised bed.

Drainage

One of the greatest challenges to successful gardening is poorly drained soil. Wherever water lies near the surface, most cultivated plants will not survive.

Once a bed settles it needs to have good surface drainage (no standing water). Poor drainage can often be corrected by anticipating the problem and raising the bed 2 or 3 inches to allow run-off.

Sometimes the drainage problem will be more serious, and internal drainage must be improved. Clay soil or soil overlying a hard subsoil is susceptible to waterlogging. Also, low-lying land barely above the high watermark of a river or lake in the vicinity is subject to water-logging. If this is the case, raised beds or berms may be needed (figure 1). In some situations, a drainage system may need to be installed.

Care for your plants promptly. Plant them at once, or keep them shaded and watered until planting. (See *Planting and Establishing Woody Landscape Plants* for more details on planting trees and shrubs.)

Plant Management

After your shrubs or trees are planted, several important things must be remembered. Young transplanted ornamentals need special attention the first year in their new location. Some trees may need to be staked, and all plants should be adequately watered and mulched.

Staking Trees

Trees planted in open areas subject to strong winds should be staked or guyed. Once trees are rooted into their new planting, all stakes and wires should be removed. Do not leave wire supports on a tree for more than a year.

Watering

Soil characteristics and the condition of the plants are the primary guides to watering. After the first year, most landscape plants will naturally obtain water from the soil and not need supplemental watering. However, extra water is needed in periods of drought.

When watering, keep these points in mind:

- Apply water slowly so it can soak into the soil. Drip irrigation is an excellent source for applying water slowly to trees and shrubs in the landscape.
- Wet soil thoroughly to a depth of 8 to 10 inches. Light watering encourages shallow root development. Then, if the shallow watering is neglected for a day or so in a sudden period of hot weather, plants may be damaged or die.
- Avoid too much water; it leaches plant nutrients from the soil and may drown the plant's root system. Remember that gutter downspouts can easily overwater plants in periods of daily rainfall.
- Avoid setting plants so close to a wall that the gutter or overhanging roof blocks natural rainfall. (See *Planting and Establishing Woody Landscape Plants* for more detail on staking and watering new transplants.)

Mulching

Mulching offers several advantages. The greatest is conservation of soil moisture. Evaporation of water from the soil is greatly reduced when the soil is protected from direct rays of the sun and moving air. Also, rain falling on the mulch prevents erosion and a compacted, crusted soil surface. With less crusty soil, water that is applied penetrates the soil more easily, and erosion is eliminated.

A second significant advantage of mulch is the control of weeds. Using mulch greatly reduces the need for weeding and makes it much easier when needed. If you also use a pre-emerge herbicide that kills weeds before germination, the benefit of weed control will be even greater.

Controlling soil temperatures is another advantage. High summer temperatures may injure beneficial microorganisms as well as the roots near the soil surface. Maintaining lower and more uniform soil temperatures in summer promotes bacterial activity in the soil. In winter, frost penetration is less likely to occur in mulched beds. Evergreens must absorb moisture in winter as well as summer. Therefore, winter mulch prevents the soil water from freezing and becoming unavailable to plants.

Organic matter used as mulch can improve soil structure. As it decays, the material works down into the topsoil. Decaying mulch also adds nutrients to the soil. Plant health is improved when surrounded by mulch rather than grass because grass competes for nutrients and water. Grass roots have chemicals that can leach and stunt the root growth of desirable landscape plants.

It is especially important to mulch rather than cultivate around shallow-rooted plants such as rhododendrons, azaleas, and camellias. Cultivating around these plants often damages roots.

Mulching material, such as pine bark or pine needles, improves the landscape's appearance. It is valuable for covering beds near the house or in areas where neatness is important.

Although not outweighed by the advantages, mulching has a few disadvantages. The cost and unavailability of some materials can be a drawback to large-scale mulching.

Heavy mulching over a period of years may result in soil buildup over the crown area of plants. This condition is harmful to plants. If mulch is not degrading sufficiently, rake off the old mulch before applying a new layer. This prevents root and crown damage to plants.



Figure 2. Taking a good soil sample.

Fertilizing

Ornamental plants require nutrients for healthy growth. As plantings age and plants grow larger, supplemental nutrients are often needed.

Different soils contain varying amounts of nutrients. Therefore, one soil or area may require more significant amounts of fertilizer than another to grow plants well.

Refer to your soil test report to determine the amounts of limestone and fertilizer to add to your soil. Remember that a soil test is needed every 3 to 4 years. These reports will allow you to keep your soil at the proper fertility level. For example, the phosphorus level can increase to an excessive amount if a complete fertilizer (such as 8-8-8) is applied every year. If this is the case, a fertilizer with little or no phosphorus (such as 15-0-15) will be recommended. Soil fertility levels cannot be determined by looking at the plant.



Figure 3. Plant with iron chlorosis.

Chlorosis of plants is caused by poor soil conditions, sometimes by over-fertilizing. (Figure 3). The leaf areas between the veins become a light green or yellow while the veins remain a darker green. In extreme cases, the entire leaf may become yellow and drop. This chlorotic condition occurs when the plant's chlorophyll (responsible for photosynthesis and green color) fails to develop normally.

Chlorosis can be caused by poor drainage, high soil pH, or too much phosphorus. If soil tests indicate high phosphate levels, use a fertilizer containing a low level of phosphorus. High phosphorus levels often cause iron in the soil to be less available to plants. A soil test will indicate what steps you need to take.

Pruning

Pruning is cutting out unwanted growth to make plant growth respond in the desired manner. Plants are pruned to produce more or better blooms and fruit, to develop or maintain a desired shape or size, to remove older stems and encourage vigorous young ones to take their place, to remove diseased or seriously injured parts, or to remove dead wood or wood that has winter damage.

Ornamental shrubs often cannot go without pruning if they are to serve their intended purpose in the landscape. Except for a few dwarf or extremely slow-growing plants, prune all shrubs regularly or as needed—usually every year or two in areas designed for high visual impact. For all practical purposes, shrubs and small trees can be pruned at one of two periods, during dormancy (before growth begins in spring) or immediately after flowering.

Spring Flowering Shrubs

Since blooms on these plants are formed on the previous year's growth, they should be pruned in the spring after flowering. Generally, pruned plants will have more or larger flowers than non-pruned ones. The following spring flowering shrubs should be pruned in a selective manner to maintain size and promote growth:

Azalea	Winter honeysuckle
Barberry	Star magnolia (<i>stellata</i>)
Blueberry	Nandina
Crab apple	Flowering quince
Dogwood	Spirea
Forsythia	Viburnum

Summer Flowering Shrubs

Blooms on plants in this category are produced on new spring growth. Therefore, pruning should be done during the dormant season, usually in the early spring before growth begins. Shrubs in this group include the following:

Abelia	Hibiscus
Crapemyrtle	Bush honeysuckle
Elaeagnus	Magnolia (<i>virginiana</i>)

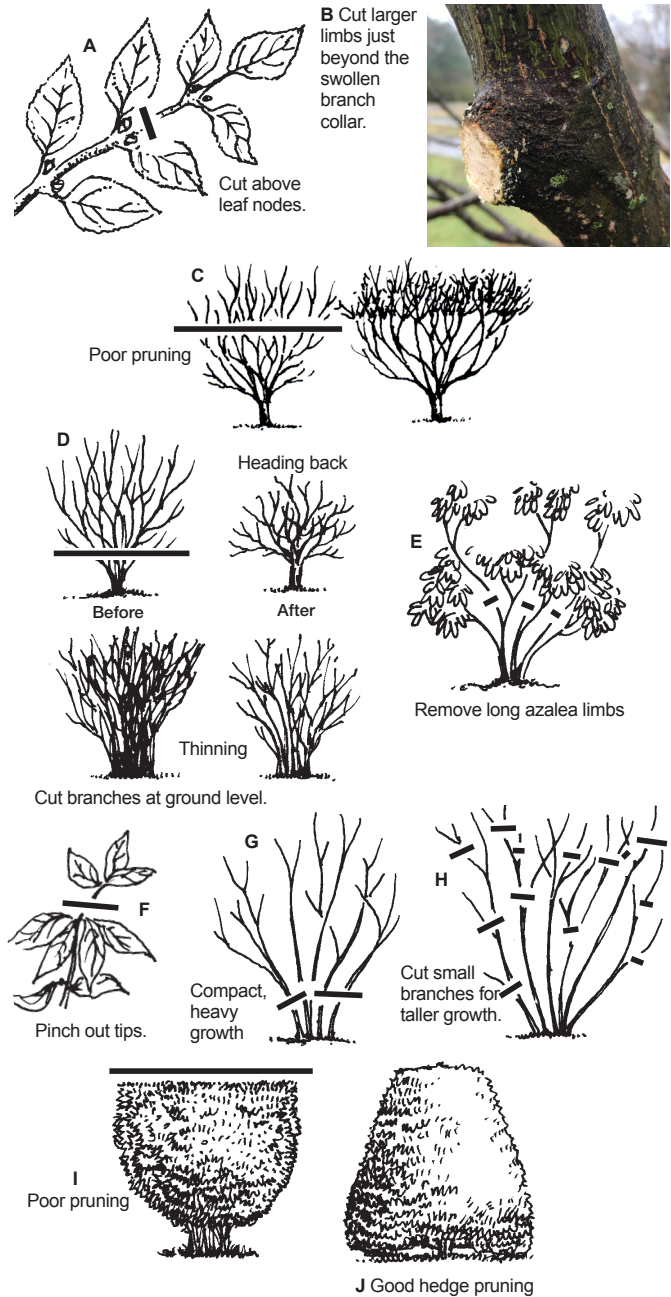


Figure 4. Pruning.

A. Cut small branches just above leaf nodes. B. Cut limbs over 1 inch in diameter just beyond the swollen branch collar of a larger limb or trunk. C. Results of poor pruning methods. D. Examples of proper pruning methods. E. Remove long azalea limbs back inside the plant. F. Pinch out tips of new azalea growth to induce branching. G. Prune multistem plants back 6 to 12" off ground level for compact, heavy growth. H. To produce taller plants, cut out only small branches. I. Pruning hedges straight across top will produce unnatural shape. Prune entire plant to produce rounded effect. J. Hedges should be pruned so that the base of the plant is wider than the top.

Broad-Leaved Evergreen Shrubs

These shrubs can be pruned slightly at any time of the year to shape the plant. However, plants that enter the dormant period with their flower buds already formed should be pruned immediately after flowering. Those that produce their flowers on new wood may be pruned anytime during the dormant period. Some of the plants with these general pruning requirements are as follows:

Aucuba	Cherry laurel
Boxwood	Holly (all species)
Camellia	Cleyera

Coniferous Evergreens

Shrubs in this group should be pruned shortly before or just as growth begins in the spring. The following plants should be pruned in this manner:

Arborvitae	Spruce
Hemlock	Yews
Cedar	Juniper

Small Trees

This group of plants does not require pruning every year. One prune out unwanted growth or damaged branches to maintain their natural habitat. Never remove more than one-third of the canopy in a single year. If pruning is needed, it should be done in June/July or November/December. Here are a few plants in this group:

Redbud	Sweetbay magnolia
Japanese maple	Serviceberry
Dogwood	Hawthorn

Tools

You cannot prune properly without the right tools. Pruning tools are specialized and adapted to particular types of work. Select pruning tools made of good steel and keep them sharp.

One of the first tools you will buy is a hand pruner. These are designed for pruning branches 1 inch in diameter and smaller. Other tools include long-handled pruners (loppers), hedge shears, pole pruners, and pruning saws.

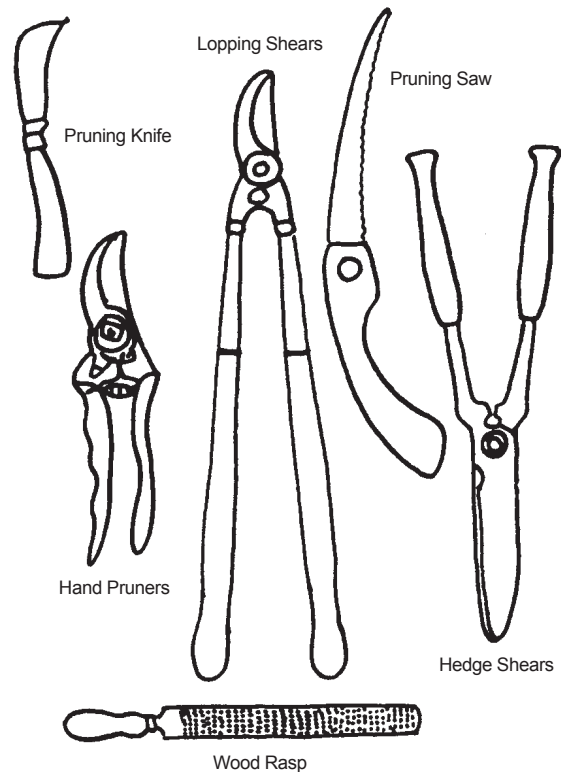


Figure 5. Pruning tools.

Wound dressings or “tree paint” offer no healing powers or identifiable benefit to a tree wound. (For more detailed pruning information, please refer to the Alabama Extension publication, “Pruning Ornamental Plants.”)

Pest Control

Insects and diseases must be controlled if their activity creates long-term health concerns for the shrub or tree. In many cases, insect pests are temporary and cause only minor, aesthetic damage. Some pests attack roots, others feed on leaves and stems or damage flowers. One of the most important steps in the control of insects and diseases is to prevent infestation in the beginning. Buy well-grown plants from a reputable nursery. Inspect plants before purchase and frequently in the landscape for signs of diseases and pests.

Weed control is best done with a good mulching program and hand pulling weeds as needed. If you choose to add herbicide use for weed control, contact your local Extension office to find out what is available. Read the label before purchasing herbicides. This ensures that the appropriate product is selected.

Applying the product evenly and at the recommended rate is also important. This allows for better weed control and prevents injury to your ornamentals. Always read and follow all label directions for pesticide use, storage, and disposal.

Summary

This publication includes information that will help make you more successful when growing ornamentals in the landscape. It is not that a great deal of work is required; however, it is important to know what to do and when to do it.

This publication is one of three in the Woody Landscape Plant series. See the others on the Alabama Extension website at www.aces.edu.

- “Woody Landscape Plants: Planting & Establishing” (ANR-0410)
- “Woody Landscape Plants: Pruning” (ANR-0258)



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Revised August 2022, ANR-0958

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