

11. Water as necessary during the establishment period. Keep the soil uniformly moist -- not too wet or too dry.
12. Allow trees and shrubs time to become established before applying fertilizer, normally at least 3 months.

NUMBER OF PLANTS REQUIRED PER 100 SQ. FT. AT VARIOUS SPACINGS	
Spacing (inches between plants)	Number of Plants Needed
6	400
12	100
16	56
18	45
24	25

Soil Amendment* Calculation						
Chart A: Small Areas. This chart indicates the number of cubic feet of soil amendment you need per square yard of planting area at various tilling depths.						
Depth in Inches	1	2	3	4	5	6
Cubic Feet of Amendment per Sq. Yd.	3/4	1 1/2	2 1/4	3	3 3/4	4 1/2
Chart B: Large Areas. This chart indicates the number of cubic yards of soil amendment you need per 1000 sq. ft. of planting area at various tilling depths.						
Depth in Inches	1	2	3	4	5	6
Cubic Yds. of Amendment per 1000 Sq. Ft.	3	6	9	12	15	18

* Soil amendments referred to here include compost, topsoil, and high-grade prepared soil mixes such as Complete Landscape Mix, Woodland Soil Mix, Professional Planting Mix, Permatil, composted hen manure or worm castings.



The primary source of information for this brochure is <http://pubs.caes.uga.edu/caespubs/pubcd/B932-w.htm#Steps>, an on-line publication prepared by Gary L. Wade, University of Georgia Extension Horticulturist.

Planting Ornamental Plants

Giving Your Plants the Right Start



Proper planting is essential for healthy, vigorous growth of ornamental plants in the landscape. It assures rapid plant establishment by providing a favorable environment for the developing root system.

Planting involves more than merely digging a hole and sticking a plant in it. Careful consideration given to the preparation of the planting site, the time of year for best plant establishment and the handling requirements of different nursery stock will help you avoid problems later on.

Georgia Soil and Plant Requirements

An ideal garden soil has good structure, texture, and content with just the right balance of water, air, minerals, and organic matter. Plants need soil that is fertile, deep, easily crumbled, well drained, and fairly high in organic matter.

The soil must also have the chemical balance to enable the plants to take up the available nutrients. This is measured on the pH scale, which indicates whether the soil is more acid or alkaline. Most plants prefer a slightly acid soil, and some like a lot of acid.

Soil Amendments

As for soil structure and texture, much of the soil in north Georgia is poorly drained or high in hard red clay content. To correct these problems, you should amend your soil (either the whole planting bed or a wide planting hole) with one or more high-grade soil amendments. Some suggestions are listed on the back page of this pamphlet.

If you are not sure of your plant's pH requirements, Leilani's Gardens will be glad to help you. If you need to get a soil sample test for your yard or garden site, you can call your local County Extension Agent for a kit and simple instructions. The report you receive from the test will tell you exactly what you need to do to balance your soil.

**Georgia Mountains
Master Gardeners**



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Steps for Planting Success

1. Survey the planting site. Modify the site if necessary to assure a good growing environment.

When surveying the site, look for:

- (A) potential hazards such as leftover construction debris, chemical or oil spills, and bits of mortar or limestone that would create alkaline soil conditions;
- (B) texture and structure of the soil, e.g., hard clay, sandy, rich and loamy, etc., and
- (C) drainage patterns that would cause excessive dryness or dampness.

If soil debris or contamination is a problem, you may need to remove the top six to eight inches of soil and replace it with a good grade of topsoil. If soil texture and structure are a problem, you will need to till and amend the soil. If drainage is a problem, you should slope beds away from the foundation of the house, build raised beds, or plan to plant your tree or shrub slightly higher than the surrounding ground.

2. Purchase healthy, pest-free plants. Be sure the plants you select are adapted to the site conditions.

- (A) Choose plants that are right for your growing zone; north Georgia is Zone 7.
- (B) Look for plants suited for the amount of sun or shade and wet or dry conditions of your planting sites.
- (C) Whether the plants are sold in a container, balled-and-burlapped, or bare-root, inspect them to be sure they have sturdy, well-formed stems, leaves that are free of insects or evidence of disease, and plump, healthy root systems.

3. When holding plants for later planting, keep them in the shade and water them regularly.

Plants can be held a few days before planting if you protect them from the sun and wind and keep their roots moist but not soggy. Loosely cover the roots of balled-and-burlapped plants with pine straw, saw dust, or soil to conserve moisture.

However, the best practice is to buy plants at planting time. Potted annuals and perennials should be planted when they are available in the garden center. Container-grown generally transplant well throughout the year if they are kept well mulched and watered their first season. Balled-and-burlapped plants do best if planted in fall or spring, and bare-root plants should be planted in the coldest months of winter.

4. Water plants thoroughly before planting to saturate the root ball with water. For a balled-and-burlapped plant, this normally takes about 15 minutes.

5. Thorough soil preparation is essential for healthy plant growth.

(A) When preparing a bed for perennials or roses, rototill the soil to a depth of 12 to 15 inches; for annuals the depth can be 6 to 12 inches. On the second pass, till in your selected soil amendments. If the site has poor drainage, prepare it as a raised bed so it will be at least 6 inches above the surrounding area.

(B) When preparing to plant a single tree or shrub, dig the planting hole 1 ½ times as deep as the root ball and two to three times as wide. Mix the removed soil half and half with your selected soil amendments beside the planting hole.

6. Place bedding plants in the ground so they are at the same level as they were in their containers. Handle the roots as little as possible, and firm the soil gently with your hands to eliminate air pockets around the roots.

7. Gently loosen pot-bound roots of a container-grown tree or shrub. Place a tree or shrub in the hole so the top of the root ball is 1-2 inches above the surrounding soil level. Remove any wire or cord from around the stem of balled-and-burlapped plants (but not the whole wire or cord system), and pull back the burlap from the top 1/3 of the root ball.

Once the tree or shrub is in the hole, refill the hole with the mixed soil and firm it gently with your foot to eliminate air pockets around the roots. Be sure no burlap is exposed above the soil level. Note: You may mix in a small amount of slow release fertilizer and some water retention crystals if these are not already contained in your selected soil amendment; do not mix in mini-pine nuggets or other mulch.

8. Water thoroughly immediately after planting to settle the soil and to eliminate any remaining air pockets that can dry out roots, and then again 3 hours later.

Use a liquid root stimulator in the initial watering to give your plants a good start on establishing their root system. Be sure to follow the label directions.

9. Use stakes or guy wires to support trees or large shrubs in exposed, windy sites. Supporting devices are only temporary and should be removed 6-12 months after transplanting.

Stake from 3 directions, and be sure to protect the trunk with a piece of hose or other soft flexible material so the guy wires don't cut into the bark.

10. Apply 3 to 5 inches of mulch to the soil surface to conserve moisture, keep soil temperature stable, and prevent weeds.

For a tree or shrub, spread the mulch several times the diameter of the root ball; then pull it back a few inches from the trunk to avoid encouraging fungal growth.