

University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service

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HORTICULTURE EDUCATION

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### **Proper Planting of Trees and Shrubs for Establishment Success**

November and December bring the holiday season, but also the best months for planting most trees and shrubs. Soil temperature during this time is warm enough for good root growth, but cool enough to require less water than in the spring. These planting recommendations improve the success of establishing woody plants.

Select a site that meets the needed growing conditions of the plant. Check the drainage by conducting a perk test. If the site does not meet the plant's requirement of a well-drained soil, select another site or change the plant. Furthermore, look around and make sure the tree or shrub has room to reach mature size.

After the proper site is selected, dig the planting hole a minimum of two to three times wider than the soil ball. In compacted soil, dig the planting hole four to five times the width of the soil ball to provide loose soil for easier root growth and establishment.

Dig the hole as deep as the depth of the soil ball. Score the sides of the planting hole with a spade or shovel to prevent the sidewalls from becoming slick like a glazed pot. This prevents

roots from penetrating into the soil causing them to become root-bound in the hole, which strangles the tree as it grows.

Once the tree or shrub is in the planting hole, make sure it will be planted at the same level it was growing in the field or container or set it slightly higher to account for the soil settling. Scratch into the top of the soil ball to find where the roots begin. Roots must have oxygen to take up water and mineral nutrients from the soil. The amount of oxygen decreases as the soil becomes deeper.

Trees and shrubs at the nursery or garden center are available in plastic containers or balled and burlapped. Plastic containers must be removed by tapping the bottom and sides of the container to loosen it from the soil ball. If the container-grown plant material is root-bound, the roots may continue to spiral around within the planting hole. To prevent this, pull the roots apart or use a sharp knife to make vertical cuts 1 inch deep in four to six different locations around the root ball. Don't handle the plant by the trunk to prevent too much weight on the base which breaks roots.

When handling a balled and burlapped plant, do not drop it off a truck or into the planting hole because the ball will crack and break the roots. Also, do not pick up the plant by the trunk since the roots cannot support the weight of the soil ball. Move the plant carefully by handling the soil ball.

On a balled and burlapped plant, cut and remove the twine from around the trunk. Next, cut away as much of the burlap as possible without the ball falling apart. Burlap today may contain synthetic materials that will not degrade in the soil. In addition, the burlap may repel

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water and the soil ball will stay dry. Also remove the wire basket, if present, with wire cutters. Removing these will allow the plant to grow without strangling the trunk or major roots, which could lead to a poor growing plant and may eventually kill it.

When filling in the planting hole, it is best to put back the same soil that came out of it. If the soil is amended with organic matter or sand, the soil may drain even slower. This can cause water to pool and possibly drown the plant. Amending heavy soils with finished compost, peat moss, or well-rotted, weed-free manure is a good idea only if an entire bed for trees or shrubs is being prepared.

As the soil is backfilled into the hole, tamp it lightly around the root ball. Water the plant when the hole is half-full of soil and again when finished filling it in.

Add a layer of mulch 2-3 inches deep around the plant to help control weeds, conserve soil moisture, and keep lawn mowers and weed eaters away from the trunk. If the mulch is too deep, the roots will not be able to get oxygen and the tree or shrub will suffocate.

Allow the plant to remain in its new site for one year before fertilizing. Plants generally do better if allowed to recover from the initial shock of transplanting before fertilizer is applied. If needed, fertilize it in the fall of the second year after it is dormant.

Trees and shrubs should be staked only when there is a likelihood they may blow over in high winds. Trunk diameter and strength usually increase faster on unstaked plants, which are allowed to move with the breeze. If staking is necessary for top-heavy trees, it is suggested to use three stakes. Usually, the stakes can be removed after one year.

For more information about planting trees and shrubs, contact the Daviess County

Cooperative Extension Service at 270-685-8480 or annette.heisdorffer@uky.edu.

### Annette's Tip:

Continue to check yourself for ticks after walking in tall grass, in locations where

wildlife frequents, or along the edge of wooded areas.

### Upcoming Events:

November 14, 8:00 a.m. to noon: Free continuing education for Commercial Pesticide

License holders. Please RSVP by calling 270-685-8480.

November 14 at 1:00 p.m. "What to Expect When You Are Expecting Emerald Ash

Borer - in Daviess County" a discussion covering ash trees in the landscape and forest.

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It is recommended to divide and replant perennials by October 1. This allows time for the roots of the plant to grow and anchor it in the soil. Otherwise, the plant may heave out of the soil when the soil freezes and thaws.