

POCKET GUIDE

Picking a Good Tree



Alabama Cooperative Extension System

ANR-2059

A man in a light blue button-down shirt and khaki pants stands in a field, looking down at a tree in a black plastic container. The tree's trunk is leaning to the left. The background shows a grassy field and a line of trees under a bright sky. A semi-transparent blue box with white text is overlaid on the left side of the image.

The #1 problem in tree selection is root defects in container grown trees.

To Picking a Good Tree

Buying a tree is a livestock purchase. Think about it. You are buying a living organism. Your money well spent depends on the tree being good from the point of purchase. Try to avoid picking out a tree in poor condition just as you would avoid buying a sick pet or a farmer would avoid purchasing a cow with a broken leg.

Trees cost more than money—they also cost time. Buying a poor-quality tree not only wastes money, it also wastes time. Trees in poor condition can take years to weaken, become sick, and finally die.

Money can be earned, but time can only be spent. Choose the best quality tree possible. The following guidelines will help you select a healthy specimen capable of growing into a vigorous tree.

Using This Guide

Before you purchase a tree, take a good look at it. Visual inspections let you see clues about a young tree's health and about how well it will perform. In the following pages, we provide a pictorial guide to common nursery defects for each tree part.

Be aware—perfect trees are rare. Some defects are not critical and can be easily corrected. Others, which may come from neglect and mismanagement, are serious and will lead to further problems.

Leaves, Stems, and Branches

Leaves*

Foliage should

- Be evenly distributed
- Cover about 60 percent of the tree's height
- Have an appropriate color

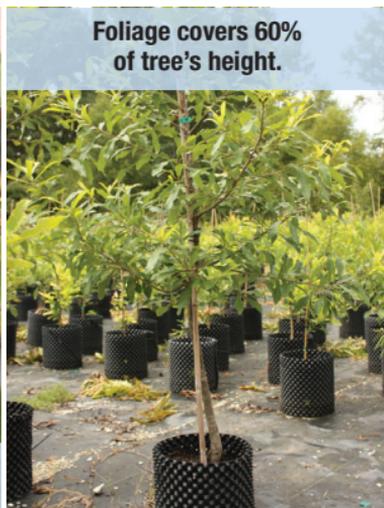
**If buying trees in winter (the ideal planting time), there will be no leaves to evaluate. Instead, make sure that stems are live to the ends. You can check this by lightly bending the stem. Green stems will bend and dead ones will break. Avoid trees with dead branches at their extremities.*

Don't buy trees with leaves that

- Are sparse or unevenly distributed
- Are off-color, pale, or yellow
- Show significant disease spotting or have been chewed by insects



Good evenly distributed color.



Foliage covers 60% of tree's height.



Avoid crinkled and deformed leaves.



Avoid yellowing leaves.



Avoid lopsided uneven canopies.



Avoid leaves with insect damage.

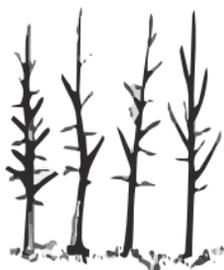
Trunk

A tree by definition has a single stem and that is its strongest form. Unless you want a multistemmed tree, look for a tree

- With a single trunk
- That is straight
- That stands up on its own
- That has clean and undamaged bark

Don't buy trees with trunks that are

- Forked or bent
- Have any damage (cracks, wounds, etc.)
- Wrapped so that you can't see the trunk



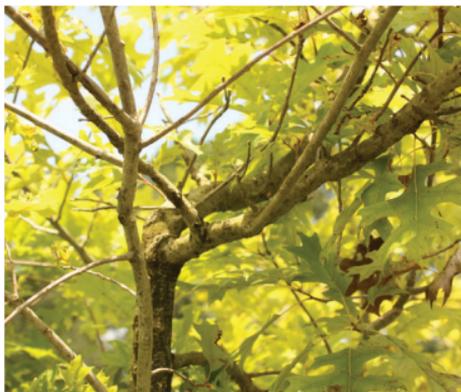
Best quality



Good quality



Poor quality



Clustered branching.



Bent stem.

Insect damage.



Cracks and wounds.



Forked tree leads to poor structure and possible failures.



Disease conks or unusual indentions in the bark.

Sunscauld or unusual bark indentions.



Girdling by old tape or straps.

Branches

Trees should have distributed branches that are smaller in diameter than the main trunk and shorter than the trunk is tall. Pruning in the nursery should make these branches subordinate to the main stem. Look for trees with branches that are:

- Half or less than half the diameter of the trunk
- Distributed along the upper 60 percent of the trunk
- Arranged evenly around the trunk to make a good canopy



Good tree structure.



Bad tree structure.

Over time, topping can lead to multi stems, which lead to tear-out and dangerous trees.

Beware of trees with branches

- On only one or two sides of the tree (lopsided)
- That have been sheared to make the tree look round
- That have been topped (main trunk pruned off near top of tree)
- That are profuse and emerging from a single spot on the trunk

When the aboveground visual inspection is complete, it's time to inspect the most important part—the tree's roots. Good roots mean easier establishment, faster growth, and better performance.

Avoid irregular, patchy or clustered branching. Branching should be evenly distributed.



Sign of stress is seen in small branchy sprouts near the tree base.



Topped seedlings leads to clustered and multiple competing stems.

Clustered branching causes weak structure as trees mature.



Aboveground Visual Inspection: Roots

Young trees are usually sold in two ways: containerized or balled and burlapped (B&B). Below are the best root qualities for each type.

Containerized

Containerized trees are grown in pots above ground. Circling roots are a common problem with containerized trees. Roots tend to grow around the perimeter of the pot in which the tree is growing. If these are not pruned off when trees are transplanted from a small to a large pot, these old circling roots can be buried deep inside the root ball. When transplanted into the landscape, these roots will continue to grow in a circular motion stagnating growth, causing stem girdling, and eventually making trees more susceptible to pests and disease.

Look for the following

- A visible root crown (swollen area where trunk meets the roots). It should not be buried
- Large lateral roots that are growing away from the tree and that are within one inch of the soil surface.
- A tree firmly rooted that doesn't wiggle around in the pot.



Avoid any trees with circling roots.

Moss can indicate overly dense roots and root-bound trees.



Extreme example of root-bound tree.



Good: Root collar visible near soil surface.

Beware of the following

- Circling roots deep inside the pot
 - a. Overly dense, sick, dying roots
 - b. Trees moves inside the pot when pushed or wiggled
 - c. Large roots growing through pot openings

Stem girdling roots.



Avoid trees that move or topple over inside the container.



Large roots growing through openings can indicate circling roots inside.

Balled and Burlapped

Balled and burlapped refers to a common type of nursery tree that is field grown then dug and wrapped in burlap and string and sometimes placed in a wire basket.

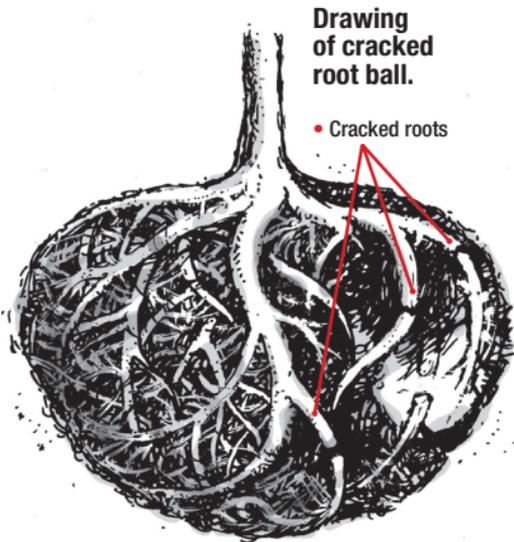
Look for the following

- Clean, new looking burlap
- A tree stored with the ball buried in mulch or under constant irrigation

Beware of the following

- Old or rotted burlap
- Weeds or tree root suckers growing out of the root ball
- Root ball allowed to dry out
- Cracked, broken, or soft root ball

Look out for the trunk moving independently of the rootball. This signifies **broken roots**. Check by pulling on the tree's main stem to see that it does not wobble inside the rootball.





Discolored, rotten, or burlap with weeds is evidence of long-dug trees. Survival will be poor.



Clean and new burlap is evidence of recently dug and healthy tree.

Aboveground Visual Inspection: Ratio of Roots to Shoots

A healthy young tree should have a root system large enough to provide water and nutrients and to hold up the tree. An adequate root system is particularly important during the establishment period or the time it takes a tree to grow roots into the planting site so it can survive without supplemental watering. The rule of thumb for the establishment period is 4 to 6 months per caliper inch. (A 2-inch tree will take nine to twelve months to become established.)

Look for the following:

A tree with an adequate rootball to support its trunk size:

Trunk Caliper * (inches)	Minimum Ball Diameter B&B (inches)	Minimum Container size (Gallons)
1	12	5
2	18	20
3	20	45
4	30	95
5	36	95

**Caliper is the diameter measure of a nursery tree's trunk or stem. Trees up to 4 inches in caliper are measured 6 inches above the soil. Trees 5 inches or larger in caliper are measured 12 inches above the soil.*

Beware of the following:

- Large trees in small pots



Final Word

A tree represents a tremendous investment of both money and time. Don't start off by buying a low-priced tree that will disappoint. Professional nurseries offer trees that are of the highest quality, but so are their prices. Retail outlets and small shops may also have good trees in stock. But because their primary business may or may not be professional horticulture, be very, very selective about what you buy. Some of these cheaper trees may be short-lived trees.



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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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