

Fruit and Nut Review: Pecans in the Home Landscape

There are advantages and disadvantages to growing pecans in the home lawn. Generally, a pecan tree grows rapidly after the first 2 to 3 years and offers dense shade. The foliage is dark green. Nut production is highly variable. On producing years, nuts are good for human consumption and for attracting wildlife.

Disadvantages of pecan trees include sooty mold that drips on sidewalks, automobiles, and houses. The mold develops on the honeydew excreted by aphids feeding on the pecan tree. Another disadvantage is the early leaf loss from various diseases and insect damage. This leaf loss can sometimes occur in late summer, and homeowners have no practical method to control it. Some local pesticide companies offer a spray that can help combat sooty mold, diseases, and insects.

Varieties Recommended for the Home

Disease resistance is extremely important when selecting a variety to plant in your home landscape. The following are pecan varieties recommended for Mississippi. Some are designated for north Mississippi and others for south Mississippi.

Cape Fear has bright kernels and a high productivity rate. It has adequate scab resistance but experiences severe leaf scorch.

Forkert produces a high-quality nut with a high-percent kernel weight. The nut is of adequate size and thin-shelled. Even though it is susceptible to scab, Forkert is considered a good home pecan.

Kiowa produces large, high-quality nuts with a high-percent kernel. It has good scab resistance. This pecan is similar to the old variety Desirable.

Owens has large, well-filled nuts and moderate production. The nuts are thick-shelled. The tree is scab-resistant and has done well throughout Mississippi.

Sumner, from South Georgia, has good nut size and kernel percentage. Scab resistance is good; harvest is late. South Mississippi only.

Elliott is a scab-resistant variety favored for planting in home lawns. The small, teardrop-shaped nuts have high-quality kernels. Older trees tend to bear alternately. Observations indicate that it is aphid-susceptible and may be prone to late frost and winter damage. South Mississippi only.

Melrose produces a good-quality pecan of adequate size. In addition to excellent scab resistance, it is reported to be more tolerant of zinc deficiency than other varieties. South Mississippi only.

Jackson produces a large nut with a high-percent kernel weight. It has moderate scab resistance. Grower reports indicate older trees do not consistently produce good yields and quality.

Site Selection

The rooting depth of a pecan tree is sometimes 6 to 10 feet. Therefore, selecting a well-drained, deep soil is best. Avoid excessively wet soils and crawfish or buckshot soils. Water should never stand for any period of time on the site. Create a berm if necessary to increase surface drainage. Pecan trees require full sun; no large shade trees or buildings should be close. Remember—pecan trees eventually get very large. Plant the trees 50 to 75 feet apart.

Container versus Bareroot Trees

Container-grown trees have feeder roots intact and can be planted any time of the year (avoid hot months). Container trees not planted immediately can be held in the shade with adequate watering. Since the roots of container-grown trees aren't disturbed at planting, there is no need to prune back the top. Container trees experience less transplant shock and usually produce sooner than bareroot trees. On average, more container trees than bareroot trees survive after planting.

Container trees usually cost more than bareroot trees and may be pot-bound with roots coiled inside the container. Cut coiled roots before planting. Container trees must be picked up at the nursery, not shipped like packaged, bareroot trees.

There usually is a greater selection of bareroot trees than container-grown trees because more nurseries produce them. There usually is a wider selection of sizes and varieties. Bareroot trees cost less than container trees because they are less expensive to produce. In most cases, 2 to 3 feet of taproot is intact on the bareroot tree, and this helps to anchor the tree when planted. This also increases the tree's ability to withstand drought.

Planting and Training

Proper planting and training of pecan trees is very important. Follow these guidelines:

1. **Purchase good trees.** Use sturdy, vigorous trees from a reliable nursery source. The root system should be free of crown gall or nematode damage, and the top should be well grown and must be identified correctly as to variety. A moderately sized nursery tree suffers less "transplant shock" and usually becomes established and grows off faster than a large tree.
2. **Keep roots moist at all times.** If bareroot, dampen packing medium when trees arrive. Plant immediately or place in cold storage. If trees must be held for several days, heel in with moist soil. If the trees are in containers, water as needed.
3. **Trim the root system as needed.** Cut off all broken and bruised roots with sharp shears or a knife. Most new roots develop on side roots and not more than 10 inches from the taproot. Examine the roots closely for serious diseases or insect infestations.
4. **Prune the top.** Remove a third to half of the top portion of the tree to compensate for the loss of a major part of the functioning root system when the tree was dug. If the nursery tree has light or no branching, cut off $\frac{1}{3}$ to $\frac{1}{2}$ of the main trunk.
5. **Be sure the planting hole is wide and deep enough to accommodate the root system of the tree without bending any of the roots.** If the soil is too heavy-textured or too infertile that it requires digging a large hole, it is not suitable for growing pecans.
6. **Set the tree at the same depth it stood in the nursery row.** Arrange the roots in their natural positions. Fill the hole about $\frac{3}{4}$ full with friable topsoil; work soil around the roots. Pour water into the hole to settle the soil; eliminate air pockets and keep the roots moist.
7. **Fill the hole.** Use loose topsoil to finish filling the hole. Leave the soil unpacked on the surface to allow water from rain or irrigation to penetrate easily. Leave a basin to facilitate watering the tree.
8. **Water the young tree.** Keeping optimum soil moisture levels in the root zone is essential the first season. The functioning root system is limited at this time. Keep the basin area free of weeds. Prevent crusting of the soil surface by using heavy mulch.
9. **Train the young tree.** During the first and second growing seasons, let all shoots from buds on the trunk (above union) grow. When shoots on the lower portion of the trunk start vigorous growth, cut them back to 4 to 6 inches and keep at this length. This "trashy trunk" method protects the trunk from sun-scald and wind damage. It makes the trunk increase in diameter and strength at a fast rate. Cut all water sprouts or suckers that develop below the bud union. The branch angle is directly related to the position of the bud originating the branch. At each node, pecans may have up to six buds lined up one above the other. The primary bud (uppermost one) generally produces the most vigorous branch with the most narrow crotch angle. Use the primary bud solely to perpetuate a central leader. If allowed to develop into branches, these primary buds always produce narrow crotch angles that later lead to limb splitting. Eliminate "Y" crotches by cutting one of the forks back or completely off. Correct "crow's-feet" crotches where three or more limbs arise near the same point—leave one intact and cut the others back or off.
10. **Prune pecan trees.** Continue to eliminate "Y" crotches and "crow's-feet" as the tree grows. This helps build strong, wide-angle crotches. The top at the end of the second or third growing season can shade the trunk, and the trunk will be strong enough to withstand wind drift so the branches on the lower part of the trunk may be removed. The climate, spacing, and cultural procedures determine the desired height of the permanent lower limbs on a pecan tree. It usually is not advisable to have permanent scaffold limbs lower than 5 to 6 feet. Prune during the growing season to continue developing the desired tree shape.

Fertilizing Young Trees

Soil test and apply residual fertilizer before planting trees. Begin fertilizer applications 3 to 6 months after planting. If a soil test is not taken, apply 2.5 to 3 pounds of 13-13-13 in February or March the year the tree is transplanted. For the following years, apply 3 to 4 pounds of 13-13-13 for each inch of trunk diameter, measured 1 foot above the soil surface. Do not put fertilizer materials any closer than 12 inches to the tree trunk. Fertilizer materials at high rates can damage the tree root when placed too close to the trunk.

Annual terminal growth for young pecan trees should be from 2 to 4 feet. Where growth of trees has been less, in May or June apply nitrogen in addition to the mixed fertilizer at the rate of 1 pound of ammonium nitrate (33 percent N) per tree for each inch in trunk diameter. This additional nitrogen application often is needed on very sandy soils. Make supplemental nitrogen applications when irrigation is available.

Information Sheet 1432 (POD-07-25)

Reviewed by **Eric T. Stafne**, PhD, Extension/Research Professor, Coastal Research and Extension Center. Written by Freddie Rasberry, PhD, former Extension Horticulturist, Frank Matta, PhD, Professor Emeritus, Plant and Soil Sciences, John Braswell, PhD, former Extension Professor, Coastal Research and Extension Center, Richard Mullenax, former Professor and Head, Plant and Soil Sciences, and John Davis, former Extension Horticulture Specialist.



Copyright 2025 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. Discrimination is prohibited in university employment, programs, or activities based on race, color, ethnicity, sex, pregnancy, religion, national origin, disability, age, sexual orientation, genetic information, status as a U.S. veteran, or any other status to the extent protected by applicable law. Questions about equal opportunity programs or compliance should be directed to the [Office of Civil Rights Compliance](#), 231 Famous Maroon Band Street, P.O. 6044, Mississippi State, MS 39762.

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. ANGUS L. CATCHOT JR., Director