Planting Pecan Trees

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Pecan nursery stock varies substantially in trunk diameter (caliper) and height. Trees may have a 3- to 4-year-old rootstock (plant coming from seed) and a 1- or 2-year-old scion (top coming from a bud propagated on the rootstock). Three-year-old rootstock with 1-year-old scion is most common in nursery stock. Select a scion with a caliper of 5/8–1" at about 4–6" above the bud union. Nursery stock with thicker caliper is usually more expensive and may suffer more severe transplant shock. The rootstock should have a strong taproot but, more important, it should have numerous pencil-sized lateral roots along the tap root.

Fully dormant pecan trees can be planted as bareroots during the winter season. February is the best time to plant because it provides enough time before spring for roots to become established. Trees planted early in the planting season will be established sooner and will develop new roots faster to support the spring growth. Nursery stock should be ordered in early fall to ensure acquisition of selected varieties. Plant at least two varieties to ensure pollination. Varieties suggested for planting in New Mexico include 'Western Schley', 'Cheyenne', 'Ideal' ('Bradley'), and 'Wichita'. The last two varieties are recommended as good pollinators.

In the shorter growing season of northern New Mexico, these varieties will not bear fruit. Growers should try varieties developed in northern U.S. such as 'Major', 'Peruque' (early pollen shed), 'Fritz', 'Hodge' (late pollen shed), or 'Sullivan' (recent NMSU release). These varieties require fewer days from bloom to maturity.

In laying out an orchard, it is important to first establish a straight base line to ensure straightness. Second, a perpendicular line must be laid out according to given reference points. Some growers use a rope with three knots whenever a tree needs to be placed. These three knots will be used to form a triangle shape; the two short sides of the triangle will have the same length as the tree spacing (15' x 30', 30' x 30', 30' x 60'). The longest side will represent the length of the diagonal made when the rectangle (or square) shape made by the planting design is cut in two triangles. The rope with a triangle shape is placed with one of the short sides on the start of the base line, and two tree-positions can be marked; one is the base line and the other is the adjacent row. The triangle-shaped rope can then be moved over the base line first; then the rope can be moved to the next line, and so on.

Trees need to be stored properly if they are not going to be planted immediately. Roots should be kept out of the sun and drying winds. Exposure will dry out roots and decrease survival potential. Trees should be stored under shade with the roots completely covered with moist soil, peat, sphagnum moss, sawdust, or similar material. It is important that roots be kept moist at all times.

Holes should be dug before the trees arrive from the nursery. The holes must be large enough to place the roots of the young trees in a normal (spread) position, deep enough to accommodate the length of the roots and for the tree to be set to such a depth that the bud union will be approximately 4 inches above the ultimate soil level. Holes are usually 3' x 3' with a 3–4' depth. Keep in mind that the soil tends to settle somewhat after the tree is planted. With heavier soil, holes should be about 18" deeper than the tree roots and backfilled before planting.

The survival of newly planted pecan trees is dependent largely on the care they receive from the time they leave the nursery until growth begins in the spring. For the best results, observe the following instructions:

1. Set trees out as quickly as possible. Heel in trees in a shady place; keep roots moist if they cannot be set immediately upon arrival from the nursery.

2. Dig holes large enough to spread roots out without cramping, usually 2–3' wide and deep enough to accommodate the length of the tap roots. With heavy soils, holes should be about 18" deeper than the length of the tap root.

3. Remove packing material which was placed around roots to keep them moist. Soak roots for one hour in water before planting.

4. Ultimate position of the tree in the hole should be the same depth as it had when grown in the nursery. You can tell where the ground line was by the difference in bark color. Because the soil tends to settle down a bit a few days after planting, trees should be planted a couple of inches deeper so they will end up planted at the right depth. Trees planted too deep or too shallow may not live.

5. Spread lateral roots out and work good topsoil around them as you fill the hole. Do not push the lateral roots down against the tap root. If soil has a lot of clay or sand, mix in one bushel of peat moss, leaf-mold, or well-rotted compost.

6. When the hole is half full with loose topsoil, pour in at least 5 gallons of water to settle soil around the roots. Fill hole within 6" of the surface and water again. After the water settles, finish filling the hole with loose topsoil and leave a basin around the tree of sufficient size to hold 10 gallons of water. (Do not tramp the soil—this may damage the lateral roots and compact heavy soil.)

7. Pruning one-third to one-half of the top is one secret of getting trees to thrive. If this was not done at the nursery, prune after planting. Prune all lateral branches to six-inch stubs. (Growth on these stubs the first year or two will help protect the trunk from sunscald). Newly transplanted trees grow slowly. However, if they have not budded out by late June, cut them back again to force growth on the remaining trunk.

8. Do not mix barnyard manure or commercial fertilizer with soil when backfilling as burning of roots may result. One-fourth pound of urea or similar nitrogen formulation and 1/8 lb zinc chelates per tree may be applied shortly after leaves appear.

9. Water thoroughly monthly until leaves appear, then water every 7 to 10 days. Thorough watering to the full depth of the roots is essential. If poorly drained soil is used, avoid ponding water around the base of the tree for more than two hours.

10. Keep soil free of weeds in an area extending at least 3' from the trunk.

11. Growth of newly transplanted pecan trees is usually limited the first year, leaving the trunk exposed to possible sunscald. Wrap the trunk loosely with aluminum foil, burlap, heavy paper, or special tree trunk protectors. Trunks can also be whitewashed to reflect sunlight.

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