

THE GRAPEVINE

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START TREES OFF RIGHT

Research from K-State's John C. Pair Horticultural Center has quantified the effect of controlling grasses around newly planted trees. Jason Griffin, William Reid, and Dale Bremer conducted a study to investigate the inhibition of growth of transplanted, seedling trees when lawn grasses were allowed to grow up to the trunk. There were five treatments, including three with different species of grass:

1. Bare soil maintained with herbicides.
2. Area under tree mulched 3 inches deep.
3. Tall fescue allowed to grow under tree.
4. Bermudagrass allowed to grow under tree.
5. Kentucky bluegrass allowed to grow under tree.

All treatments were applied to Eastern redbud seedlings as well as to pecan seedlings. All trees were fertilized according to recommendations and watered during the growing season with up to 1 inch of water if rainfall was deficient. At the end of two years, trees were measured and harvested. Data was taken on caliper (diameter) 6 inches above the ground, weight of aboveground portions of the tree, leaf area, and leaf weight. There were no differences in any measure between the mulched treatment and the bare soil treatment for either tree species.

All measures showed significant growth increases if grasses were controlled around the tree.

Results include the following:

1. *Caliper:* Caliper measures 6 inches above the soil surface were twice as large for plots without grass than for those with either fescue or bluegrass, but only 50% larger when compared to the bermudagrass plots.
2. *Top growth weight:* Redbuds showed a 300% weight advantage for plots with grasses controlled than those without. Pecans showed a significant 200% increase.
3. *Leaf area and leaf weight:* Leaf areas were 200% larger in plots without grass competition and leaf weight showed a 300% increase.

The obvious conclusion from this study is that grasses must be controlled under a newly transplanted tree to get the best possible growth. Though there were no differences in growth whether mulch was used or not, you may still wish to mulch for aesthetic reasons or to help control weed growth. How far from the trunk should mulch extend? Try a minimum of 3 feet.

BIRD FEEDING

Severe winter weather is not only hard on people but can be a life and death struggle for birds. Though birds also require water and shelter, food is often the resource most lacking during cold weather. Many different bird food mixes are available because various species often prefer different grains. However, there is one seed that has more universal appeal than any other: black oil sunflower. If you are new to the bird-feeding game, make sure there is a high percentage of this seed in your mix. White proso millet is second in popularity and is the favorite of dark-eyed juncos and other sparrows as well as the red-winged blackbird. As you become more interested in bird feeding, you may want to use more than one feeder to attract specific species of birds.

Following is a list of bird species with the grains they prefer.

- Cardinal, evening grosbeak and most finch species – sunflower seeds, all types.
- Rufous-sided towhee – white proso millet.
- Dark-eyed junco – white and red proso millet, canary seed, fine cracked corn.
- Many sparrow species – white and red proso millet.
- Bluejay – peanut kernels and sunflower seeds of all types.
- Chickadee and tufted titmouse – peanut kernels, oil and black-striped sunflower seeds.
- Red-breasted nuthatch – oil (black) and black-striped sunflower seeds.
- Brown thrasher – hulled and black-striped sunflower seeds.
- Red-winged blackbird – white and red proso millet plus German (golden) millet
- Mourning dove – oil sunflower seeds, white and red proso plus German (golden) millet.

Extended cold periods can also make water unavailable. A heated birdbath can be a tremendous draw for birds during times when all other water is frozen. Energy use is usually less than what most people expect IF the heater has a built-in thermostat.

PAWPAW TREES: A NATIVE FRUIT

Even though pawpaw is native to eastern Kansas, many people in the state have never eaten one. Fruits resemble fat bananas and are generally up to 6 inches long and as much as 3 inches wide. The taste is unique and is difficult to describe but is often said to resemble bananas or pineapple and has a texture somewhat like custard. They are rarely grown commercially because they are difficult to ship and do not store well. Ripe fruit will only hold 2 to 3 days at room temperature and up to a week under refrigeration. Pawpaw prefers a well-drained, moderately acid (pH 5.5 to 7.0), moist soil and high organic matter content. Organic mulch is also recommended. Irrigation will be helpful to necessary depending on what part of Kansas they are grown. In the wild, the pawpaw is an understory tree and may do better with partial shade, especially during the first 2 to 3 years. Protection from high winds is also advisable due to the large leaves. The pawpaw is a small tree that may reach 20 feet high but is less broad. Trees require cross-pollination and so at least 2 and preferably 3 different varieties should be grown. These trees are pollinated by insects other than bees such as beetles and flies and must be planted close together. Trees should be no further than 30 feet apart in order to insure good pollination.

The soil for planting should be prepared in advance of receiving the trees. Amend the soil with organic matter in the area where the trees will be planted. Do not amend just the soil from the planting hole especially if the soil is heavy and has high clay content. If you do, you have essentially made a pot that will hold water and may drown the tree. Rather add organic matter to the area in which the tree will be planted before digging the planting hole; at least a 10- by 10-foot square. You may want to treat the entire area where your trees will be planted. Add 2 inches of organic matter to the surface of the soil and then till in. The planting hole should be the same depth as the root system but 2 to 3 times as wide. Pawpaws have fleshy roots and are better planted in the spring (April) rather than fall unless container grown. Container-grown plants can be planted virtually anytime. Keep newly planted trees well watered. The soil should be moist but not waterlogged. Keep the planting area completely free of weeds or any other type of vegetation within 3 feet of the trees. Mulching is recommended.