Department of Plant Sciences

PERSIMMONS FOR TENNESSEE GARDENS AND LANDSCAPES

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Persimmons are a novel and interesting fruit crop for Tennessee gardeners. The native species (Diospyros virginiana), called American Persimmon, can commonly be found throughout the South. Although persimmon trees are a common sight in forests and older farms, many gardeners are rediscovering this native fruit crop as an edible species for humans and wildlife. Additionally, gardeners in the warmest areas of the state can grow Asian persimmons (Diospyros kaki), which produce larger fruit on what is generally a smaller tree. Whether interested in native plants, novel home fruits, or wildlife support, persimmons have much to offer in the home landscape.



Figure 1. Native persimmon (D. virginiana) fruit that is still immature. age credits: John Ruter, University of Georgia, Bugwood.org

Crop Description and Selection

The common name persimmon is derived from the Algonquin word 'putchamin,' meaning dried fruit while *Diospyros* means "fruit or wheat of the gods." Native persimmons were noted and described by early explorers including Hernando De Soto in the 1500s and John Smith in the early 1600s. William Bartram, the most well-known early American botanist, also described persimmon in *Travels, of 1773*, which was likely how early plant collectors George Washington and Thomas Jefferson were introduced to persimmons.

Asian persimmons were introduced in the 1850s, reportedly by Admiral Perry after discovery in Japan. After their introduction, a commercial industry developed in southern and western states by the early to mid-1900s. Asian persimmons are what we find in grocery stores today.



American Persimmons

Native persimmon trees can have a mature height of 30 to 50 feet or more with a spread of 20 to 35 feet, which can make harvest challenging. Home gardeners harvest fruit as it drops from trees after early frosts. Ripe fruit can vary in color and size from orange/gold to red or even blueish and most fruit are only one to two inches in diameter. The fruit are astringent when immature due to a high level of tannins but are sweet and flavorful at an advanced stage of ripeness. However, many gardeners find themselves in competition with wildlife for these very ripe fruits. Many species of wildlife including bears, deer, songbirds, raccoons, opossums, and squirrels often beat gardeners to the harvest.

Many native persimmons purchased or grown in the landscape are seedlings that are unnamed. However, there are some named cultivars selected for higher production or fruit flavor including 'Even Golden,' 'John Rick,' 'Miller,' and 'Killen.' Native persimmons are usually dioecious, with male and female flowers produced on separate trees. So, it is generally best to have multiple trees for cross pollination, but there are some self-pollinating cultivars now available in trade, such as 'Prok' and 'Yates.'

Some key features of native persimmons can help with identification. Trees have small white to green/yellow flowers in late spring to early summer with fruit maturing in the fall. Male flowers are more tubular and often in clusters while female flowers are shaped more like a bell and are generally solitary. The bark also is rather distinctive with squarish blocks that resemble a checkerboard. This bark pattern is sometimes referred to as "alligator bark." Fall leaf colors of yellow, orange, and red are a great addition to the residential landscape.

Asian Persimmons

Asian persimmons are smaller trees (20-30 feet tall and 15-25 feet wide) with larger fruit that can be two to four inches in diameter. Asian persimmons differ from the native species because fruit can be astringent or nonastringent. Similar to native persimmon fruit, astringent Asian persimmons will need to be harvested at a very ripe and soft stage for good eating quality. However, nonastringent types can be eaten while the fruit is still firm. The texture at this stage is similar to an apple or pear. Some Asian persimmons require cross-



Figure 2. Nearly mature Asian persimmon (D. kaki) fruit.

pollination, but there are cultivars with perfect flowers and, even still, others that can produce fruit without fertilization (called parthenocarpic).

Although Asian persimmons (*D. kaki*) can produce a larger and less astringent fruit, native persimmons (*D. virginiana*) are more widely adapted across the state due to their winter hardiness. Asian persimmons vary in their winter hardiness zone listing, with many listed as zone 7-10 and a few listed as zone 6. Wide cultivar trials have not been conducted to evaluate

hardiness, but Asian persimmons have been successfully grown in zone 7 sites in Tennessee. Grafting Asian cultivars onto native persimmon rootstocks may increase cold hardiness, but the growing range in the state is still somewhat limited. There are a few hybrids of the two species beginning to be available. Be sure to research closely and choose a species or cultivar that fits your site, needs, and climate.

Planting and Growing

Persimmons will be most productive in sunny sites with moist, well-drained soils. Sites with shade are possible because trees can survive in marginal locations, but the yield will likely suffer. Similar to other fruit crops, a slightly elevated site can extend the growing season by avoiding the cold air that settles in low areas of the landscape.

Native persimmons are commonly found on the outskirts of wooded areas, field margins, and fencerows. However, the large taproots can create challenges in moving trees from native sites. Native persimmons can be grown from seed if the seed is refrigerated for a few months to mimic winter (called stratification). Plant several seeds because the germination percentage is often low. After germination, grow the young seedings in a container deep enough for good root growth and transplant after one to two years. Keep in mind that trees grown from seed often take longer to begin bearing fruit than grafted trees, so these seedlings will be slower to fruit and have more uncertain fruit quality than known cultivars purchased from nurseries. Purchasing nursery grown bare root or container grown trees is likely to increase success in establishment. And nurseries often provide grafted trees of cultivars with good fruit characteristics.

Persimmons are pruned to support a strong branching structure that will support future fruiting. Once the tree structure is developed, only minor pruning for health and light penetration is required, earning them recognition as a low maintenance tree.

Persimmons do not require as much pest and disease management as many other fruit crops, but there are some potential issues. Insects such as webworms, bagworms, boring moths, and beetles can damage trees. Fruit drop can become messy, and dropped fruit are an open invitation to additional pests and wildlife.

Interestingly, native persimmons are a larval host plant for the Luna moth (*Actias luna*) and Hickory Horndevil Regal moth (*Citheronia regalis*). While the immature larval stages feed on foliage, the adult moths do not feed on the nectar of persimmon or any of its other host plants including walnuts, butternuts, hickories, sweetgum, and sumacs.

Harvesting and Storing

Persimmon flavor is an interesting topic that varies by species. Most Asian persimmons do not have a high level of astringency, but native persimmons are very astringent when immature. It is commonly stated that fruit are sweeter and lower in astringency after frost. It is really more that fruit require a long time to ripen, so in late fall, after frost has usually occurred, the fruit are ripe and sweet because they are fully mature. Persimmon fruit becomes soft when ripe, and the descriptions of flavor profile varies from apricot, dried peach, guava jam, roasted pumpkin, to spice or nuts. Harvest must be timed accurately to appreciate the flavor.

Inside the fruit, the flesh surrounds several flat, dark seeds that resemble guitar picks. There is even local lore suggesting the shape of embryos inside persimmon seeds can predict the severity of winter (see WVLT 2022 story linked below) Cutting ripe fruit can be difficult due to its soft texture. To access the flesh, the cap and stem are removed, and the fruit is pulled apart before it is sent through a food mill or sieve to collect the pulp and separate it from the skin and seeds.

Persimmon fruit can be used in many ways. Asian persimmons are typically harvested for fresh market, while native persimmon fruit can be sold fresh but are more common in other products. Fruit can be used in puddings, cookies, cakes, custards, ice creams, sherbets, and preserves. It can be dried or dehydrated, which lowers astringency.

Resources Used and Additional Information

Kaiser, C. and M. Ernst. (2017). American Persimmon. CCD-CP-1. Lexington, KY: Center for Crop Diversification, University of Kentucky College of Agriculture, Food and Environment. https://ccd.uky.edu/sites/default/files/2024-11/ccd-cp-001_american-persimmon.pdf

Rick, Pat. (2018). History of the Persimmon Tree. tytyga.com/History-of-Persimmon-Trees-a/374.htm.

Diospyros virginiana. North Carolina Extension Gardener Plant Toolbox. plants.ces.ncsu.edu/plants/diospyros-virginiana/

Westerfield, B, Horton, D.L., and Krewer, G.W. (2022). Home garden persimmons. UGA extension.uga.edu/publications/detail.html?number=C784&title=home-garden-persimmons

Knauss, N., and J. Marquesen. (2022). Native persimmons in the garden and kitchen. Penn State Extension. extension.psu.edu/native-persimmon-in-the-garden-and-the-kitchen

Sarkhosh, A., P. Anderson, and D. Huff. (2020). Japanese Persimmon Cultivars in Florida. UF IFAS. edis.ifas.ufl.edu/publication/MG242

Could persimmon seeds give glimpse into winter? (2022) WVLT, Knoxville, TN. wvlt.tv/2022/11/14/could-persimmon-seeds-give-glimpse-into-winter-ahead/



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