

## American Persimmon

### Introduction

The American or common persimmon, *Diospyros virginiana*, is a slow growing, moderately sized tree native to Kentucky. Fruit are about 1 to 2 inches in diameter. Cultivated varieties may have improved quality and lose their astringency earlier in the fall. The golden orange to red fruit are very sweet when fully ripened. The Asian or Japanese persimmon (*Diospyros kaki*) is not hardy in Kentucky.

### Marketing and Market Outlook

The Asian persimmon is more commonly grown commercially in the U.S.; however, efforts in some states, including Indiana, have been underway to commercialize the American persimmon. These trees are normally sold by nurseries that specialize in less common fruits and nuts.

Fruit are usually marketed fresh and persimmons are occasionally found at farmers markets across Kentucky. The “slow foods movement” has increased interest in this crop. The fruit can also be processed and the pulp sold as a frozen product. Value-added products include persimmon puddings, cookies, cakes, custards, ice creams, sherbets, and preserves.

### Production Considerations

#### *Site selection, planting, and maintenance*

Persimmon is a very adaptable tree, surviving on everything from poor sites to river bottoms, and from partial shade to full sun. However, for best growth and fruit production, moist, well-drained soils, and



sunny sites are best. Avoid waterlogged soils, as well as those that are droughty. Production on elevated sites permits a longer freeze-free production period.

Persimmons are normally dioecious; that is, trees produce either male or female flowers on separate trees. These self-infertile trees will require cross pollination with another variety to produce fruit. There is a 90-chromosome American persimmon that is native to the northern U.S. and a 60-chromosome type that is native to Kentucky and the southern U.S. Most of the named varieties are of the 90-chromosome type. When named varieties of the 90-chromosome type are grown in Kentucky and are pollinated by the 60-chromosome type, the seeds abort and many of the fruit are seedless or have few seeds. A few American persimmons such as ‘Meader’ are self-fruitful and will set seedless fruit.

Persimmon can be propagated from seeds, cuttings, suckers, and grafts. Plants can be easily produced from seed after a 3-month period of seed stratification. Seedlings that are one to two years old may be transplanted to the orchard. To ensure high quality plants and



fruit, however, it is best to plant grafted or budded trees. Persimmon has a long taproot that can make transplanting more difficult. Young plants should be well-watered to aid in establishment; mature trees are somewhat drought-tolerant. Persimmon trees, which are pruned to an open center or modified central leader, require little pruning once they reach bearing size.

#### *Pest management*

Persimmon is generally considered free of most pests and diseases, although a few problems have been known to occur. Insect pests include psyllid, persimmon borer, fall webworm, bagworm, hickory horned devil, and twig girdler. The ambrosia beetle is a new pest that is moving into the state and could be a problem, particularly on weak trees. There is interest in varieties that have leaf spot resistance. Persimmon wilt, a fungal disease, has killed a number of trees in the south, including Tennessee; it may also be present in Kentucky.

#### *Harvest and storage*

Persimmon trees propagated from seeds begin producing a crop in about 4 to 9 years, while grafted trees can begin fruiting 3 years after planting. Fruit is hand-picked with care to maintain the cap on the fruit if it is to be marketed fresh. Bearing trees may yield 35 to 75 pounds of fresh fruit per tree.

Mature fruit may be yellow, orange, bright red, or blue in color. Fruit becomes soft and mushy while ripening. Persimmons are very astringent due to the presence of alum when not fully ripe. It is popularly believed that a hard frost is required to sweeten the fruit, but actually persimmons just require a long period for ripening. Edible fruits often hang on the trees through fall, and even into winter, unaffected by freezing temperatures.

Persimmons can be stored just above freezing for approximately 3 months. Ripe fruit that is still astringent can be treated with ethylene or frozen to eliminate the astringency. Fruit of most varieties contain black flecks in the pulp, which are not attractive in the processed product. 'Meader,' 'Killen,' 'Morris Burton,' and 'C-100' are varieties that contain few or no black specks.

#### *Labor requirements*

Labor needs per acre are approximately 60 hours for production, 140 hours for harvest, and 60 hours for packing/grading.

### **Economic Considerations**

Initial investments include land preparation, the purchase of seedlings or grafted trees, and possibly the installation of an irrigation system.

Establishment costs over 3 years for one acre of persimmons is estimated at \$7,200. These costs presume 300 trees per acre at a cost of \$18 per tree. Production costs after Year 4 are estimated at \$1,100 per acre, with harvest and marketing costs at \$2,050 per acre. Presuming gross returns of \$4,125 per acre, returns to land, capital, and management would be approximately \$725 per acre.

### **More Information**

- Common Persimmon (U.S. Forest Service, North Eastern Area)  
[http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/diospyros/virginiana.htm](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/diospyros/virginiana.htm)
- Common Persimmon Plant Guide (PLANTS Database, USDA NRCS, 2006)  
[http://plants.usda.gov/plantguide/pdf/pg\\_divi5.pdf](http://plants.usda.gov/plantguide/pdf/pg_divi5.pdf)
- Persimmon Production (ATTRA, 2001)  
<http://attra.ncat.org/attra-pub/persimmon.html>