# Persimmon (Diospyros kaki)

Oriental Persimmon, Japanese Persimmon or Kaki Persimmon



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#### **Persimmon**

- Moderate to high commercial potential
- Direct-to-consumer potential, \$1.50 3.00/fruit
- Good potential for direct marketing and possibly exports (e.g., Canada)
- Value-added baked goods (cookies, cakes, etc.), custards, ice cream, preserves, puddings, etc.





#### **Varieties**

#### Classification

- -Astringent: A taste that puckers the mouth, numbs the tongue, and constricts the throat. This taste is caused by astringent substances such as tannins. Fruit can be eaten when are soft.
- **-Nonastringent:** Fruit lose astringency while still hard. Fruit can be eaten when are hard or soft.

Resource: Japanese
Persimmon Cultivars in
Florida
https://edis.ifas.ufl.edu/
pdf/MG/MG24200.pdf





#### **Varieties**

#### Fruit shape



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#### **Varieties**

What variety and how many different varieties should I plant?

<u>Nonastringent</u>: 'Izu', early season; 'Jiro' and 'Matsumoto Wase Fuyu', mid-season; and 'Fuyu', late season.

<u>Astringent</u>: 'Nishumura Wase', 'Saijo', 'Tanenashi', 'Yamato Hyakume', 'Sheng', 'Ormond', 'Hachiya', etc.





Resource: Japanese Persimmon Cultivars in Florida https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf

## 'Fuyu'

- Fruit size is medium
- Soluble solids average 18%
- Fruit shape is oblate
- Harvest season is late October thru November



Resource: Japanese Persimmon Cultivars in Florida
<a href="https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf">https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf</a>

Photo: Ali Sarkhosh

#### 'Jiro'

- Fruit size is medium-large
- Soluble solids average 17%
- Fruit shape is oblate
- Harvest season is late September thru mid-November



Resource: Japanese Persimmon Cultivars in Florida <a href="https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf">https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf</a>
Photo: Edible Landscaping LLC

### 'Matsumoto Wase Fuyu'

- Produces heavy clustered crops
- Soluble solids average 17%
- Fruit are medium in size and oblate in shape.



Resource: Japanese Persimmon Cultivars in Florida <a href="https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf">https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf</a>
Photo: Edible Landscaping LLC

## 'Hachiya'

- Fruit size is medium-large
- Soluble solids average 17 to 19%
- Remains astringent until fully ripened and soft
- Mostly used for drying in Japan

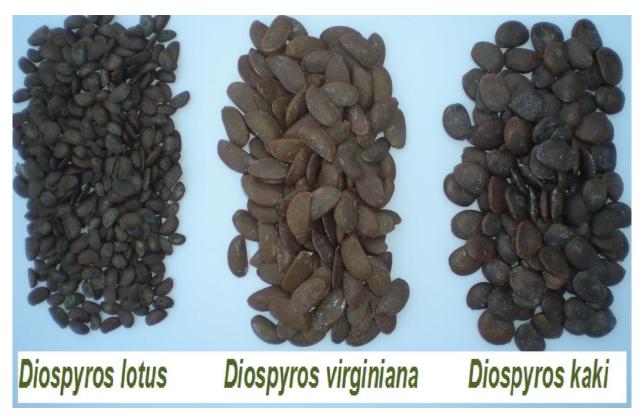


Resource: Japanese Persimmon Cultivars in Florida <a href="https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf">https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf</a>

Photo: Ali Sarkhosh

#### Rootstock

 American persimmon, D. virginiana, is the recommended rootstock for southern states due to its adaptability to different soil types



Resource: Japanese Persimmon Cultural Practices in Florida <a href="https://edis.ifas.ufl.edu/pdf/HS/HS138900.pdf">https://edis.ifas.ufl.edu/pdf/HS/HS138900.pdf</a>

### Soil

- Wide range of soil types
- Deep well-drained soil (pH 6-7)
- Sensitive to salinity



### **Irrigation and Fertilizer**

- Frequent irrigation (2 to 4 times per week) is required after planting
- Fertilization plan with 3
   applications is recommended,
   with 50% applied in March and
   25% each in June and August
- NPK, 12-4-8 plus trace elements
- 1lb/tree in the first year, add 0.75 lb to the amount of year before



## **Planting**

- Bare-root trees from December through February
- Pot trees anytime during the year, March to May the best time





### **Tree Spacing**

• 15 ft (4.5 m) between trees and 20 ft (6 m) between rows



### **Training**

- Modified Central Leader
- Open-center or Vase
- Palmette

The goal is to have 4-6 well-spaced branches radiating from the trunk



Resource: Japanese Persimmon Cultural Practices in Florida https://edis.ifas.ufl.edu/pdf/HS/HS138900.pdf

### **Pruning**

 When the main structural branches are in place, some are lightly pruned and tipped each season to stimulate more branching, while others are left unpruned





**Resource: Japanese Persimmon Cultural Practices in Florida** 

https://edis.ifas.ufl.edu/pdf/HS/HS138900.pdf

## **Flowering**

 On current season's growth several weeks after vegetative bud break



### Flowering – Pollination

- Persimmons can set modest crops parthenocarpically (without fertilization)
- Pollinizer tree in the planting will provide maximum yield
- Ratio of 1:15 (pollinizer to main variety)
- Pollinizer 'Gailey' and 'Nishimura'



4/27/2023

Photo: Ali Sarkhosh

# **Fruit**







#### **Harvest and Postharvest**

- Varies by variety from August through December
- Firm, beginning in the yellow/orange phase through full color
- Clip the fruit from the tree to prevent damage to the fruit
- Shelf life can be prolonged to 2 months in 32 °F storage, and up to 6 months in controlled atmosphere conditions





### **Fruit Drop**

- Previous season crop load
- Pollination
- Water and nutrient excesses
- Lack of light infiltration into the canopy





#### **Diseases**

- Botryosphaeria canker
- Leaf and fruit spots
   (Cercospora, Alternaria,
   Gloeosporium)
- Persimmon wilt (Cephalosporium diospyri)

#### **Insect Pests**

- Scales
- Persimmon psylla
- Stinkbugs
- Tree borers
- Twig girdler
- Thrips
- Caterpillars

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# Challenges for Persimmon Production

- Low demand for astringent types
- Botryosphaeria is the major limitation
- Marketing and consumer education
- Risk of production due to fruiting season/competition from other states



#### Resources

- Japanese Persimmon Cultural Practices in Florida https://edis.ifas.ufl.edu/pdf/HS/HS138900.pdf
- Japanese Persimmon Cultivars in Florida https://edis.ifas.ufl.edu/pdf/MG/MG24200.pdf
- Sustainability Assessment of Fruit and Nut Crops in North Florida and North Central Florida <a href="https://edis.ifas.ufl.edu/publication/MG367">https://edis.ifas.ufl.edu/publication/MG367</a>

## **UF/IFAS EDIS EDIS Publication**



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