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# The Avocado

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**Scientific name:** *Persea americana* Miller

**Common names:** avocado, avocado-pear, aguacate (Spanish)

**Family:** Lauraceae

**Origin:** Avocados are indigenous to tropical America and three ecological races, Mexican, Guatemalan, and West Indian, are recognized.

**Distribution:** Avocados are grown in tropical and subtropical areas of the world. In Florida, commercial production is primarily in Dade and Collier Counties; however, small plantings and isolated trees are found in warm locations throughout the state.

**History:** Avocados have been cultivated in tropical America since pre-Columbian times. The first recorded importation into Florida was in 1833 and into California in 1856.

**Importance:** One of the important fruits in the American tropics, the avocado is grown commercially in many areas of the world including Mexico, Brazil, Australia, Israel, Chile, tropical Africa, California, and Florida.

## Description

**Tree:** A medium (30 ft; 9.1 m) to large (65 ft; 19.8 m) tree, the avocado tree is classified as an evergreen, although some varieties lose their leaves for a short time before flowering. The tree canopy ranges from low, dense and symmetrical to upright and asymmetrical. Limbs are easily broken by strong winds or heavy crop loads.

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**Leaves:** Leaves are 3 to 16 in. (7.6 to 40.6 cm) in length and variable in shape (elliptic, oval, lanceolate). They are often pubescent and reddish when young, becoming smooth, leathery, and dark green when mature.

**Inflorescence:** The many-flowered lateral inflorescences are borne in a pseudoterminal position. The central axis of the inflorescence terminates in a shoot. Flowers are perfect, yellowish green, and 3/8 to 1/2 in. (1 to 1.3 cm) in diameter.

**Fruit:** The fruit is a berry, consisting of a single large seed, surrounded by a buttery pulp. Fruit contain 3 to 30% oil (Florida varieties range from 3 to 15% oil). The skin is variable in thickness and texture. Fruit color at maturity is green, black, purple or reddish, depending on variety. Fruit shape ranges from spherical to pyriform, and weigh from a few ounces to 5 pounds (2.3 kg). The fruit does not generally ripen until it falls or is picked from the tree.

In Florida, the fruit is considered sufficiently mature for harvest when it reaches a specified calendar date and weight or size. The specific dates, weights, and sizes used to determine maturity vary by variety. An alternative method in some places (i.e., California) has been to harvest when the fruit contain a specified minimum oil content. However, this method has not proved useful for the varieties of avocados grown in Florida.

**Pollination:** Varieties are classified into A and B types according to the time of day when the female and male flower parts become reproductively functional (Table 1 on p. 2). New evidence indicates avocado flowers may be both self- and cross-pollinated under Florida conditions. Self-pollination occurs during the second flower opening when pollen is transferred to the stigma while cross-pollination may occur when female and male flowers from A and B type varieties open simultaneously.