

Table 1. Behavior of a Type A and Type B avocado flower.<sup>2</sup>

Day	Time	Flower type	
		A	B
1st day,	A.M.	Flower opens Stigma receptive	.....
	P.M.	Flower closed	Flower opens Stigma receptive
2nd day,	Night	Flower closed	Flower closed
	A.M.	Flower closed	Flower opens again Pollen sheds Stigma may or may not be receptive
	P.M.	Flower opens again Pollen sheds Stigma may or may not be receptive	Flower closed

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<sup>2</sup>, Flowers not pollinated are shed.

Self-pollination appears to be primarily caused by wind, whereas cross-pollination may be effected by large flying insects such as bees and wasps.

Varieties vary in the degree of self- or cross-pollination necessary for fruit set. Some varieties, such as 'Waldin', 'Lula', and 'Taylor' fruit well in solid plantings. Others, such as 'Pollock' and 'Booth 8' (both B types) do not, and it is probably advantageous to plant them in rows alternating with other varieties (A types) which bloom simultaneously to facilitate adequate pollination.

### Varieties

Avocado varieties are classified in 3 groups, known as the West Indian, Guatemalan and Mexican "races", with distinguishing characteristics summarized in Table 2.

Early varieties are usually of West Indian and Mexican origin, whereas midseason and late varieties are hybrids between the races and have intermediate characters. Some characteristics of Florida avocado varieties are summarized in Table 3 (on p. 4).

### Climate

West Indian and some hybrid varieties are best adapted to a lowland tropical climate and relatively frost-free areas of the subtropics. Mexican varieties are more cold-tolerant and not well adapted to lowland tropical conditions. Guatemalan x Mexican hybrids are generally more cold-tolerant than West Indian x Guatemalan hybrid varieties.

Some of the more cold-tolerant varieties in Florida include 'Brogdon', 'Gainesville', 'Mexicola', and 'Winter Mexican'. However, it may be difficult to find plants of these varieties. Moderately cold-tolerant types include 'Tonnage', 'Choquette', 'Hall', 'Lula', 'Taylor', 'Monroe', and 'Brookslate'. Varieties with little cold-tolerance include 'Simmonds', 'Pollock', 'Dupuis', 'Nadir', 'Hardee', and 'Waldin'.

### Propagation

Most avocado varieties do not come true from seed and must be propagated vegetatively. Cleft grafting is the preferred method of propagation in Florida, although veneer grafting is also used.