



'Angie' Mango for South Florida

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'Angie' was selected for Fairchild Tropical Botanic Garden as a home garden and estate agriculture cultivar in South Florida due to its compact growth habit, disease tolerance, and overall fruit quality. The fruit are 400 g, oblong, and saffron yellow with Indian orange blush on the sun-exposed shoulders. The skin is smooth and without visible lenticels. The flesh is tangerine orange and without fiber. The flavor is classified in the 'Alphonso' class of mangos with a deep sweetness and sophisticated profile rich in apricot. The disease tolerance is excellent and given its early season, it often can be harvested before the rainy season in South Florida. The tree is dwarf and highly manageable with annual pruning. Size can be maintained at or below 3 m with consistent production. In South Florida, 'Angie' keeps increasing in popularity because of its small size and potential for high production per unit land area. In places like Florida, "estate" type agriculture involves relatively small plantations, with production destined for specialized ethnic markets.

'Angie' is originally from Florida. It is from a seedling of unknown origin, planted in 1988 at Four Fillies Farm at Fairchild Tropical Botanic Garden, Coral Gables, FL. In 2006, Fairchild Tropical Botanic Garden named the cultivar after Angie Whitman, wife of Mr. Bill Whitman who was a Garden trustee.

Description

The tree (Fig. 1) is small in size, forming a round canopy. Trees in South Florida reach a height of 7–12 ft with a spread of 7 ft, but with annual pruning they can be kept smaller. The tree flushes once a year, and has small internodes and stems compared with most cultivars. The leaves are often twisted in a characteristic manner. Trees are easy to handle and highly productive, they can be kept at 8 ft, while maintaining fruiting and tree health.

Trees begin to bloom and produce fruit 3 years after planting, either in the field or in a container. In South Florida, trees often have yellowish leaves due to iron deficiency, which is easy to control with applications of iron chelate. Flowering occurs over a fairly long period in the winter, which can lead to multiple crops.

Disease tolerance is excellent. Given its early season, 'Angie' can often be harvested before the rainy season. The tree is easy to grow if nitrogen is kept low and the tree is not over-watered or grown in soils prone to flooding or with a high water table.

The fruit (Fig. 2) have a 400 g average weight, with a rounded base, a stool stem inserted obliquely in a level manner, a rounded apex with a small lateral beak, and a slightly undulating surface. The fruit is firm, with a soft texture and few lenticels. The flesh is orange-yellow, firm and melting, with very little fiber and a lot of juice.

The flavor of 'Angie' resembles that of 'Alphonso' mango and it has been gaining popularity because of its good quality. This fruit is characterized by subtle aromas of spices with a slight smell of peach, cucumber, and wood, and fine aroma of honeysuckle

and an interesting aroma of pineapple. The flavor is excellent—rich and aromatic—with a strong component of peach and some cantaloupe and Cucurbitaceous relatives, plus strong accents of pineapple and papaya. The after taste is very low in acidity, astringency, and bitterness. It has a creamy smooth texture with a Brix of 22% and a long shelf-life in storage. The best flavor is obtained when the fruit is tree ripened, but it maintains a good flavor after proper storage. It is a fruit with high overall quality.

It is a polyembryonic cultivar. The seed is 3.8 in. long, 2 in. wide, and 1.4 in. thick.

The selection of 'Angie' was based on trying to find a small sized mango with disease tolerance, productivity, and good fruit quality. Today trees have been propagated by grafting from the mother tree at the Fairchild Farm in Homestead, FL.



Fig 1. 'Angie' tree.

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Fig 2. 'Angie' fruit.

MATURITY DATE FOR HARVESTING. Fruit production is between May and July in South Florida.

Detailed Description

TREE

Size: 7–12 ft in height

Vigor: low.

Figure: compact, rounded habit

Productivity: very good, 310 kilo per mature tree

Regularity of bearing: regular bearing

LEAVES (IPGRI, 2006)

Size: very large as compared with other mango varieties

Average length—17 cm

Average width—8 cm

Shape: Lanceolate

Tip—acute, with some twisting

Base—broad angular

Cross-section—incurved

Pubescence—none

Color:

Upwardly disposed surface—pea green (144A) (Royal Horticultural Society, 2015)

Downwardly disposed surface—Typically same as upper or with a slight more yellow tint

Marginal form: generally smooth to slightly wavy

Petiole:

Length—4 cm to 5 cm

Diameter—0.3 cm to 0.4 cm

Color—gray

Young leaves:

Color—yellow-green (154A) (Royal Horticultural Society, 2015)

FLOWERS. Produced on terminal inflorescences with thousands of individual flowers that typically set less than 1.5% in natural

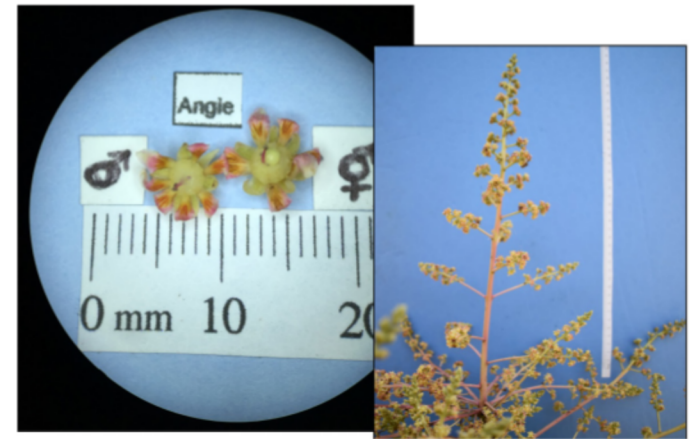


Fig 3. 'Angie' flowers and inflorescence.

pollination. Flowers are shown in Fig. 3. 'Angie' has high percentage of hermaphrodite flowers (50% to 70%) compared with other cultivars.

Petals and sepals—both male and hermaphrodite flowers have 5 petals and sepals

Color—white to cream to red with maturity (Ledesma et al., 2018).

Flower buds:

Size—2.5 mm average

Surface texture—Firm

Flowers: Multiple flower inflorescences with thousands of flowers each.

Date of bloom—mid-December to early February

Size—generally 2.2 mm, when full open – 4.3 mm

Petals and sepals: 5 petals and sepals

Color—white to cream to red with maturity

Petiole and peduncle: small and many-branched

Color—pink, red or green

Anther: five; color: color

Ovary: single color, white/red (stigma)

FRUIT. 'Angie' has a fruit size of 4.8 in length, 3.9 in width, and 3 in thickness with an oblong shape. The fruit is firm and colorful. The predominant color is saffron yellow with Indian orange blush (30A). (Royal Horticultural Society, 2015). The fruit are ripe for harvesting and shipment approximately May through June in South Florida.

Size (cm):

Typical average length—4.8 in

Typical average diameter—3.9 in

Typical average: thickness—3 in

Typical average weight—400 g

Shape: Oblong to oval with a slightly undulating skin surface, a rounded base, slender stem with a squared insertion, no cavity and a bluntly pointed apex with a small lateral beak.

Shape—oblong oval

Surface—slightly wavy

Appendix—lightly dotted

Peak—small; side

Shape—bluntly pointed

Stem:

Peduncle—hard; cylindrical

Size—10 cm–16 cm***query: should this be length**?

Diameter—0.3 cm

Color—brown to gray

Skin:

Thickness—thin, tender and adhesive

Smoothness—moderately undulating

Lenticels—few, small, yellow lenticels

Skin color—predominant color is saffron yellow with Indian orange blush (30A). (RHS, 2015):

Flesh: firm, melting and juicy with very little fiber

Flesh color—deep yellow to orange

Fiber—fiber

Flavor—excellent

Brix—22 °Brix

Texture—firm and slightly presence of fiber

Resistance to disease: good tolerance to anthracnose (*Colletotrichum gloeosporioides*); moderate susceptibility to powdery mildew (*Oidium mangiferae*)

Harvesting: by hand

Sap burn: sap burn not a problem

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