

SUB-TROPICAL FRUITS IN CENTRAL FLORIDA

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Horticulturists generally consider that portion of Florida south of Palm Beach on the East Coast and Bradenton on the West Coast including some of the Everglades section between, as the most tropical part of the State. It is in this area that most of the commercial plantings of tropical and subtropical fruits are located. This paper deals with several of these fruits grown largely as garden specimens or oddities in the Central Florida area considerably north of that described above (specifically in southern Marion County, Lake and Volusia counties, and the Orlando-Sanford area).

No attempt is made in this paper to give botanical names and descriptions of the plants discussed since this information is adequately covered in the available literature.

Protection afforded by elevation, bodies of water, trees and other natural or artificial barriers to extremes of cold are the sites upon which most of the tropical and subtropical fruits are grown in this area. Indeed, locations on the protected sides of buildings, and often the heat from chimneys suffice to preserve specimens during many winters. Other forms of protection vary from simple cloth or paper covering to keep frost from settling on plants to such heating devices as wood or coke heaters, fuel oil heaters, lanterns and electric light bulbs which are all used to protect small plantings and prized specimens from short periods of low temperatures which would otherwise injure or kill these tender plants. Despite the sometimes necessary protection, gardeners are justified in trying to cultivate these plants because of the pleasure they get, the small amount of capital involved, and the rapid recovery of most species following adverse weather conditions.

In the Volusia County section between the rivers and ocean it is sufficiently warm that most of the fruits mentioned herein do fairly well. When winter colds occasionally nip them back they generally come back rapidly in the spring. In Lake, Orange and Seminole Counties hills and lakes form important barriers to cold.

Freedom from temperatures below freezing, ample soil moisture, proper soil drainage, good fertilization and pest control practices are all necessary for the successful growing of the tropical and subtropical fruits in Central Florida. Citrus or vegetable fertilizers, with the minor elements included as necessary, are most commonly used in the area and heavy mulches are frequently used.

Avocados—Avocados fruit quite well in most years, except following winters when they have been severely injured. Among the avocados, seedlings (mostly of Trapp) are frequently grown in home gardens. Among the most successful of the grafted varieties is the Gottfried, a Mexican variety. It is cold resistant, a vigorous grower, relatively resistant to anthracnose, and the fruit is of fair quality, maturing in July, August and September. A Mexican-Guatemalan cross often found in the area is the Lulu which matures its fruit in October and November. It is quite cold tolerant but scabs badly unless adequate protective sprays are used. Of the Guatemalan varieties most commonly found are Booth 7, Nabal, and Taylor which mature from December to February. The Yon is grown to a limited extent. It is relatively cold resistant and produces a large fruit of excellent quality. In this area, however, it is not a regular producer.

There are one or two small commercial plantings in the Lake County area and in these care has been taken to use both group A and B type trees; but in towns with miscellaneous plantings of a few trees in the same neighborhood no effort is generally made to consider planting in groups.

Of considerable value to the dooryard grower of avocados is the stunt of scoring avocado trees early in October to induce blooming of dooryard seedling trees. It is quite effective in making seedling trees start bearing. Scoring is accomplished by inserting a knife blade through the outer bark and cambium layers and making one continuous cut around the trunk. The tree is thus temporarily girdled although no bark is removed.

Mangos—Not since the winter of 1940 has this area generally received a severe freeze. In that year temperatures in the low 20's were common in widespread areas. Many of the

tropical and subtropical fruit specimens found in the area were planted after that date. Among the most popular of these is the mango which is a great favorite of gardeners because of its tropical appearance and delicious fruit. It may be found in protected areas scattered throughout Central Florida. However, it should be pointed out that numerous trees antedating 1940 can be found at the United States Department of Agriculture's Subtropical Fruit Laboratory grounds at Orlando and elsewhere. At Tavares I know of a specimen more than 25 years old that produces an abundance of fruit every year. One grower near Sanford says that the sale of fruit from one seedling tree in his yard has paid his taxes for many years. Among the most common of the mangos of the area is the so-called turpentine seedling which is quite cold tolerant and produces a fruit of fair quality and varying in stringiness from severe to almost none. The Haden is the most widely grown of the better kinds with gardeners also trying Zill, Kent, Springfields, Irwin, Julie and others with varying degrees of success. Persistence in protecting the trees from cold is the key-stone to successful growing of mangos in the area. Anthracnose is also a serious factor and requires copper sprays for control and the production of unblemished fruit. One general complaint is that mangos fail to develop bright colored fruit. There is also a tendency for the fruit to remain green and to ripen unevenly. Internal quality usually is inferior when compared to that of fruit from South Florida but most gardeners find it fairly acceptable.

Papayas—Papayas are grown throughout the area and small commercial patches are not uncommon. Thirty-two degrees is the critical temperature for the fruit and tender parts of the plant. Trees are often killed back by winter temperatures but if the trunk is not severely injured they are back in production the following year. Plantings are frequently fired on cold nights and gardeners often mound the trees in the same fashion that young citrus trees are mounded to protect the trunk a foot or so above the ground from severe cold damage. In Central Florida there is not much effort to plant by variety. Betty and Blue Stem Solo were two good varieties formerly widely planted but it is difficult to find them now. The U. S. Department of Agriculture's Subtropical Station at Orlando maintains pure

strains of several varieties but they find very little interest among growers to try to propagate and perpetuate them even though they are good varieties. A method of vegetative propagation is apparently needed. Whitefly, papaya fruit fly, and nematodes are the major pests of papayas in the area.

Guavas—Guavas are found generally throughout the area. The most widely found species are the Cattley (Strawberry) and the Common. Cattleys are favorites because of their attractive foliage in landscape settings as well as for their fruit. Imported varieties such as Red Indian, also do well. Guavas in protected areas successfully get through most winters while those in exposed locations frequently are killed back but come out again from the roots or larger branches with the return of warm weather.

Lychees—Lychees are widely planted in warmer locations of Central Florida. The trees are quite ornamental as well as a source of delicious fruit. There are several small commercial plantings in the area but individual trees are also being grown by many people as garden specimens. They are more cold tolerant than mangos; probably about equivalent to Temple oranges in this respect. They are doing well around the edges of lakes bordering citrus groves where the soil would be too damp for citrus and where the lakes afford cold protection. There is considerable small scale planting activity of lychees in the area south of Clermont in Lake County.

Longan—The longan is seen occasionally in Central Florida. It is a close relative of the lychee but the fruit is generally inferior to the lychee in quality. It is more cold resistant than the lychee.

Pineapples—Pineapples are found in many gardens throughout Central Florida. There is one planting of two acres of Cayenne and Abakka varieties. Like many other tropical and subtropical plants pineapples are great favorites among Northerners who like to grow them for their tropical appearance, their interesting fruit habit and their ease of culture. Some gardeners simply plant the tops of fruit they purchased in grocery stores while others more interested in uniformity and variety buy slips for planting stock.

Bananas—Near Umatilla in north Lake County is a planting of about 4 acres of Cavendish bananas. They are located on the south side of Lake Pearl and have been there

for many years. The fruit is sold through a roadside stand built by the owners mainly for marketing this fruit. Small plantings of Cavendish may be found throughout the area. Lady Fingers may be found around Apopka and Horse bananas in the Winter Park and Maitland areas as well as in other protected locations on the moister soils of Central Florida.

Loquats—Loquats are popular trees in Central Florida and may be found in dooryards and gardens throughout the area. They stand most of the winters here very well and are not uncommon even in the Ocala area. Fruit quality is quite variable because most trees in the area are seedlings.

Surinam cherry—Surinam cherry does well in the area and is widely planted as an ornamental hedge. The plant is quite resistant to cold. The fruit, which is eaten out of hand or made into jellies and sherbets, is of variable quality because of seedling variation.

Mysore—The Mysore or tropical black raspberry, is only now being planted in Central Florida. To my knowledge there are no plantings old enough upon which we could base an opinion as to its cold tolerance, fruiting habits or other characteristics in the area. Several young plantings have been made in the Orlando area.

White Sapotes—White Sapotes may be found here and there throughout Central Florida. A peculiar leaf pattern, similar to what might be caused by a mineral deficiency of some sort, mars the appearance of trees in many locations. Specimens of the woolly-leaved white sapote, which is similar to the common white sapote except in foliage, has not been observed to exhibit this foliage symptom. It produces somewhat larger fruit than the common sapote.

Sugar Apple—The sugar apple is not widely grown in Central Florida, although specimens can be found here and there. I know of several trees in a planting at Eustis that have

been fruiting for over ten years. They are growing in an area protected by a large lake and a good slope. Sugar apples are the only members of the Annona group that I know of in the area.

Pomegranate—Pomegranate trees may be found in rather widely scattered parts of Central Florida. The trees usually fruit quite well in this part of the State, although the fruit is subject to fungal attack unless sprayed with bordeaux. Pomegranate is grown only to a very limited extent.

Feijoa—Feijoa, or Pineapple Guava, is more widely grown in Central Florida as an ornamental than as fruit tree. It tolerates low temperatures and produces a fruit of good quality which is used much like that of the common guava. Some trees bloom well but fail to fruit. This is thought to be due to faulty pollination.

Canistel—Canistel, or Egg-fruit (so called because the fruit resembles an egg yolk) is not widely grown in Central Florida. There is a tree on the USDA Subtropical Fruit Experiment Station at Orlando. No doubt the tree could be grown more generally in the better protected locations of the area.

Downey Myrtle—Downey Myrtle or Hill Gooseberry is rather widely grown in Central Florida. The fruit makes good pies and jams. The bush is used as an attractive ornamental in dooryard plantings in Central Florida.

Jaboticaba—The jaboticaba is a low tree producing a grape like fruit and which may be found growing to a very limited extent in Central Florida. Trees are fruiting at Orlando and this plant probably deserves wider use in the entire area in protected places. They apparently have about the same temperature limitations as the lychee.

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SUB-TROPICAL FRUIT INDUSTRY IN EGYPT

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Grapes, dates, pomegranates, apricots, olives, and figs have been well-known fruits

since the Pharaohs. The tide of such industry has been closely associated with nation's stability and prosperity. From 1920 to 1933 the industry developed commercially from 35,000 to 53,000 acres and reached 98,000 in 1949. The acreages and distribution through-