

## REPORT OF THE SUBTROPICAL FRUIT VARIETIES COMMITTEE

The California Avocado Society has maintained a Subtropical Fruits Variety Committee over the years because a large proportion of the membership grows some minor subtropical fruit either for family use or for supplemental income. For this reason it is of interest to keep up-to-date on those species which can be grown in the avocado belt of Southern California.

The writer will summarize the situation regarding these minor subtropicals, as he sees it, at this time.

**CAROE:** This is a handsome, evergreen tree which has a lower cold tolerance and higher heat tolerance than avocado and has less than 50% of the water requirement. It bears heavy crops of palatable nutritious fruit which has a good immediate market. The going price of the fruit is about in the citrus class. There are no commercial, producing orchards in California at present but a few sizable plantings have been made in the last few years. Tolerant to *Phytophthora Cinnamomi*.

**GUAVA:** There are many small trees and shrubs which go by this name but are not true Guavas, so in this paragraph reference is made to Common Guava (*Psidium Guajaval*). This is found in most tropical or subtropical regions of the world and is fairly common in Southern California. It will grow and produce well in most locations suitable to avocados. This is a dwarf-type tree, reaching six to eight feet in maturity. It is attractive and evergreen. The fruit is quite palatable and nutritious and has some real dietary value. As far as known to the writer, there are no commercial plantings in California. These trees are largely planted as ornamentals and the fruit is used for the family table.

**STRAWBERRY GUAVA:** This is not a true guava but is properly the Cattley. The popular name derives from the small, red (or yellow) fruit, somewhat comparable in size to a large strawberry. The tree is attractive, evergreen and distinctly dwarfed. It grows easily and well in avocado orchard situations, having similar climate and water requirements. This fruit is rarely seen in the markets although there have been a few very small commercial operations in Southern California.

**PINEAPPLE GUAVA:** This is another actual misnomer and is properly the FEIJOA.

All of the observations concerning the strawberry guava, apply here, except that Feijoa is distinctly more cold tolerant than avocado. The fruit is tasty fresh or preserved. There are no orchards or commercial production in California known to the writer and the fruit is not found in the markets.

**LOQUAT:** This is a fine, vigorous tropical-looking tree which attains good size (30' to 40' high) under favorable conditions. The large, deeply-veined leaves are very ornamental. This tree grows well in avocado-orchard locations but is much more cold hardy, i.e. will stand 8 to 10 degrees more frost. The fruit is excellent fresh or preserved and has good sale in the market, if packaged well. However, for some reason, the orchards have practically all disappeared. The only one which the author knows is a 12 acre planting

some thirty years old here in Vista and it is rapidly diminishing due to subdivision-itis. In any event, this is an excellent tree for family fruit for any avocado grower.

LYCHEE: This is a beautiful, ornamental tree with an outstanding fruit. It will prosper in the avocado belt as far as water and temperature are concerned but for some reason, as yet unknown to the experts, it is difficult to grow. Many, many trees have been planted to a very few that have lived. Those which have lived beyond the first three years seem to have come along very well. There is a small orchard of old trees in El Cajón that bears very well and is really a sight at harvest time as the fruit looks like fine, fat strawberries. The writer has a good healthy young tree, about six feet tall which started bearing three years ago. There is no commercial production in California and there are no orchards, aside from the 10-12 tree group in El Cajón. It is quite possible that the knack of growing the Lychee in California will be worked out some day and a commercial enterprise will develop. The appropriate temperature and water requirements are available here and there is a market at luxury prices.

MACADAMIA: A fine looking, evergreen tree which produces a nut which is universally acclaimed as outstanding. Native to Australia (subtropical east central coast) and a real commercial item in Hawaii. Similar cold and heat tolerance to avocado. Water requirements equal or greater than avocado. Market price of fruit higher than avocado. No commercial plantings in production yet in California. Many young orchards have been set out. A society has been in existence since November of 1954 and it has built up a membership of over 300. The function of the society has been the dissemination of accurate information on macadamia. Field meetings, annual institute, a yearbook and a general information bulletin (revised) are some of its activities. Tolerant to Phytophthora C.

MANGO: This tree can be grown in the avocado belt but only rarely does it attain a height of ten to twelve feet. Our climate is just not tropical enough for mango to grow normally. In the tropics it is a great, flourishing tree thirty to forty feet tall and with a similar spread. For those people who are collectors of unusual, fruit bearing trees, mangos are worth the trouble and if the variety is carefully selected one can get some fine fruit. But it's a struggle. Mango has less cold tolerance than Fuerte avocado. Capt. L. L. Bucklew of Encinitas has made a more thorough study and field trial of mango than anyone in California, as far as this writer knows. There are no orchards, no commercial production in California and little likelihood of it.

PAPAYA: This is an attractive, tree-like plant which will attain ten to twelve feet in height if weather permits. The fruit is melon-like, delicious and has special nutritive qualities. It can be grown in the warmest locations of our avocado belt. It is quite unhappy if the temperature gets below 40°. Its water requirements are similar to avocado. IF one is a real papaya fan, it is worth the trouble to try growing this fruit. The writer has seen instances where it has been successful for a time. There was a planting near Santa Ana where a grower produced some commercial crops for a time. Generally speaking, there are very few producing papaya trees in Southern California, no orchards or commercial production.

PASSION-FRUIT: This is an ornamental, fruit-bearing, sub-tropical vine. It bears heavily an egg-shaped, dark purple fruit. There is also a yellow type but it is harder to grow and

the juice is not as sweet. This plant grows readily in the warmer areas. It is less frost tolerant than Fuerte avocado. The passion fruit has some market in the fresh form but has its best commercial outlet as juice. There is some commercial production in California but only a few acres. The only commercial planting known to the writer is here in Vista and the production all goes to a soft drink bottling concern. This is an attractive vine which grows readily in the avocado-belt; it has a beautiful flower and the juice gives a wonderful flavor to mixed-fruit drinks.

SAPOTE: A handsome evergreen tree which attains substantial size over the years, 30 to 40 feet under good conditions. The fruit is found delicious by many people. It is certainly nutritious and has some very excellent dietary qualities. The only commercial orchard known to the writer was here in Vista but has succumbed to the bulldozer. The fruit has a definite customer appeal and some individuals are marketing the fruit at excellent prices. The tree is somewhat more cold tolerant than avocado and has similar water requirements. Resistance to avocado root rot is unknown to the writer.

Some other, less known, but attractive evergreen trees and shrubs which produce appetizing fruit and can be grown with similar cultural care to avocado are:

Surinam Cherry (Pitanga)

Natal Plum

Rose Apple

It is planned to organize a field trip in the fall (when the fruit is on) to cover as many as possible of these various species enumerated herein.

WELLS W. MILLER, Chairman

#### EDITOR'S NOTE

More detailed descriptions for several of the minor subtropical fruits will be found in previous reports of this committee and in the following articles in the Yearbooks of the California Avocado Society:

Carob Investigations; Report of Progress. J. Eliot Coit; 1960-61.

Check-List of Varieties of Certain Subtropical Fruits. J. Eliot Coit, 1956-43.

Cherimoya, Hand Pollination. C. A. Schroeder, 1947-67.

Cherimoyas, Sapotes, and Guavas in California. C. A. Schroeder. 1956-49.

Comparative Resistance to Cold of Subtropicals. R. W. Hodgson and C. A. Schroeder, 1947-67.

The Kei Apple. C. A. Schroeder, 1947-71.

The Lychee—With Remarks Concerning its Status in California. W. B. Storey, 1956-57.

The Mango in California. L. L. Bucklew, 1956-68.

Progress Report on the Macadamia. W. B. Storey, 1959-67.

Subtropical Fruit Varieties (Illustrated). C. A. Schroeder, 1953-54.-53.