New Fruit Varieties for Southern Florida and Other Warm Regions

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The Kohala longan (*Euphoria longana*), the Haitian star-apple (*Chrysophyllum cainito*), the Seedless Cuban sugar apple (*Annona squamosa*) and the Seedless Indonesian guava (*Psidium guajava*) are four new varieties of fruit for southern Florida and other warm regions.

Kohala Longan

Kohala, an improved variety of longan, was introduced into southern Florida in 1954. It first bore here in 1958, producing large, sweet aromatic fruit with a spicy flavor. The small seed is about the size of the chicken-tongue seed of the lychee (*Litchi chinensis*). The Kohala, a fairly good bearer, ripens its crop in midsummer, and has proven well adapted to Florida, where environmental conditions are more favorable for longan production than for the lychee.

With the introduction of this improved variety, there has been a reawakening of interest in the longan that could possibly lead to the establishment of commercial groves in Florida. Probably more than one hundred airlayers of the Kohala longan have been flown into Florida from Hawaii over the past year for testing in many widely separated areas in this state. It has also been introduced into the neighboring Bahama Islands, where it has proved well-adapted to alkaline water and soil conditions.

Haitian Star-Apple

The Haitian variety of star-apple was introduced into southern Florida in 1953 by the writer as a selection he made in Port-au-Prince, Haiti. The first fruit, which appeared in 1957, was purple in color, about three inches in diameter, and nearly spherical in shape (Fig. 1). The edible portion is sweet, delicious, non-gummy, without grittiness and not excessively seedy.

The tree has been observed to bear heavy crops, commencing in late January, and extending through the end of June. Propagated from grafts and marcots, Haitian has shown good vigor, and has frequently fruited prolifically before reaching a height of ten feet. Trees grown from seed taken from the parent tree in Haiti have given poor results, confirming the need

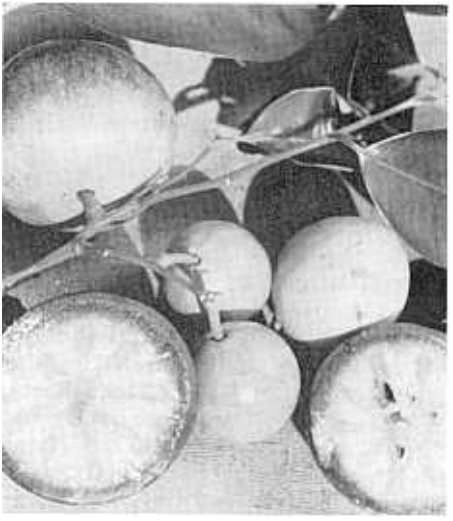

Fig. 1. **Haitian Star-Apple (*Chrysophyllum cainito*), a prolific, sweet-fleshed variety, which bears continuously from January through June.**

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for propagating this variety vegetatively.

The Haitian star-apple is being propagated by a Florida nursery, and grown as a dooryard tree both in Florida and in the Bahamas. The quality of the fruit, like that of other star-apples, tends to be best during or after a warm winter.

Seedless Cuban Sugar-Apple

The Seedless Cuban sugar-apple was introduced from Cuba into Florida in 1955. Two years later, the first fruit developed. This was irregularly shaped, and thought to be slightly inferior in flavor to that of the common seeded varieties, probably due to the presence of abortive seeds, which looked like thin, minute pieces of bran flakes. In spite of this, the novelty of a seedless sugar-apple has had wide appeal. It has been propagated in Florida and sent to South and Central America, India, and the Far East.

The Seedless Cuban is not as productive as the seeded types, but is identical to them in most other respects. It is said to be resistant to the Chalcid fly which destroys many fruits by infesting the seeds.

Seedless Indonesian Guava

The Seedless Indonesian guava was introduced into Florida from Java in 1954 as a grafted plant. The fruit that were produced by this tree the following year was yellow-skinned, white-fleshed, sweet, and of excellent flavor. When grown by itself, without cross-pollination from other guavas, a large percentage of the fruit tend to be completely seedless and frequently irregular in shape.

This variety is vigorous, and inclined to be more upright than spreading. Without cross-pollination, it is usually a shy bearer. The fruit are large, up to tennis ball size, remaining firm when fully ripe, the major crop coming in mid-summer.

Seedless Indonesian may have possibilities for use in canning of guava shells. It is fairly widespread in the Far East, and in Florida has been propagated and redistributed to the same tropical countries as was the Cuban Seedless sugar-apple.

The above four varieties were first introduced by the author into Florida, and subsequently sent by him to tropical areas showing an interest in these improved clones. With Florida's acquisition of most of the common tropical fruits of the world nearing completion, more emphasis is now being placed on a search for improved varieties, a trend that will accelerate with each passing year. The potential in this area for variety improvement appears to be unlimited.

Nuts for Pennsylvania

Test nut plantings were established at University Park, Penna., in 1950, by W. S. Clarke, Jr., of Pennsylvania State University. Chinese chestnuts in this test did not generally do well. Only one group of eight seedlings obtained from the Tennessee Valley Authority, showed any promise. It is hoped that seedlings from these trees will eventually provide selections adapted to the heavier more alkaline Pennsylvania soils.

A few black walnut varieties have performed well at University Park. These bloom late enough to escape spring frosts. According to Mr. Clarke, the variety Hare produced the best nuts in terms of size, percent of kernel, and ease of cracking. Thomas has also yielded sizable crops of good nuts. The variety Ten Eyck has produced well, but the nuts have been small. The nuts of Snyder did not fill well.