

# Behavior of the Guatemalan Avocado and the Chinese Mango in South Florida

Edward Simmonds, Plant Introduction Garden, U. S. D. A., Miami

In 1906 the Department of Agriculture introduced into Florida several Avocado seedlings of the Guatemalan type. Some of these were planted at the Miami garden amongst South American and Mexican types. In 1911 some of these fruited. Fortunately some of the seed were saved and planted; however, at that time there was very little interest taken in this type. The Trapp Avocado was planted extensively until the freeze of February, 1917, when it became apparent hardier types were necessary.

Attention was then directed to these Guatemalan seedlings, some of which had fruited and were thought to be hybrids probably crossed with the South American and Mexican types. The seedlings originating here will probably prove to be well adapted and represent a new type well suited to this section. Observations so far show their foliage, pollen and fruit suited to the climatic conditions here. One plant grown from a seed of the Winslow Avocado and fruited out by Prof. P. H. Rolfs, is already being planted. This is a free grower and so far fruits well.

The collection recently secured in Guatemala through the Department of Agriculture represent the best types to be

found there. These are established and some seem well adapted as to growth. Some of them grow well on South American stock and very poor on Guatemala; some do well on both, and some will not grow on either.

The Guatemalan race on its own stock appears so far to be ten days or two weeks later than the South American type in coming into growth in the Spring. It is generally observed at this time, the Guatemala will go very dormant in the winter. Trouble has been experienced in trying to run buds in the winter time.

A large number of Guatemalan varieties have been worked on their own type of stock at the U. S. Plant Introduction Field Station, near Buena Vista. Some are now in fruit and the next cold wave should prove if this is the proper stock for this race. Of course it must be remembered that these stocks coming from fruits raised in the old garden on Brickell avenue are probably hybrids. Some of these hybrids with their unusual vigor may prove better stocks even than pure Guatemalan or West Indian. With the interest the U. S. Department of Agriculture and the several responsible nurseries are taking in the Avocado culture, this fruit has a bright future.

With the resistance of the Chinese Mango blossom to the fungus trouble which sometimes occurs when these trees are in bloom and with the splendid growth being made on its own type of stock, it would seem that this type has a wonderful future for Florida. The early introduction in 1902 of S. P. I. 8701 under the name of Cambodiana, does not seem to have been planted extensively on its own type of stock, attention being directed at that time to the Mulgoba.

Later introductions in 1904 of S. P. I. 11645, which has been named the Saigon and of which several seedlings have been planted at the Plant Introduction Field Station on Brickell avenue, Miami, have shown promise of being worthy of propagation. Seedlings of this strain planted at the U. S. Plant Introduction Field Station, Buena Vista, Fla., in 1918, have made splendid growth on high pine sand.

It is interesting to note this type of Mango is well established in the Philippines under the name of Carabao, and in Mexico being called Manila. It seems to have become a favorite in all countries where it has been introduced; however, it has been learned that this type is not planted on its own stock on heavy clay soil in Cuba, but is generally budded on the East Indian stock. This would seem to indicate by its behavior here that this Mango prefers light well drained soil.

The fact that Florida climate suits the Mango from China should interest many in trying to get seedlings of this type established with a view of getting improved strains of this fruit. It is interesting that one of our leading growers have made a start with 400 seedlings of this Mango. It seems desirable at this time to develop this type, which may make Florida famous for this wonderful fruit.