

A vertical botanical illustration on the left side of the page. It features a large, textured orange-red fruit at the top, possibly a seed pod or a piece of bark. Below it is a single red, teardrop-shaped fruit. Further down is a branch with several green, lanceolate leaves and a cluster of small, round, red fruits. At the bottom, a bamboo-like stem is shown with a cluster of four round, red fruits hanging from it. The entire illustration is rendered in green ink with some red coloring for the fruits and the top section.

Kampong Notes

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BITTER OR NOT BITTER?

by Dr. William T. Gillis

It all started with a pie. The pie was an antidesma pie made for guests at a dinner party at The Kampong; the remainder went with me to the Fairchild Garden for dessert to be shared at lunch. Several of the luncheon group complained that the pie was "bitter". To the rest of us, this observation was extraordinary, inasmuch as we found the pie much to our liking . . . somewhat like a raspberry pie without the seeds.

This incident started a whole chain of events: the picking of more antidesma berries, mashing into juice, cooking into jelly and, of course, more pies. These were shared with personnel at the Garden, guests at The Kampong, students in University of Miami biology classes, and parishioners of the Norland United Methodist Church where I am organist. Surprisingly enough, one-quarter of all those who eat any of these products of the antidesma tree find them tasting bitter, always in the back and sides of the tongue, and upper palate (where the bitter taste buds are). The rest find the berries taste like blueberries, raspberries, huckleberries, grapes, and assorted other flavors . . . but all pleasant.

The antidesma is really *Antidesma bunioides*, a native of the Philippines which Dr. Fairchild liked very much. This is borne out by the number of trees of it that he planted at The Kampong. These trees are all fully mature now, and producing tremendous quantities of berries. No other tree is more showy in fruit than this one which bears its fruits in cluster, like grapes; they change from green to red to purple-black in the ripening process. In Occasional Paper No. 10 of the Fairchild Tropical Garden, Dr. Fairchild described the tree from which he brought seed to the United States as being "loaded down with half a ton of fruit". Nearly all of the trees presently growing in America came from one tree at the Makiling arboretum. The seeds are usually not fertile, but grow easily if they sprout. They are reported as hardy as far north as Daytona Beach and Orlando, Florida.

A breakfast at The Kampong may well start with a question, "Would you like antidesma juice for breakfast?" Usually the guest knows nothing about this unusual fruit. In the Philippines, it might be called "bignai" or "bignay"; in Java, "booni", "wooni", or "Boorneh". But antidesma jelly is the name of the specialty of the house at The Kampong. The scientific name indicates that it was used by native peoples in the Philippine area as a cure for snake bites - (probably a decoction of the leaves).

It was suspected that this difference in ability to taste the fruits as bitter or sweet was probably inherited. So I set to work to gather data as to how many persons reacted one way as opposed to the other. Among all the persons tested, it appears to be bitter for 25% of them. It's truly inherited; this means -- by the laws of heredity -- that the carrier for the bitter taste is present in about half of the population and expressed in half of these. We have yet to prove this conclusively as yet.

Not long ago, Dr. Robert Henkin of the National Institutes of Health in Bethesda, Maryland, stopped by, having heard about this strange fruit. His chief interests are in the inheritance of tastes and this antidesma problem fascinated him. He was particularly intrigued by a fruit whose taste substance was not affected by cooking it (as in the jelly or pie) and was still effective in the fresh fruit. He went back to Washington laden with bottled juice and jelly from The Kampong to try on a battery of volunteers there. We should have much more information on the inheritance pattern shortly.

Botanically, *Antidesma* belongs to the same family which came up in a previous issue of Kampong Notes - (Vol. 5, No. 1, for December 15, 1969), the Euphorbiaceae. This is the spurge or poinsettia family, noted for its poisonous species. Few members of this family are eaten, but those which are, are commonly grown for their edible parts: *Manihot* which is harvested for cassava or tapioca, and *Phyllanthus acidus*, the otaheite gooseberry. For those who find antidesma bitter, it might be difficult to convince them that it is not among the poisonous ones!

As this is written, the antidesma trees once more come into flower. And so another vintage of juice, jelly, and pie is on its way. Perhaps we should try what is done in the Philippines: wine!



Cluster of *Antidesma* Fruits

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Mrs. Florence Nugent, on the right, who sold The Kampong property to the Fairchild's in 1916. This picture was taken in the summer-time, obviously up north. Does any reader know the identity of the other woman?