

## THE 'KAMPONG' AVOCADO

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**Abstract.** The 'Kampong' avocado (*Persea americana* Mill.) originated as an open-pollinated seedling in Coconut Grove, Florida, in the early 1900's. It was named for the estate of Dr. David Fairchild, its place of origin. The 'Kampong' attracted the attention of local residents because of its consistent production, good fruit quality, and very late maturity season. The fruit are ovoid to pyriform, weighing 550 g to 850 g. The skin is dark green and the pulp is bright yellow when ripe. This cultivar has the characteristic of a Guatemalan × West Indian hybrid. The 'Kampong' has not been planted commercially in Florida or elsewhere, but is known as a good cultivar for home gardens.

The 'Kampong' avocado (*Persea americana* Mill.) originated in Coconut Grove, Florida in the early 1900s as an open-pollinated seedling of the 'Cook' cultivar at the Kampong, the estate of Dr. David Fairchild, chief of the U.S. Dept. of Ag-

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riculture's Office of Foreign Plant Introduction. It attracted the attention of local researchers and growers because of the long and very late maturity season of the fruit. Most avocado cultivars in Florida are harvested from July to December, but the Kampong will consistently retain a significant amount of fruit on the tree until March and in some years until May. This cultivar has not been produced commercially in Florida or elsewhere, but it has become known as a good cultivar for home gardens. Trees of 'Kampong' avocado have been grafted for a long time in southern Florida and graftwood has been distributed to other states of the USA and to various other countries. It remains a relatively little known cultivar, however, and can be found mainly in home gardens and cultivar collections. The information in this paper was compiled from observations on trees growing in Dade County, Florida.

### Description

Brief descriptions have been published previously by Campbell (1979), Krome (1983), and Popenoe (1963). The 'Kampong' evidently is a hybrid between the Guatemalan and West Indian races of avocado. The tree is vigorous and will grow to large size. The canopy will reach a height and breadth of 20 m or more in southern Florida, and still more on fertile soils in the tropics. Grafted trees will bloom and bear fruit three to four years after planting in the field. The tree has moderate cold tolerance, similar to that of popular Guatemalan  $\times$  West Indian hybrid cultivars like 'Booth 8', 'Choquette', 'Monroe' and 'Lula'.

The leaves are dark green, broadly elliptic, and large, with a length of 18-31 cm and width of 7-11 cm. The internodes on the twigs are 1.5-3.5 cm long. Annual leaf drop occurs from mid-March to mid-April, simultaneously with flowering. The new leaves emerge quickly, so the trees are bare only briefly.

The trees have type B flowers which open from early March to mid-April. Isolated trees produce a crop of fruit regularly, apparently without cross-pollination from other cultivars. It is possible that cross-pollination would result in greater fruit production, but that has not been established by experimental work. The trees produce crops of moderate size quite regularly, every year if no freezes occur. Mature trees can be expected to produce 275-330 kg of fruit annually if they receive good care.

The fruit (Fig. 1) is ovoid to pyriform, weighing 550-850 g. Fruit size depends upon the amount of fruit on the tree. The pedicel of the fruit is relatively thick and the fruit is not easily blown from the tree by wind. The seed is tight in the cavity of the fruit and weighs about 120 g.

The skin of the fruit is smooth and dark green, with little change in color as the fruit ripens. The skin is of medium thickness and pliable. There are relatively few stone cells in the pulp adjacent to the skin, and those are small and not objectionable to consumers. The pulp has a bright yellow color and a smooth, buttery texture. The flavor is good to excellent. The leaves and fruit are susceptible to *Cercospora* spot, caused by the fungus *Cercospora purpurea*, and anthracnose or black spot, caused by the fungus *Colletotrichum gloeosporioides*. Both of these diseases can be controlled by application of fungicides. Disease control would be necessary for production of a commercial crop free of undesirable fungal lesions, but a moderate crop can be produced in the home garden without application of fungicides.



Fig. 1. The 'Kampong' avocado.

### Discussion

It is reasonable to believe that the 'Kampong' avocado is a Guatemalan  $\times$  West Indian hybrid because it has the typical characteristics of one, the mother tree was of the Guatemalan race, and there were many West Indian avocado trees growing in the vicinity where the mother tree was located. Florida growers never have adopted the 'Kampong' as a commercial cultivar for several reasons. Firstly, it matures much later than the "traditional" season of July to December when most Florida cultivars are harvested and sold. Secondly, the maturity season of 'Kampong', and therefore the harvest period, is long. Many growers consider a long harvest period to be a disadvantage, although this opinion is not held by everyone. Also, although the 'Kampong' bears moderate crops of fruit very regularly, it is not as productive as several other cultivars which make up the majority of the commercial crop of Florida.

On the other hand, the 'Kampong' lends itself well for home gardens, especially for growers who wish to have a very late-maturing cultivar of good quality at a time of year when local avocados are scarce. An additional advantage is the long maturity season. Fruit which will ripen with acceptable eating quality can be harvested at the beginning of December, and harvest can continue in most years until the end of March, and in some years until late May. Most home garden growers consider that to be a great advantage. It should be mentioned that severe *Cercospora* spot infection causes early fruit drop, so the best way to assure a crop of late fruit is to apply fungicides to prevent infection. These applications will also control anthracnose spot. Trees of many avocado cultivars cause problems for gardeners with limited space available because they grow fast and become very large. The 'Kampong' is one of these. Growers who selectively prune back 3 or 4 of the longer branches each year after fruit harvest can keep the canopy to a smaller size and still get a reasonable crop of fruit on the unpruned branches.

### Conclusion

The 'Kampong' avocado has many desirable genetic characteristics, and therefore is a valuable addition to any avocado germplasm collection. Although it has not been tested extensively in many places, there is good reason to believe that it has the wide climatic adaptability that is typical of Guatema-

lan × West Indian avocado cultivars. Although the 'Kampong' has not attained commercial importance, it is possible that in the future it might be adaptable to a changing agriculture in which specialty crops would have importance. Certainly the 'Kampong' avocado has proved to be a good home garden cultivar in Florida, and it can be recommended for that without reservation.

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