

Mauritius Sugar Industry Research Institute

Rare crops of Mauritius: III. Yams

(N Govinden, MSIRI, Réduit)

The authorities in Mauritius are advising all those who can or who care to start or restart the cultivation of traditional foodstuffs for home use in replacement of expensive imported ones. In Mauritius and Rodrigues the ones considered as possible partial replacements for staples such as rice and wheat flour are potato, sweet potato, cassava (or manioc) and taro (arouille). All four are classified as root crops and are rich sources of starch. A lesser-known root crop is yam, known as Igname in French. In Mauritius, it is much rarer than the other four.

Yam belongs to the family Dioscoraceae. Many yam species are grown around the world. Only two appear to be present in Mauritius and Rodrigues : *D. esculenta*, the white yam and *D. alata*, the lesser yam. Both are vigorous lianas which produce large edible tubers.

D. alata is known under the vernacular “cambare douri”. There seems to be two varieties, one of which produces small edible aerial tubers known as “pomme de l’air”, in addition to the underground tubers. The latter are large, often up to 10 kg and are sometimes misformed, especially in hard soil. The tuber flesh is off-white in colour, while the tuber skin has purple tints which fade after a few days.

D. esculenta is called here “cambare bety”. It does not develop as vigorously as *D. alata*. The tubers are smaller, up to 5 kg, and more uniform and spherical in shape. Tuber flesh is white with purple streaks, somewhat like arouille violette (*Colocosia esculenta*).

Yam tubers must be cooked before eating; when raw, they contain substances which irritate the mouth. The commonest way to cook them is to boil them after washing. There is no need to peel them first. When they are immature the consistency is wet or mushy. To obtain a drier consistency, it is necessary to keep the tubers for one week or so after harvest before cooking by steaming. Another possibility is to steam them for a short time (15 minutes), and to complete the cooking in a microwave oven. Then, they can be mashed into a purée and served as such or baked with a cheese topping or fashioned into meat or fish balls and fried.

Yams are grown from small tubers. At harvest, all small tubers and fragments which are not needed for sale or home consumption can be reserved for replanting. Such seed tubers should be stored in a dry and

cool place, for instance, in between newspapers or dry banana leaves in a basket. They will start sprouting after 1 month or so.

Because the tubers are large, yams should be planted in large holes of dimension 0.6 x 0.6 x 0.6 m. Liberal amounts of organic matter in the form of compost, manure or factory filter muds should be added with a handful of triple superphosphate and a complex fertilizer.

Yams are viny plants. They need a support for good production. One possibility for backyard production is to stick two 6-ft giant bamboo poles or guava stalks with branches in each planting hole. Another possibility for commercial plantations is a trellis system of stout poles at the end of rows and two stretch wires at 1.0 and 1.5 m from the ground surface. Any short stick can then be driven in each planting hole to lead the vines up to the wires.

Only sprouted tubers should be planted in the period September to October. In the absence of rain they need to be watered in the first two to three months. Harvest can commence when the leaves have dried out as from July and continue for one or two months. Thus, the crop cycle lasts between 8 and 12 months. Late planting in December reduces the crop cycle and the yield. Once harvested, the tubers do not store very well, one month at most. If left in the ground, they will sprout after a few weeks.

A few seed tubers can be obtained on request from the Head, Food Crops Department of MSIRI in the period August to October. The Head of the Horticulture Division of the Ministry of Agro Industry & Fisheries can also be approached for some seed tubers.