

## NCU solar yam stick production

With JAMAICA underpinning their sprinting prowess in the London Summer Olympics, the question continues to be on everybody's lips, 'Why do Jamaicans run so fast?'

While some have laid the blame squarely at the feet of the slave masters, others have put it down to our yams and their medicinal value. Whatever the reason, most Jamaicans will agree that yams are an important part of their diet, a fact which, like the environment the tuber depends on, has captured the attention of scientists at the Northern Caribbean University (NCU). Lead by the dean of the College of Natural and Applied Sciences, Dr Vincent Wright and environmental scientist Professor Mark Harris, the team at NCU has turned its focus to solar yam stick production, which is set to benefit the farming communities of Manchester, Trelawny and St James. According to Wright, yam stick production has several benefits as it "improves the environment" and "prevents deforestation". He said the country is now grappling with, "a shortage of yam sticks because many of the trees have been cut down in areas such as St James and Trelawny". Bauxite mining has also added to that dilemma as vast areas of land normally used in farming, particularly in the parish of St Ann, "have been mined out".

Environmental awareness Under NCU's yam stick production project, approximately two hectares of land has been designated as a demonstration plot for yam stick harvesting in the farming community of Albert Town, Trelawny. The project will, among other things, foster environmental awareness among farmers and provide yam stick production skills, thereby protecting and preserving the biodiversity of the Cockpit Country. Established in September 2011 by Professor Harris, the novel yam stick demonstration plot contains 30 solar yam sticks and 30 experimentally treated bamboo-hybrid yam sticks. The latter are, in appearance, organic replicates of branched PVC sticks, which increased tuber yields by 20 per cent. According to Professor Harris, research has shown that "though the PVC solar yam stakes increased tuber yields and are durable, concerns have been raised regarding their petroleum-based source". He said "at the Albert Town demonstration plot, teak branches have, therefore, been artificially joined to treated-bamboo uprights, thereby structurally simulating the high-yielding solar yam stakes made from PVC material" which, 'in the right climate, regrow very quickly on teak trees. The cured, young teak branches used as side branches of the treated bamboo solar yam stakes, therefore, increase a forestation because no teak trees are cut down in this process'. Further, "as the bamboo stakes are treated with natural preservatives, there is no danger of soil or tuber contamination".

The technology here varies from the traditional method for yam stick production used by many farmers, which see them arbitrarily cutting down trees in the forests or purchasing large quantities of yam sticks from cutters, for their farms. The benefits of the project to the environment are far-reaching as the use of the cross branches, made of a durable teakwood, allows them to spread out and facilitate greater photosynthesis resulting in substantially shorter yam sticks, thereby reducing significantly the incidence of deforestation in the country's watershed areas. Considered a major watershed area, the Cockpit Country in Trelawny preserves several endangered plant species and is also a reservoir for over 30 per cent of the country's water supply. With the first yield from the pilot project just around the corner, an upbeat Harris said "right now, we have a demonstration plot and they (the farmers) will see the results ... the reaping of that yield will take place in August and then they (the farmers) are going to compare the yield with theirs".

Meanwhile, farmers in and around the Mandeville-based institution and other sections of the island are excited about the project. "The farmer who owns the demonstration plot said to me, 'Everybody's with this'. They are excited about it ... and they will see, firsthand, the benefits of it," Harris said. The programme is being promoted with the assistance of the Rural Agricultural Development Authority, who will be "doing the dissemination of information to Manchester and other parishes" throughout the island. Jamaica Gleaner