



A farmer sorting several cocoa pods after harvesting at NaCORI in Mukono. PHOTOS BY DAVID MAFABI

Agricultural scientist Twine tending to a cocoa plant in his Mukono based garden

Experts tip farmers on cocoa growing

7,000

KILOGRAMMES OF DRY COCOA BEANS A FARMER HARVESTS IN AN ACRE

Farmers have been advised by NaCORI to embrace the cultivation of high-yielding cocoa, writes **DAVID MAFABI**.

Many of us not only love our chocolate but crave it. So it comes as no surprise that the National Coffee Research Institute (NaCORI), in Kituza is urging farmers to supplement their coffee gardens with cocoa farming. NaCORI is pushing for the planting of hybrid cocoa varieties, which have just been developed. According to the scientists, the latest hybrid achieves bigger harvests besides early maturity.

Seedlings

Julius Twine, the agri-business manager at NaCORI exudes the confidence of a motivated breeder that farmers will earn more if they embrace cocoa farming alongside coffee. "Cocoa farming is very profitable. The farmers need to give it a try and plant it," said Twine.

Planting

According to Job Chemutai, the cocoa breeder at NaCORI, cocoa requires deep, fertile soils with PH range of 4.5 to 6.0, top soil of 15centimetres, rainfall ranging from 1,250 to 2,000millimetres per annum well distributed throughout the year. Chemutai says because the plant thrives under tree shades, farmers must plant trees in their gardens. Like coffee, cocoa is planted at a spacing of 10 by 10feet while the shade providing trees should be in the range of 40 by 40feet. Dr Wagoire says marked out lines

should follow the contours across the slope to minimise soil erosion and that the holes should be dug one month before planting to allow soil to settle and cool. "Top soil and sub-soil should be separated, the soil mixed with well-fermented manure and filled back into the hole where you are going to plant your cocoa tree," said Dr Wagoire.

Prices

Twine told *Daily Monitor* that a kilogramme of dry cocoa beans at local farm-gate prices in Uganda range from Shs6500 to Shs9,000 per kilogramme for dry cocoa beans, with the mean annual farm yield estimated at 550 to 1,300 kilogrammes per acre.

As the cocoa tree matures, it produces more fruits. Twine says a 15-year-old tree can produce more than 15 kilogrammes of dry beans, adding that an acre contains about

400 trees.

"This means you can get 7,000 kilogrammes of dry beans in one season and although the prices fluctuate cocoa farmers have a mechanism to endure," said Twine. He added that cocoa is currently the fourth top foreign exchange earner for Uganda after coffee, fish and tea, fetching

US\$73m (Shs262b). Records at NaCORI indicate that Uganda has about 21,000 hectares of land under cocoa cultivation, of which 6,054 have mature productive cocoa plantations and more than 11,790 acres are covered by young cocoa plants.

"And our target is to increase the number of farmers cultivating cocoa because currently the crop is grown by 15,000-18,000 smallholder households scattered in central, mid-western and mid-eastern regions of the country," said Twine.

Where cocoa is grown

Dr William Wagoire, the director of NaCORI said Uganda's geographical location and agro-climatic conditions favour cocoa production and that the crop can grow well in areas under robusta coffee production. He revealed that major districts producing cocoa include Bundibugyo, Mukono, Jinja, Mayuge, Kibaale, Hoima, Mpigi, Luwero, Buikwe, Kamuli and parts of Mbale.

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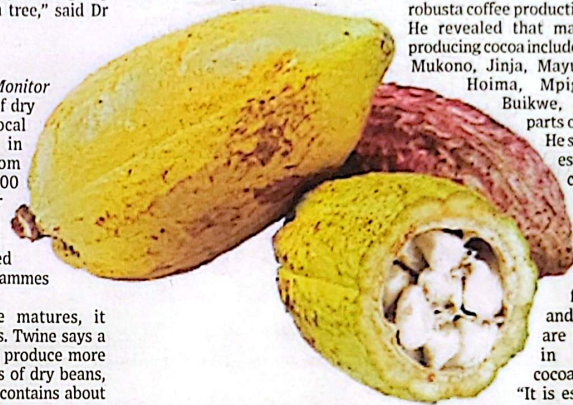
He said the cost of establishing the cocoa field and maintaining the young cocoa is off-set by income from bananas and beans which are inter-planted in the young cocoa. "It is estimated that

a net profit of Shs7.5m per acre can be obtained from a well managed field after four years and of the first cropping cycle," explains Dr Wagoire.

Profitable

Information from the Uganda Export Promotion Board (UEPB) currently indicates that at farm-gate prices, fresh cocoa beans range from Shs3,000 to Shs4,500 while that of dry beans is at Shs6,500 to Shs9,000 depending on location and quality. Records indicate that cocoa is sold at \$3,000 (Shs10m) per tonne while the farm-gate price for dry bean fluctuates between \$2272 (Shs8.1m) and \$2575 (Shs9.1m) per tonne depending on the location. Christopher Kibazanga, the state minister for agriculture, says farmers need to be trained on how to grow cocoa because it is a specialised crop.

"It is a very viable crop with a high global demand and what is needed urgently is adding value so that Uganda can export processed cocoa. And as Uganda Investment Authority embarks on the compilation of bankable projects, this should be one of the priority projects," said Kibazanga. The export records indicate that since July 2015, 26,412 metric tonnes of cocoa were exported by December 2015, fetching total export earnings of \$72.536m (Shs260.3b). The major cocoa promoters and buyers in Uganda include; Swisscontact, Esco (U) Ltd, UGADEN and Semuliki cooperative union.



TIPS FOR PLANTING COCOA IN YOUR BACKYARD GARDEN

Suitable container

Start with a container that is large enough for the plant to grow. For seeds, small containers are okay provided they are deep, as the roots need to burrow down. If growing from beans, the seedlings can be transplanted at about four to five months.

Prepare the soil

Use a mixture of well-rotten compost

and sand to recreate a rich and sandy soil environment. The soil needs to be fertile and rich. It needs to drain well but hold moisture. Fine mulch works well.

Plant in the pot

Cocoa seeds will sprout quite easily. Seeds must be germinated before planting. Seeds must be watered at least twice daily after planting. Use a fine, soft spray of water so as not to damage the seeds.

Humid environment

Ideally, this should be a temperature-controlled greenhouse. If you are planning on keeping the plant indoors without such warmth and humidity, choose a spot with lots of regular warmth. The preferred temperature level for cocoa trees is 79°F/21°C, the lowest level being 60°F/16°C, without wild fluctuations. Place a bowl of water next to it to release humidity.

Avoid direct sunlight

The chocolate tree thrives under the shade of rainforest canopies in nature. It is not fond of the sun and will dry out quickly, even with intense heat.

Keep it warm

Cold is another enemy of the cocoa tree. This is a tricky plant to grow. The environment must remain warm but neither too hot nor cold.