

Sweet Potato Can Be Developed As Foreign Exchange Earner

By Siaka Kofi Duffuor

The Minister for Food and Agriculture, Major Courage E. K. Quashigah (retd), at his turn of "Meet-the-Press" series organised by the Ministry of Information at Teachers Hall in Accra on Tuesday, March 11, 2003, launched a publication on Sweet Potato.

The pamphlet, which was published by the Council for Scientific and Industrial Research (CSIR) – Crops Research Institute in Kumasi in November 2002, is captioned "Sweet Potato: The crop of the future".

The main objective of the publication is to create awareness of the cultivation of sweet potato and its potential as a high-income earner for Ghanaian farmers.

To create awareness and encourage farmers in the country to go into intensive production of the crop, it is imperative and desirable to study the crop – its origin, adaptation to environmental conditions, cultural and management practices (Agronomic practices), nutritional values, processing, utilisation and economic importance.

The Botanical name of Sweet Potato is *Ipomoea Batatas*; originated from Tropical America and belongs to the plant family *con-voluucaceae*. It is widely grown in tropics in general – Caribbean, Malaysia, East, Central and West Africa.

It is herbaceous, mainly creeping and sometimes semi-erect, depending on the variety (cultivars). A single plant can produce up to 50 tubers. Several different varieties are grown worldwide, but they are often selected for planting depending on the environmental conditions and local preference such as colour and taste.

The crop is very tolerant to a wide range of environmental conditions, but good growth and other requirements for maximum yield is achieved at altitudes 4,000 feet. Sweet Potato does well on wide ranges of soil. However, the cultivation of a particular cultivar depends, largely, on a specific type of soil.

Usually, the crop does well on a well-drained soil with high organic matter content. Sandy soils with adequate soil water and high organic matter content produce higher yields.

The cuttings (stems) are used for planting but tubers with developing buds may be used where cuttings are not available. The cuttings can be

planted on either well – ploughed and harrowed land, flat lands, ridges, or on raised beds. Spacing, usually, depends on the cultivar.

Normally, potato does not require artificial fertilisers, however, (N.P.K.) – an artificial chemical fertiliser of nitrogen, phosphorus and potassium, is applied to the soil several days before planting to improve yield on infertile soils.

Weeds, diseases and pests are controlled as it is done in crops farming, to check their physiological and environmental injuries to plants and also to ensure proper growth and development for good yield.

The crop takes 12 to 24 weeks from planting to maturity depending on the variety. Average yield is six to 10 tonnes per acre. Mechanical harvesting is required in commercial farms.

In Ghana, due to the immense potential of the crop, the Crop Research Institute of Kumasi and its collaborators, after years of verification trials, has come out with four new varieties, namely, Faara, Sauti, Santom pona and Okumkom.

These varieties, which take only 12 weeks from planting to maturity, are rich in nutrients such as energy, compounds, beta – carotene, fibre, mineral and several vitamins including vitamin A, C, riboflavin, niacin and a host of others.

In addition, they are diseases and pests resistant, adaptable to Ghanaian soils and give yield range from 10 to 25 tonnes per hectare, depending on agronomic practices.

According to Major Quashigah (retd), researchers are working hard to come out with new varieties for multiplication and distribution to farmers nationwide for planting.

He further said that extensive awareness for children cultivation of the crops is being created and that farmers, especially in the Northern part of the country, are being encouraged to produce more for export to the neighbouring Burkina Faso.

He stated that as a step to alleviate poverty in the country, farmers who want to go into the production of sweet potato would be assisted with financial support. This plan, when fully implemented, will undoubtedly, reduce poverty in the country.

In U.S.A. for example, due to the unique features and nutritional values of the crop, it has been selected as a crop to feed astronauts on long-term space missions.

The crop has immense potentials, which Ghana is yet to exploit. The diversity of the crop – different varieties with different taste, flavour, texture, nutritional qualities and skin colours, makes it extremely adaptable to be processed into a wide range of domestic and industrial products.

For example, in some industrial countries like Japan, china and U.S.A., sweet potato is being used as a major raw material for production of basic bio-plastic car parts by major motor manufacturing companies.

Sweet potato starch can also be used to produce custard, transparent noodles and starch-based sweeteners such as maltose and glucose syrups.

Currently, Vietnam exports about 70 tonnes of potato monthly to China for production of maltose and glucose syrups, which are used in the manufacturing of baby's foods in some western countries.

In Ghana, until recently, the use of sweet potato was mainly confined to household and roadside vendors for simple food preparations such as Otto, Abollo, Ampesi and sweet potato fish balls, but now the trend is changing. The leaves, vines and roots are processed into livestock feed.

Research has now shown that sweet potato flour is a good composite for wheat flour in bakery industry. Bakers in Ghana now use it in preparing bread, biscuits, cakes, doughnuts, rock buns and other pastries. In India and Indonesia, sweet potato flour is used as a stabiliser in ice-cream industry and in the production of fudge-like sweets known as Bafee.

Sweet potato also provides more bulk and nutrients such as yoghurt and salad cream. It is said to be giving high economic returns. Various fruity-type products like jams, non-alcoholic beverages and toffee products with fruity characteristics can also be made from the crop, especially from the orange and yellow-fleshed varieties.

Presently, sweet potato gari and pre-cooked sweet potato flakes have been developed in the country and research has also identified poundable potato varieties that can be made into excellent Fufu.

The crop has a highly significant role to play in the crusade against vitamin A deficiency because some varieties have high levels of beta – carotene, one of the major sources of vitamin A, which, when well

integrated into the diet, helps to alleviate health problems associated with vitamin A deficiency, especially in children.

Sweet potato production has a major role to play in the country's food security and poverty alleviation programme, since poverty is the main developmental problem in Africa.

Awareness creation geared towards sustainable production, utilisation and processing of the crop depends largely on the media and agricultural extension workers. While the media through advertisement, publications, radio and television programmes are creating awareness and potential of potato crop as a high income earner, the agricultural extension agents, who are the implementers of the government's agricultural policies and programmes and serve as a link between research and farmers, through farmers field days, farmers forum, field trips, method and results demonstrations, should also carry the message to farmers. There is, therefore, the need to assist these two professional bodies with funds and logistics to enable them to carry out this simple but difficult task.

It is believed that sustainable production of the crop can overtake cocoa in terms of foreign exchange because potato has a gestation period – period from planting to maturity of 12 weeks, diseases and pests resistant, and above all, ready market in the international market. As at November 25, 2003, a kilogramme of potato on the international market was \$2.28.

It cannot therefore, be over-emphasised that sweet potato production can make a tremendous contribution to Ghana's economy, if its potentials are fully tapped and production is sustained.

Source: Culled from "Daily Graphic" 13/04/04