



HORTICULTURE INNOVATION LAB PHOTO: ROBERT ZABAWA, TUSKEGEE UNIVERSITY

Tuskegee University's Eunice Bonsi (right) is working with food processors and bakers to formulate flours, breads, purees and weaning foods using orange and purple sweet potatoes.

Above, a plate full of sweet potato includes orange and purple varieties, as well as palava sauce made with sweet potato leaves.

FROM VINE TO FLOUR: BRIDGING GAPS IN SWEET POTATO VALUE CHAIN

In Ghana, white-fleshed sweet potatoes already play an important role in food security, but orange-fleshed varieties have the potential to alleviate vitamin A deficiency while being incorporated into familiar foods.

Vitamin A deficiency is the leading cause of preventable blindness in children and increases the risk of severe infections. In Ghana, vitamin A deficiency affects 72 percent of the country's children under 5 years of age.

Though interest in orange-fleshed sweet potato has been on the rise, widespread production and consumption of these vitamin A-rich varieties in Ghana still remains limited due to lack of awareness, limited availability of clean-planting materials and limited inclusion in the diet.

As part of Feed the Future, Dr. Eunice Bonsi of Tuskegee University leads an international team working to increase the consumption of orange- and purple-fleshed

sweet potatoes in Ghana, through activities that strengthen the crops' value chain in three of Ghana's sweet potato growing regions. Other team members include the University of Ghana, Pennsylvania State University, the Savannah Agriculture Research Institute (SARI), Ghana's University for Development Studies and a number of other organizations.

The team established sweet potato vine multiplication sites at SARI and at research facilities in the Northern and Upper East regions in Ghana. Lead farmers have planted the clean vines for demonstration and now serve as distributors of disease-free germplasm. Farmers were also trained in best management practices.

The team conducted focus groups on orange and purple sweet potato palatability and preferences with local schools and non-governmental organizations. They also established demonstration gardens at schools and NGO sites. Through a newly developed partnership with local 4-H, the

group is also working to promote the new varieties to youth.

Researchers from SARI and Ghana's University for Development Studies analyzed products already available in Ghana that use orange- or purple-fleshed sweet potatoes. The team has promoted the potatoes' inclusion in traditional recipes, some of which have been served at SARI's cafeteria.

The team formulated a weaning food that incorporates the vitamin A-rich sweet potatoes, and have trained women entrepreneurs to process these colorful sweet potatoes into flour, purees and dehydrated chips. Local bakers are now using locally grown, orange sweet potato puree to make bread—and marketing it as more nutritious than other breads.

Incorporating orange-fleshed sweet potatoes into Ghanaian fields, village bakeries and infants' diets adds nutritional value to existing foods.



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