

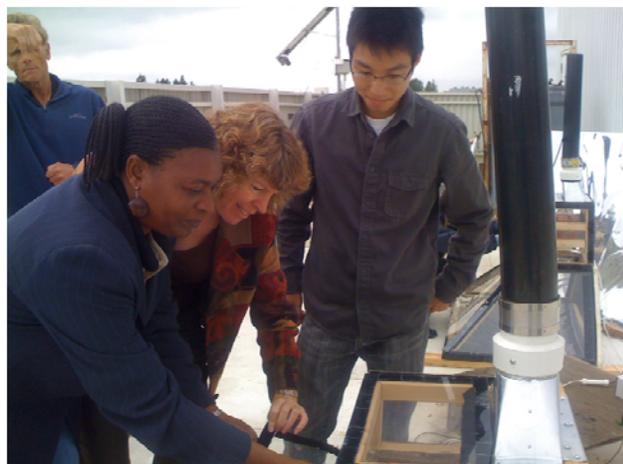
Horticulture CRSP - Projects in Tanzania

Concentrated Solar Drying of Mango and Tomato (ending July 2011)

Principal Investigator: Diane M. Barrett, University of California, Davis

Collaborators: Program for International Energy Technologies, and Ministry of Agriculture Food Security and Cooperatives for the United Republic of Tanzania

This project designs and tests a batch concentrated solar power (CSP) dryer for mangoes and tomatoes in simulated cloudy environments for use in Tanzania. In Tanzania, harvest periods are short, but less than 1% of the crop is processed for off-season consumption. Previous attempts at establishing solar drying have been unsuccessful due to their expense, low throughput capacity and inability to operate in cloudy environments. The CSP technology utilizes reflective surfaces to increase solar heat gain. CSP is less expensive than glazed solar collectors, but had never been applied to food drying. The dryer improves dried product color, texture, nutrient retention and rehydration properties. This technique has the potential to reduce the current 50-80% postharvest loss and increase product value.



Diane Barrett (middle) and Bertha Mjawa from the Tanzanian Department of Agriculture use the batch concentrated solar power dryer to test tomato drying under cloudy conditions.

Indigenous African Leafy Vegetables (ALVs) for Enhancing Livelihood Security of Smallholder Farmers (ending May 2011)

Principal Investigator: Stephen C. Weller, Purdue University

Collaborator: AVRDC-The World Vegetable Centre

This project enhances the potential for production, utilization and marketing of ALVs like: spider plant, African night-shades and amaranths, in Eastern Africa. These indigenous species contain higher levels of nutrients than common exotic species like cabbage. This project focuses on establishing a base of information and experience for greater production and use of indigenous vegetables. The long-term benefits of this project are improved nutrition, health and economic security for Africans, especially those afflicted with HIV/AIDs and women farmers.

Extension of Appropriate Postharvest Technology in Sub-Saharan Africa: A Post Harvest Training & Service Center (ending October 2013)

Principal Investigator: Diane M. Barrett, University of California, Davis

Collaborators: Ministry of Agriculture Food Security and Cooperatives of the United Republic of Tanzania

This project combines a wide variety of training programs, adaptive research, and demonstrations of post-harvest services to reduce post harvest losses, improve food quality, safety and nutritional value in Sub-Saharan Africa. Thirty post-harvest specialists from six Sub-Saharan countries will be trained to implement and teach postharvest techniques to approximately 1,000 women farmers in their home countries. This project will result in increased consumption of higher quality produce and better returns of investment to women farmers.

For more information on Horticulture CRSP, visit <http://hortcrsp.ucdavis.edu>