Horticulture Collaborative Research Support Program – Eastern Africa

Reducing poverty, improving nutrition and health, and improving sustainability and profitability through horticulture.

What is the Horticulture CRSP?

Three billion people live on less than two U.S. dollars per day. Funded by the U.S. Agency for International Development (USAID) in 2009, the UC Davis-based Horticulture Collaborative Research Support Program (CRSP) is a joint effort among universities and their international partners to improve incomes and health of the rural poor through fruits, vegetables, herbs, spices, and ornamentals.

Horticulture CRSP Objectives

- Realize the opportunities of horticultural development
- Improve food security
- Improve nutrition and human health
- Provide opportunities for diversification of income
- Advance economic and social condition of the rural poor, particularly women

How does Horticulture reduce poverty?

- Horticultural crops are higher in value than grains and other staple crops; with proper postharvest handling and marketing, these crops can increase farmer incomes.
- Horticultural crops contribute to year-round cropping systems, more diverse crops, and improved food security.
- Diets rich in fruits and vegetables are healthier and more nutritious.
- The horticulture value chain creates demand for labor.

Uganda and Rwanda

Extension of Appropriate Postharvest Technology in Sub-Saharan Africa: A Regional Postharvest Training and Services Center in Rwanda

Goals: Train postharvest specialists and open postharvest training centers throughout Sub-Saharan Africa where research and demonstration would be conducted. Reduce postharvest losses and improve incomes.

Partners
- Diane M. Barrett, University of California, Davis
- Lisa Kilina, World Food Logistics Organization
- Dan MacLean, University of Georgia
- Hilda Yasirhanakaam, Kigali Institute of Science and Technology, Rwanda

Increasing the Capacity of Smallholder Farmers to Produce and Market Vegetable Crops in Uganda and Democratic Republic of Congo

Goals: Develop a participatory extension model to rapidly improve smallholder linkages to horticultural markets, which is achieved by merging and supplementing two agricultural development models - Farmer Field Schools (FFS) with the Participatory Market Chain Approach (PMCA). Strengthen farmer groups' capacity to produce indigenous leafy green vegetables and tomatoes for the market and improve farmers' ability to use their farm as an income generating asset.

Partners
- Kate Scow, Johan Six, Mark Van Horn, Heidi Ballard, and Stephen Boucher, University of California, Davis
- Edith Naggenda and Ignilius Bewojo, Rural Agency for Sustainable Development, Uganda
- Michael Masiason, Uganda Christian University, Uganda
- Beatrice Akele and Peter Lusumbo, National Agricultural Research Organization, Uganda
- Harriet Nsabuga Mpanja, Agricultural Initiative Trust, Uganda
- Prossy Isibikalu, Makerere University, Uganda
- Dennis Yiga, Mukono District Local Government, Uganda
- Karel Van Laar, Scheut Tshilomba, Democratic Republic of Congo

Coolrooms and Cool Transport for Small-Scale Farmers

Goals: Testing an innovative system, the Cool-bot(TM), which uses an intelligent thermostat system, the Cool-bot(TM), which uses an intelligent thermostat system controlling a standard room air conditioner to create a small-scale cooler out of a well-insulated room with a variety of insulating materials.

Partners
- Michael Reid, Jim Thompson, and Cecilia Chi-Haam, University of California, Davis
- Royce Gloria Androa, Reach Your Destiny Consult, Ltd., Uganda
- Neetu Dubey, Amity University, India
- Dine Espinal-Rueda, Zamorano University, Honduras
- Ron Kholis, Store-it-cool, LLC

Coolroom Construction in Tanzania


Partners
- Stephen Welker and Maria Marshel, Purdue University
- Dharma Pitchay, Tennessee State University
- Matthew Ngojua, Michigan State University
- Pamela Obura, Grace Cheaenek, Elizabeth Onami, and Julius Ochuchuo, Moi University, Kenya
- Christine Ninyika, Kenya Agricultural Research Institute
- Chris Ojlew, AVRDC-The World Vegetable Centre, Tanzania

Agricultural Technology Transfer in Kenya: A New Approach to Training and Engagement

Goal: Use leadership training to improve agricultural productivity.

Partners
- Steve Fenimore and Jeff Mitchell, University of California, Davis
- Peter Mutua, South Eastern University College, Kenya

Kenya and Tanzania

Low Cost Pest Exclusion and Microclimate Modification Technologies for Small-Scale Vegetable Growers in East and West Africa

Goals: Demonstrate efficacy of Eco-Friendly Nets, insect barrier nettings (either treated or not with insecticides) at protecting vegetables against pests and associated viral diseases and of floating row covers at improving crop micro-climate and enhancing yield and produce quality.

Partners
- Mathieu Ngojua, Michigan State University
- Thibaud Martin, Serge Simon, & Laurent Parrot, CIRAD
- Francois Konlan, INRAB, Benin
- Lusike A. Wasilwa, KARI, Kenya
- Ansarime Adagoldi, Aboney Calari University, Benin
- Damien Ahoouangai, APRETETRA, Benin
- Mwanarusi Saidi, Egerton University, Kenya
- Pierre Guillet, Abz Textile Mills International, Tanzania


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- Pamela Obura, Grace Cheaenek, Elizabeth Onami, and Julius Ochuchuo, Moi University, Kenya
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Partners
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- Peter Mutua, South Eastern University College, Kenya

Partner
- Diane Barrett, Pieter Stieve, Kurt Kornbluth and Jim Thompson, University of California, Davis
- Bertha J. Mpawa, Ministry of Agriculture Food Security and Cooperatives, United Republic of Tanzania

HortCRSP Goal: Apply research findings and technical knowledge to increase small producers participation in markets through technology like cool storage.

Management Team

- Ron Voss, Director
- Beth Mitcham, Associate Director
- Michael Reid, Leader-Innovative Technology and Special Projects
- Mark Bell, Leader-Communication and Information Transfer
- Heather Kawakami, Budget Analyst
- Sabrina Morgan, Budget Analyst
- Amanda Crump, Program Evaluation and Gender Equity
- Diana Puccetti, Office and Event Planning Assistant
- Peter Shapland & Elena Peach-Fine, Graduate Assistants

Partners
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- Peter Mutua, South Eastern University College, Kenya
- Hilda Vasanthakaalam, Kigali Institute of Science and Technology, Rwanda

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