

# How fruit and vegetable research can impact poverty around the world

## Do you work with one of our partners?

Horticulture CRSP partners with U.S. universities, national agricultural research institutes, private enterprise, non-governmental organizations and foreign universities in Africa, Asia and Latin America. We continue to further strengthen the capacity of our research network with new collaborators.

So far Horticulture CRSP has collaborated with exceptional researchers from 18 U.S. universities whose expertise lies not only in horticulture, but also in plant pathology, soil science, sociology, biotechnology, agricultural education, tropical plants, resource economics, engineering and more.

Highlighted on this poster are some of Horticulture CRSP's projects led by University of California researchers who are part of UC Cooperative Extension and the Division of Agriculture and Natural Resources.

## Our partnerships cross borders to strengthen horticultural value chains

Horticulture CRSP has supported collaborations with more than 18 universities and 200 organizations on projects for smallholder growers around the world. Each of our projects includes partners from a U.S. university and from an

organization in a developing country, particularly from those countries in Africa, Latin America and Asia prioritized by the U.S. Agency for International Development.

These partnerships have improved how more than 5,900 practitioners grow, process or sell horticultural crops—through adoption of new practices or technologies. Our projects span the value chain, from seeds to production to postharvest to marketing and extension.



### Why growing fruits, vegetables and flowers matters

Improving livelihoods—through higher profits and diversified, nutrient-rich diets—is a major goal for Horticulture CRSP's research efforts around the world.

- **Enriching diets:**

Horticulture—growing fruits and vegetables—provides critical nutrients for a balanced diet. Not eating enough fruits and vegetables is a major factor in some of the world's most widespread and debilitating nutrient-related disorders.



- **Increasing incomes:**

High-value horticultural crops, such as fruits, vegetables, flowers or herbs, can be an engine for agricultural and economic diversification.



### What horticulture needs:

Information access, capacity building, technological innovation and gender equity are themes in all Horticulture CRSP projects.

- **Gender equity:**

In many countries, vegetables, fruit and cut flowers are considered "women's crops" and when provided equitable training, women growers are well poised to increase productivity and expand markets.



- **Access to information and research capacity:**

Growing diverse, high-value crops requires access to reliable information, a well-trained workforce and local capacity to conduct both original and adaptive research.

- **Innovation:**

Given the complexity of horticulture, "leapfrog" technologies can reduce constraints that limit the ability of smallholder farmers to achieve maximum profitability in horticulture.



### Managed by UC Davis team

Horticulture CRSP is managed by a team at UC Davis and directed by Elizabeth Mitcham, UC Cooperative Extension specialist in the Department of Plant Sciences.



Director  
Elizabeth Mitcham

The program is funded by the U.S. Agency for International Development, which administers the U.S. foreign assistance program providing economic and humanitarian assistance in more than 80 countries worldwide.

In 2009, USAID selected UC Davis to lead this \$15 million project for five years, with the intent to help the world's poorest people break out of persistent poverty by growing and marketing high-value crops.



### Testing leadership training for agriculture in Kenya

Led by Steve Fennimore, with assistance from Jeff Mitchell, Oleg Daugovich and Peter Mutua, this project engaged urban professionals to develop technical and management capacity among rural farmers, to ultimately develop rural-based horticultural businesses together.



### Demonstrating low-cost cooling in Honduras

Michael Reid, Jim Thompson and Cecilia Chi-Ham partnered with researchers from Honduras, Uganda and India to evaluate efficient cooling with local insulation, an air-conditioner and the CoolBot, eventually constructing a cool room in each country.



### Strengthening vegetable farmer groups in Uganda

Kate Scow leads a team of partners from UC Davis, Uganda and the Democratic Republic of Congo that is testing and combining two agricultural development models in efforts to strengthen farmer groups' capacity to grow and profit from indigenous leafy green vegetables and tomatoes.



### Drying seeds in Nepal

Kent Bradford leads an international team that is introducing zeolite drying beads to seed drying systems used by farmers and organizations in Nepal, India, Thailand, Bangladesh, Kenya, Tanzania, Uganda and Rwanda. The desiccant beads provide a widely adaptable way for drying horticultural seeds and maintaining high seed quality during storage.



### Training new postharvest experts in Tanzania

An international team led by Diane Barrett and Lisa Kitinoja opened a Postharvest Training and Services Center in Tanzania and have provided year-long postharvest training for 36 new experts who are now training farmers in seven African countries.



### Engaging students in international development

Through its Trellis Fund projects, Horticulture CRSP matches U.S. graduate students with organizations in developing countries for small horticultural projects. In the first two years of funding, 24 students from UC Davis, Cornell, North Carolina State and University of Hawaii have worked with 24 projects on three continents.

