Horticulture Innovation Lab: Scaling up technologies, research, and solutions

The Feed the Future Innovation Lab for Collaborative Research on Horticulture builds international partnerships for fruit and vegetable research to improve livelihoods in developing countries. Each of our projects includes partners from a U.S. university and from an organization in a Feed the Future focus country. These partnerships resulted in projects that have improved how more than 9,000 practitioners grow, process or market horticultural crops—through adoption of new practices or technologies.

Our projects span the value chain of horticultural enterprises. Our researchers and partners are addressing production and marketing issues, creating better seed systems, reducing postharvest losses, improving extension and transferring innovative technologies. These projects and technologies are scaled through three main channels: our Regional Centers, private sector partnerships and entrepreneurs, and extension and marketing.

Scaling strategy

Horticulture Innovation Lab Regional Centers

The Regional Centers are building partnerships with non-governmental organizations and implementing partners to share horticultural technologies using existing channels.

Examples:
- Collaborating with iDE and North Carolina A&T State University on rainwater harvesting and drip irrigation.
- Demonstrating postharvest and production technologies in Kenya.
- Promoting basic postharvest handling through AgLEARN project with USAID/Asia, the Asian Institute of Technology and Kasetsart University.

Three Regional Centers on three continents are training the next generation of horticulture professionals to understand innovation and technology design across disciplines through collaboration with the D-Lab at UC Davis.

Private sector partnerships and entrepreneurs

In Kenya and Tanzania, A To Z textiles is producing AgroNets to prevent insect damage on high-value horticultural crops. Researchers and their partners are validating this technology and rolling it out to small-scale farmers.

Rhino Research in Thailand has developed an innovative seed-drying product. These zeolite drying beads will help seed producers and retailers improve quality and profits, while supporting small business and entrepreneurship throughout the region.

The CoolBot was developed by Store It Cold as an affordable way for small-scale growers to cool products on their farms. The Horticulture Innovation Lab has tested cool rooms equipped with the CoolBot on three continents. The CoolBot makes cold storage a viable option for small-scale farmers, markets, and distributors.

Extension and marketing

In Southeast Asia, the Horticulture Innovation Lab is researching extension models like farmer field schools and saving groups. By understanding how farmers get and use information, we can improve extension efforts and ease the scale-up of new innovations.

The Participatory Market Chain Approach is being used in Uganda to bring farmers, buyers, wholesalers and vendors together to improve market linkages and sales of fruits and vegetables. We are investigating gendered extension approaches to horticulture by connecting urban dwellers with rural communities to form networks and build leadership capacity to improve local food systems.

Strengthening horticultural value chains can improve marketing and sales for small-scale farmers. In Zambia, SUN International Hotels is working with farmers to source high quality safe fruits and vegetables.

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