



# Colorful Harvest: From Feeding to Nourishing a Growing World

HORTICULTURE RESEARCH FOR DEVELOPMENT CONFERENCE

MARCH 26–27, 2019 • WASHINGTON, D.C. • #HORT4DEV



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# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



## FEED THE FUTURE INNOVATION LAB FOR HORTICULTURE



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# Horticulture Innovation Lab

- ▶ Managed by UC Davis since 2009
- ▶ Developed a portfolio of projects to address needs in horticulture
- ▶ Awards granted to U.S. university researchers to work with developing country partners
- ▶ Awarded \$35 million in core funding



## Horticulture Innovation Lab

- Access knowledge of US universities to address global nutrition security
- Develop and adapt knowledge to address nutrition security challenges
- Collaborative partnerships and capacity building with scientists in developing countries

### Our projects address:

- Production and marketing issues
- Creating better seed systems
- Reducing postharvest losses
- Improving extension and transferring innovative technologies





## Collaborating Universities

- North Carolina State University\*
- University of Florida\*
- University of Hawai'i at Mānoa\*
- Rutgers, the State University of New Jersey
- Kansas State University
- University of Wisconsin-Madison
- Michigan State University
- Penn State University
- Purdue University
- University of California, Davis





# Use of grafted seedlings enhances productivity and quality – and creates jobs



Grafted disease-resistant tomato  
seedlings



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# Youth employment in Guatemala through drip irrigation microenterprise



# Horticulture as an agricultural tool to produce healthful, nutrient-rich foods



African nightshade is among the common leafy African indigenous vegetables that are rich in vitamins and minerals.



Horticulture production provides an opportunity for home gardeners, small-scale farmers, or staple crop farmers to earn more income even on small plots.



Linking farmers to markets in Zambia.



# Constraints and Opportunities for Women's Engagement in Horticulture



# Drying Beads Maintain Product Quality



UC Davis Researcher Dr. Kent Bradford demonstrates the benefits of drying beads to maintain seed quality

# DryCard™ Moisture Sensor

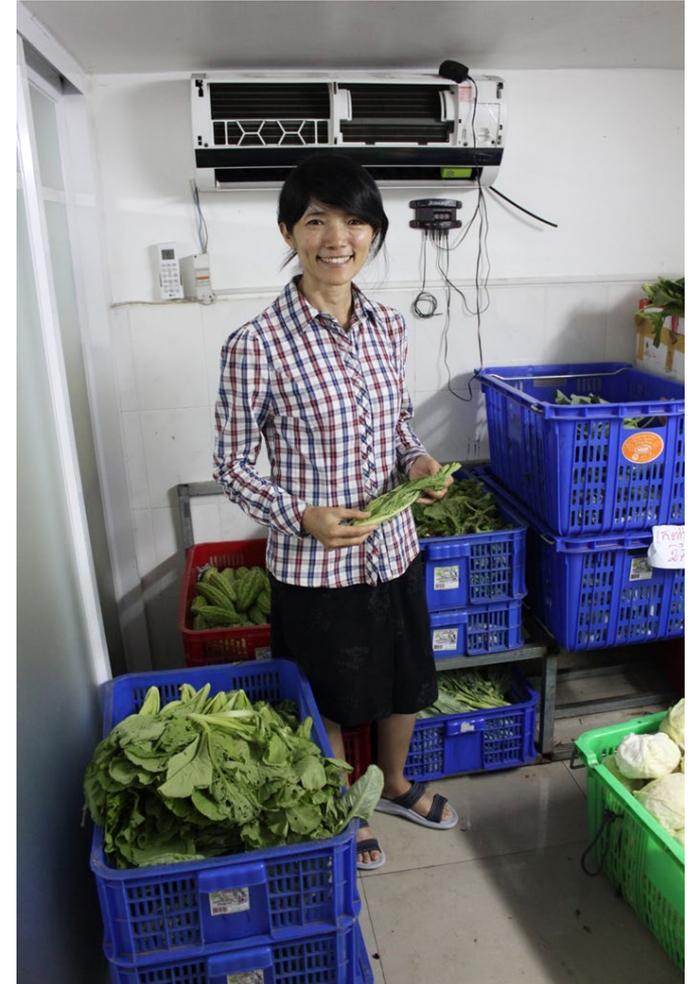


- Based on changing color of cobalt chloride impregnated paper with relative humidity
- The DryCard™ is a simple, inexpensive visual tool to raise awareness about the level of dryness of any dried food.
- Can be reused indefinitely!



# CoolBot Coldrooms

- ▶ Invented by Ron Khosla, a small-scale farmer in U.S.
- ▶ Supports a small business in the U.S. (Store It Cold LLC)
- ▶ Benefits small farms across the globe



# Regional Centers

Research  
Projects

Regional  
Center

Training and  
Extension

Food,  
Nutrition and  
Income  
Security



Panamerican Agricultural School  
Zamorano, Honduras



Kasetsart University  
Thailand

# Horticulture Training and Services Center – Guinea

- Horticulture Assessment
- Economic development for Guinea after Ebola crisis
- Engaging youth with scientists to promote technologies for farmers





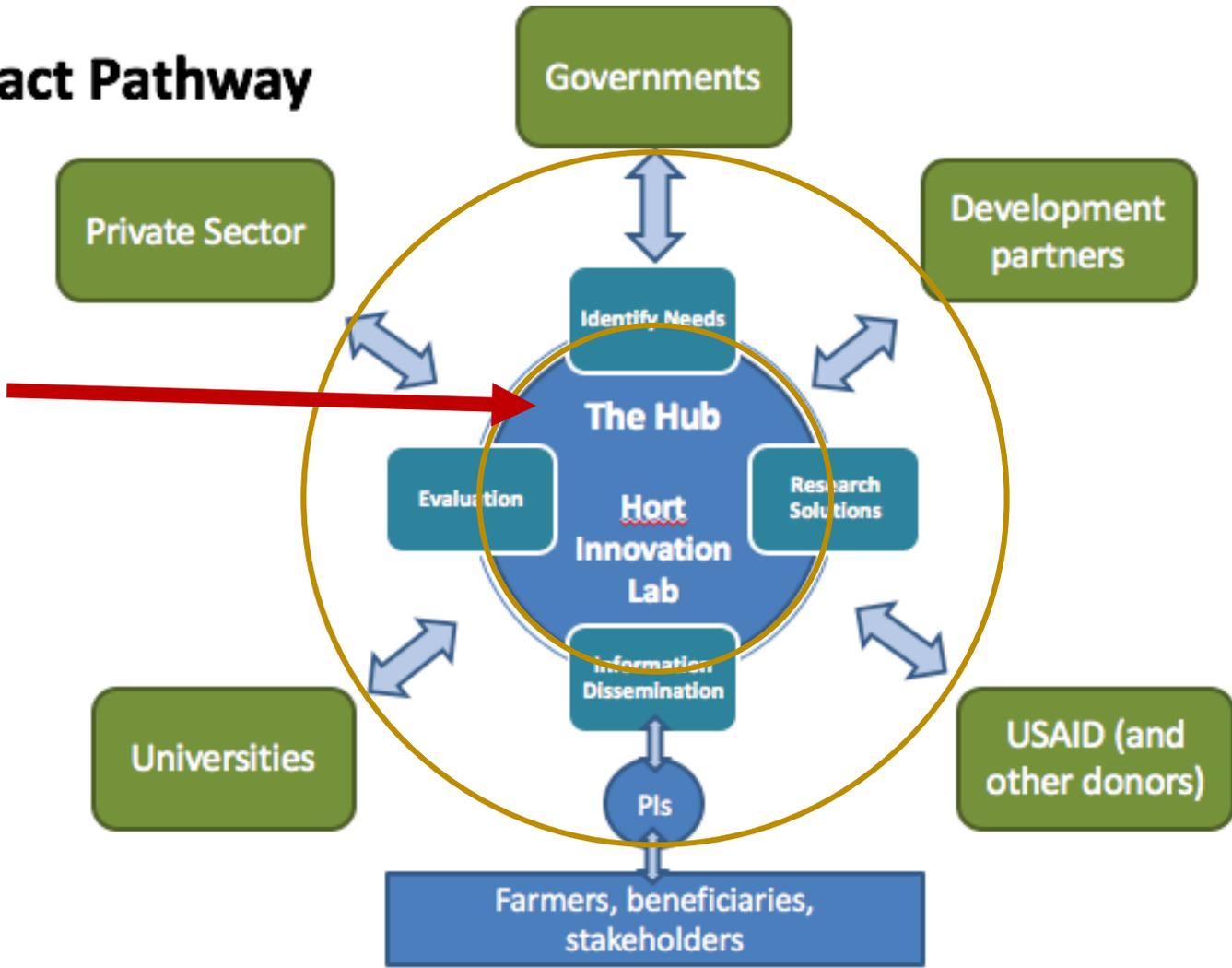
# Trellis Fund



Since 2011, the Horticulture Innovation Lab has completed four rounds of Trellis Fund projects Supporting local organizations while engaging graduate students. Results from the first 47 completed projects include:

- ▶ 7,396 farmer participants (69% women)
- ▶ 219 demonstration plots
- ▶ 238 training and extension meetings

# Impact Pathway



Horticulture  
Innovation Lab  
Network



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## Thank You

For more information:

<http://horticulture.ucdavis.edu>

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- ▶ On [Facebook.com/HortInnovLab](https://www.facebook.com/HortInnovLab)
- ▶ Videos on [YouTube.com/HortCRSP](https://www.youtube.com/HortCRSP)
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