



FEED THE FUTURE

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

FEED THE FUTURE INNOVATION LAB FOR COLLABORATIVE RESEARCH ON HORTICULTURE



Together, we build
international partnerships for
fruit and vegetable research that
improves livelihoods in developing countries.

Dr. Elizabeth Mitcham, Director

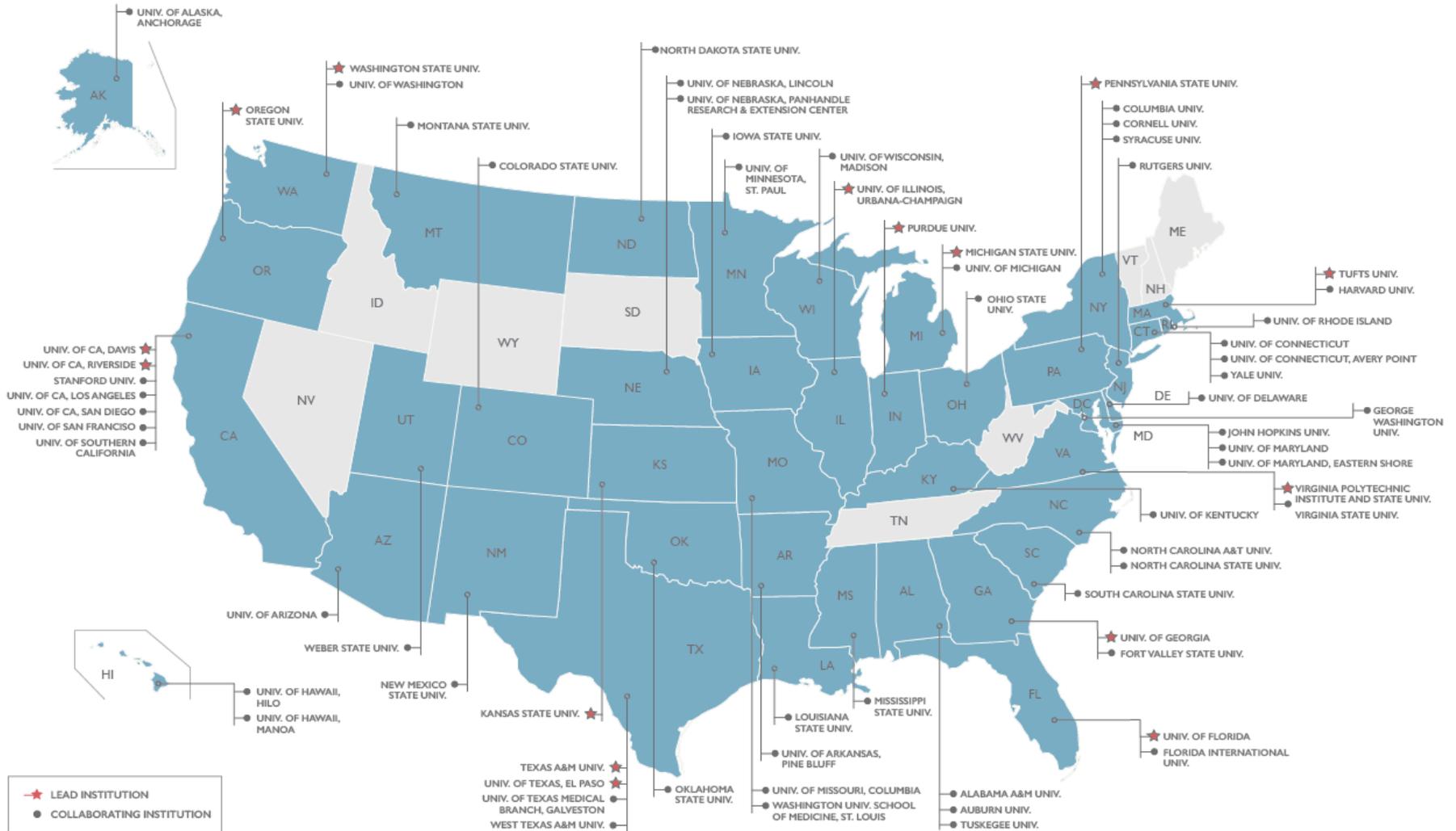


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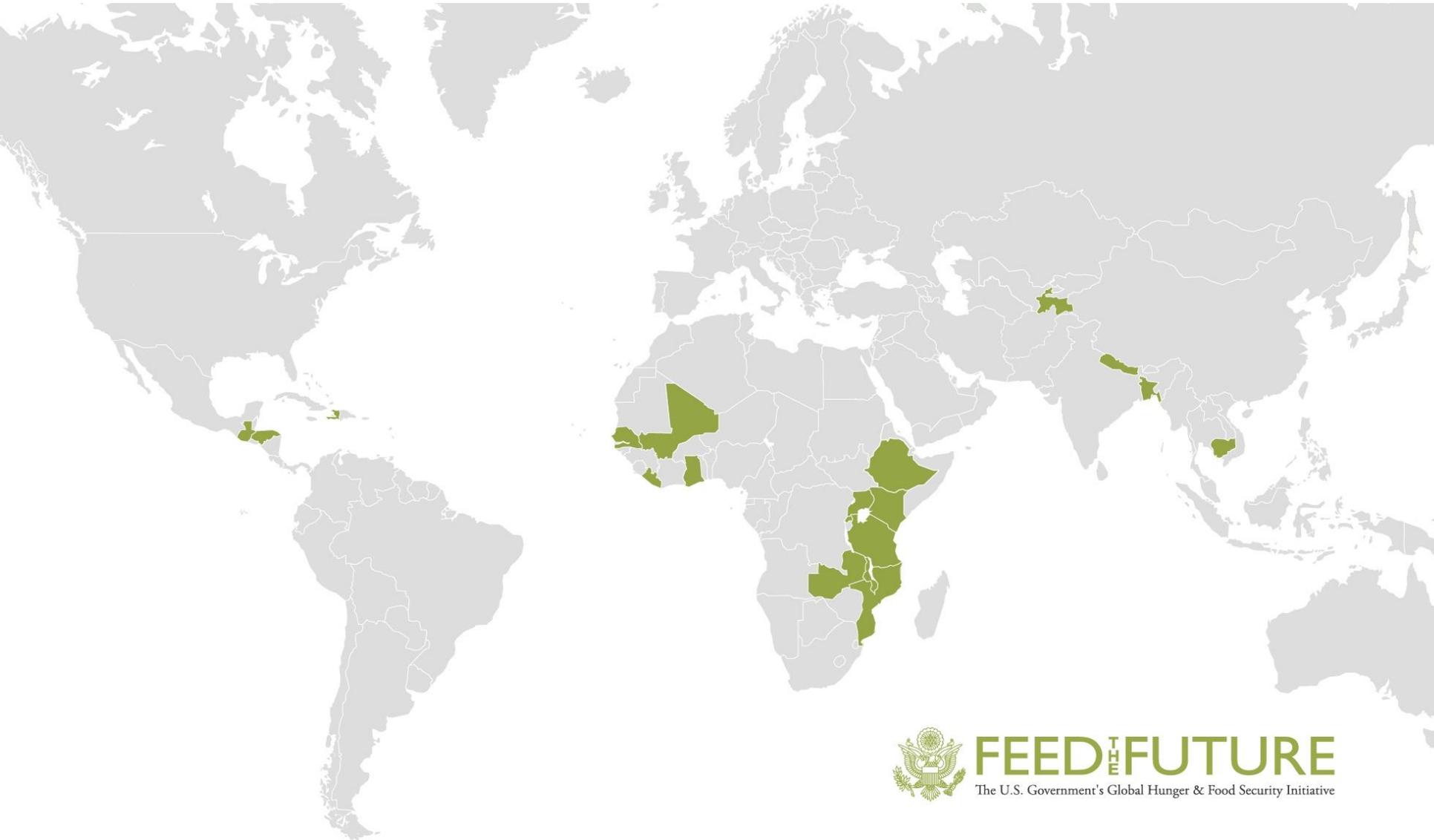
UC DAVIS
UNIVERSITY OF CALIFORNIA

FEED THE FUTURE WORKS WITH U.S. UNIVERSITIES TO FIGHT GLOBAL HUNGER



The Feed the Future initiative partners with universities throughout the world. This is a sampling of university partners located in the United States. For more information and updates, visit www.feedthefuture.gov or follow on Twitter @FeedtheFuture.

Feed the Future Countries

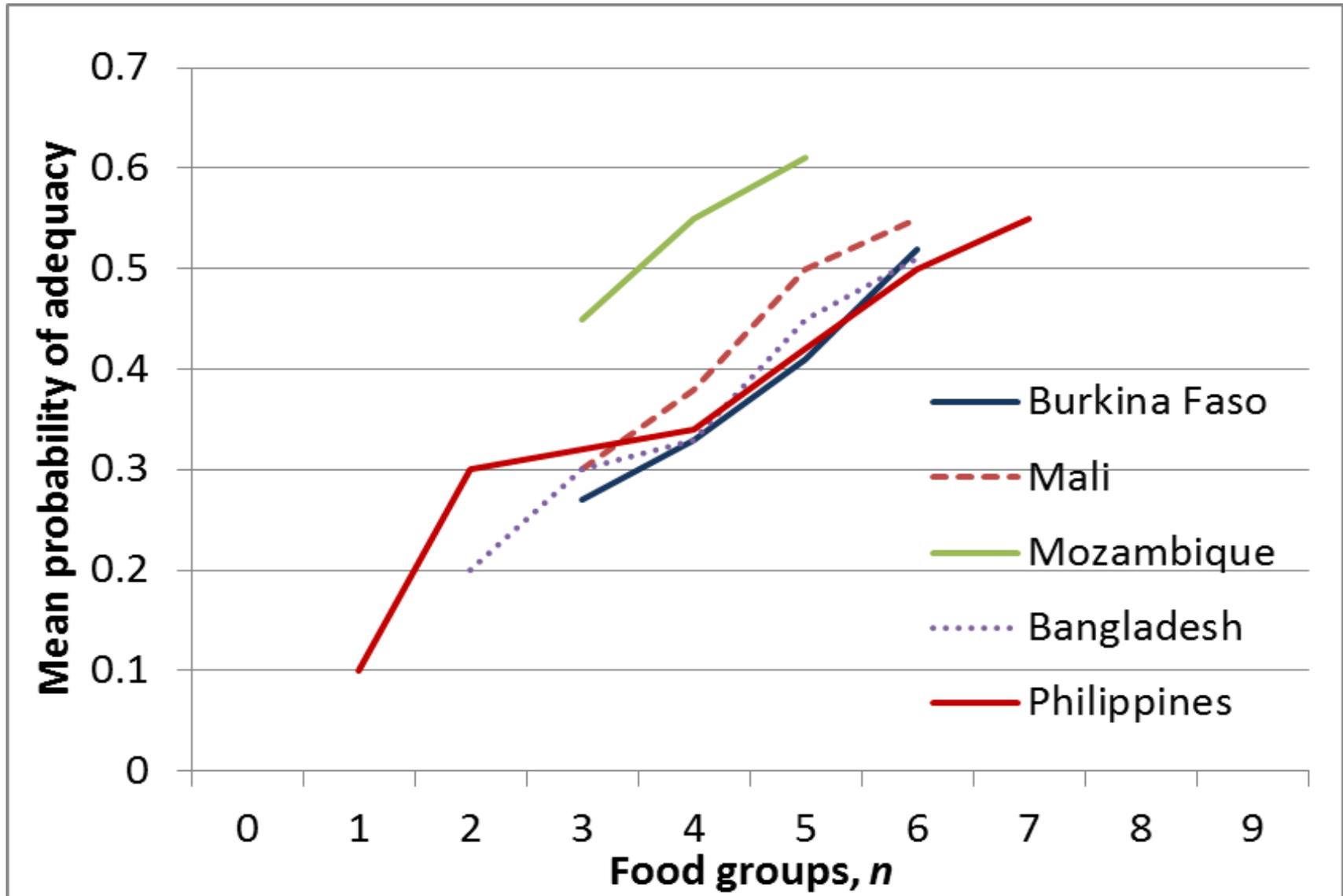




Horticulture Innovation Lab

- ▶ Managed by UC Davis
- ▶ Award grants to US universities working with developing country partners

Enriching Diets





Farmers earn more growing horticultural crops

Country	Difference in Farm Income (%)*
Bangladesh	29
Cambodia	117
Lao PDR	380
South Vietnam	189
North Vietnam	20

*Between Horticulture and Non-Horticulture Crops



Challenges Facing Horticulture

- ▶ By definition, one size does not fit all—in terms of diversity of crops, local adaptation, etc.
- ▶ Need for ongoing local, applied science and science-based extension/advisory services
- ▶ Perishable nature of horticultural crops
- ▶ Additional knowledge/skills needed to be successful.

The Horticulture Innovation Lab

Our projects address:

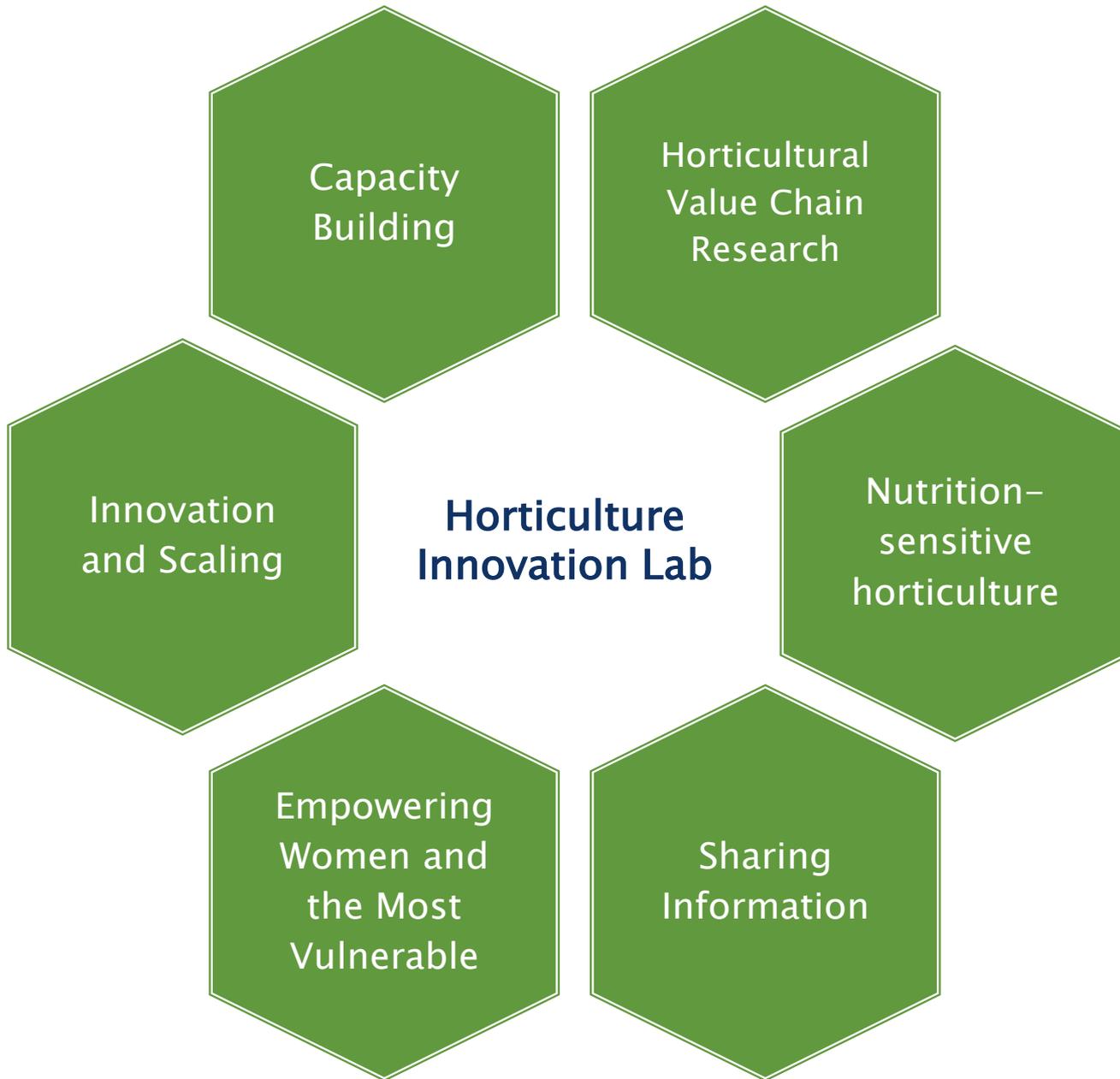
- ▶ Production and marketing issues
- ▶ Creating better seed systems
- ▶ Reducing postharvest losses
- ▶ Improving extension and transferring innovative technologies



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Current Projects – Central America



- Empowering women through horticulture
Honduras
Janelle Larson
The Pennsylvania State University
- Expanding tomato grafting for entrepreneurship
Honduras and Guatemala
James Nienhuis
University of Wisconsin–Madison
- Mas Riego (More Irrigation)
Guatemala
Meagan Terry UC Davis, KSU,
NCA&T, Barbara Ford Peace
Center, Universidad Rafael
Landivar, Zamorano

USAID Focus Topics Moving Forward

– Importance to Horticulture

- ▶ Resiliency
- ▶ Youth
- ▶ Urbanization
- ▶ Food Safety



Resiliency

Mas Riego (more irrigation) project in Guatemala



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Horticulture Assessments

- ▶ Central America
 - Access to credit and insurance
 - Poor access to high-value markets
 - **Climate resiliency– irrigation**
 - Pests, diseases, weeds
 - Lack of local research
 - Postharvest losses and food safety
- ▶ Guinea
 - As above, plus...
 - Sustainable farming techniques
 - Nutrition support – home gardens and BCC
 - Entrepreneurship



Improving Soil & Saving Labor

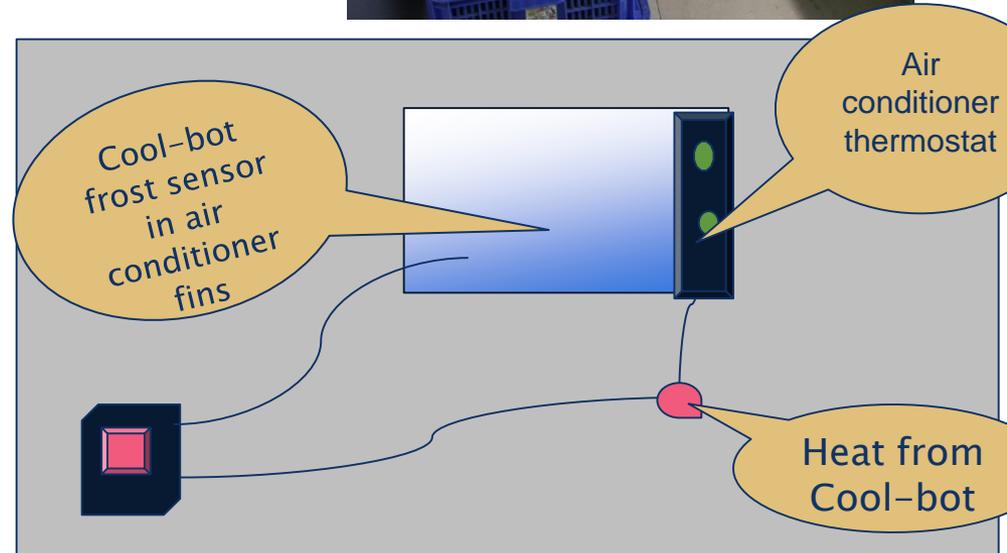


Chimney Dryer

- ▶ Efficient
- ▶ High air speeds



CoolBot and Cold Rooms



Regional Centers

Research
Projects

Regional
Center

Training and
Extension

Food,
Nutrition and
Income
Security



Panamerican Agricultural School
Zamorano, Honduras



Kasetsart University
Thailand



CoolBot® Scaling

- ▶ Demonstrated at Regional Centers and shared with network
- ▶ Improved and adapted (insulated panels, solar)
- ▶ Incorporated by many other projects
- ▶ Assisted Store it Cold LLC to apply for Partnering for Innovation grant
 - Scaling in Honduras
 - Investment capital





Youth

- MasRiego
 - Youth led loan program for drip irrigation
- Guinea
 - Youth led horticulture training and services center



Urbanization

- Integrated animal–horticulture systems research project in Cambodia



Food Safety

Pest Exclusion Nets





Without Nets

With Nets



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Value chain for safe vegetables



Meeting Market Demands



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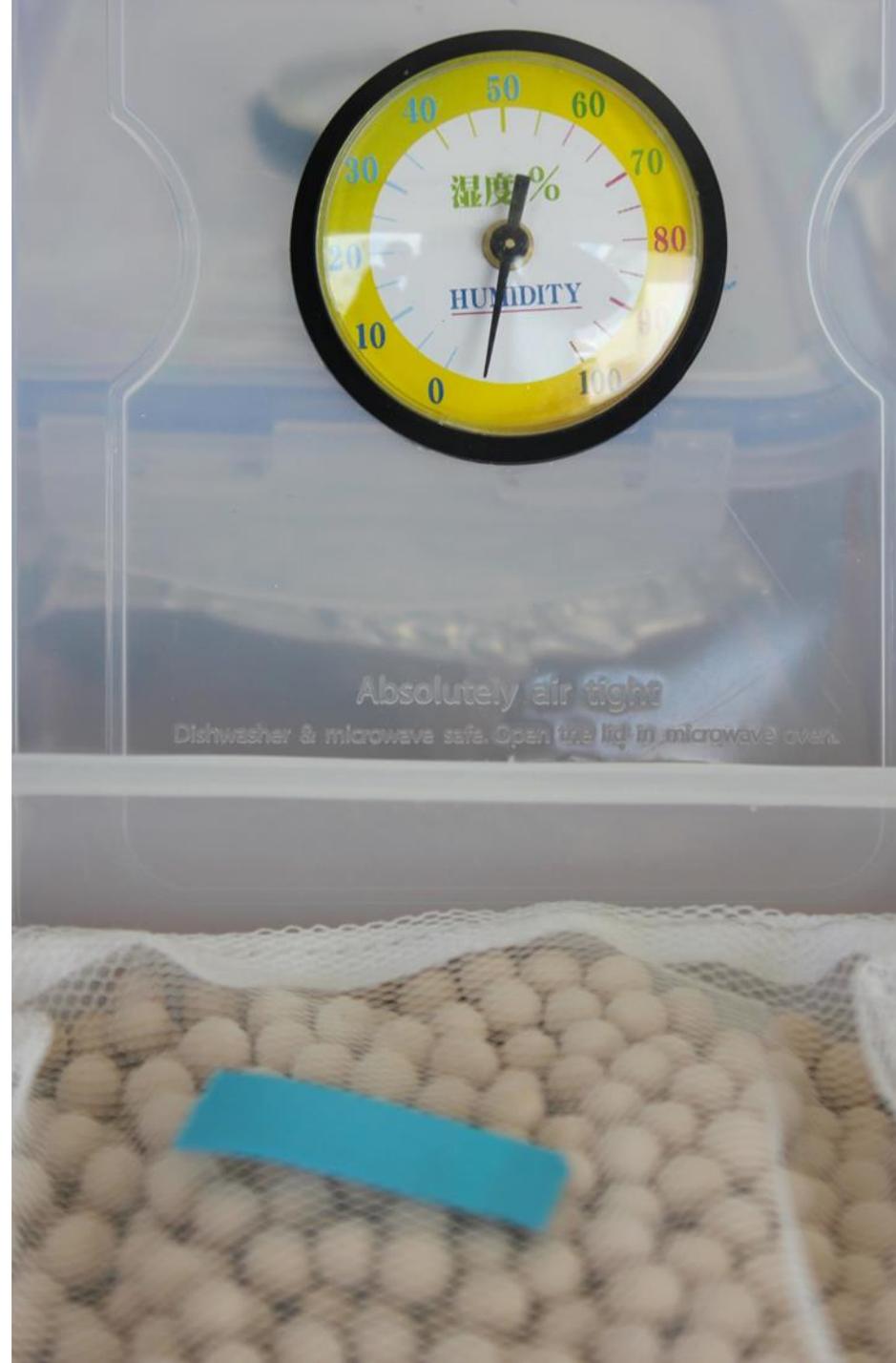
Rhino Research

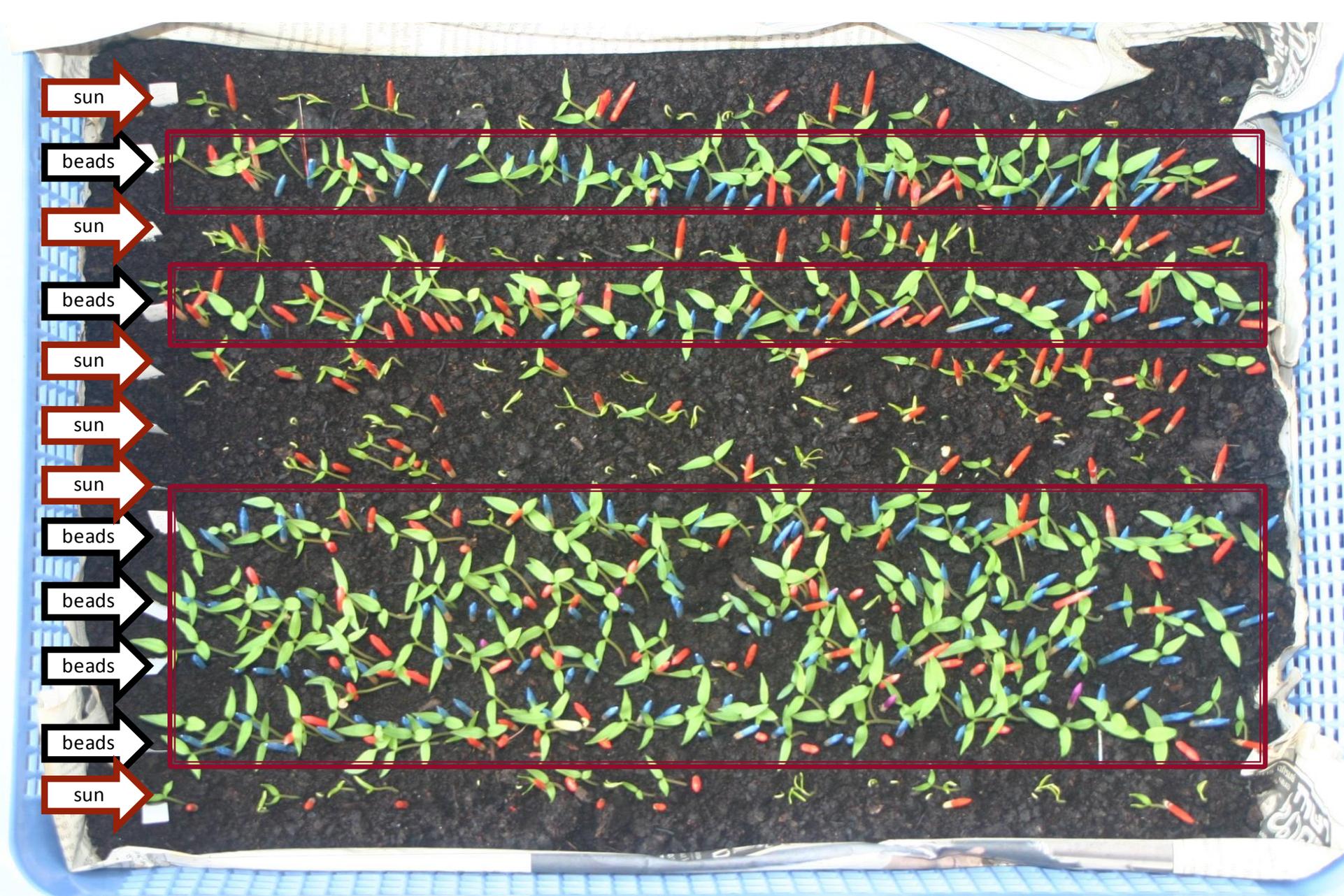
Can dry products to very low moisture content

No aflatoxin or insect damage

Get it Dry!
Keep it Dry!

DRY CHAIN





Introducing the DryCard

Michael Reid & Jim
Thompson

Horticulture Innovation Lab
UC Davis

HORTICULTURE INNOVATION LAB
DryCard™

Weka kadi hii katika gunia au chombo ulichohifadhia Nafaka Na kagua Kiwango cha unyewu baada ya saa Moja

Je mahindi yako Ni makavu vya kutosha ili kuyahifadhi?

USAID UCDAVIS

Unyewu uliopo katikati ya kadi hi hubadilika rangi kutoka blue kuwa pinki kadiri unyewu unavyoongezeka. Chakula kilichohifadhiwa kwenye unyewu zaidi ya 65% zitapata ukungu, na hivyo kuchafuliwa na sumu kuu hata Aflatoxin.

Kwa habari zaidi barua pepe: marcel@ucrenhis.edu au jthompson@ucdavis.edu

Usiweke kwenye maji
Imewekwa madini ya cobalt chloride
Itumike kabla ya Desemba 2016



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Improving nutrition with African indigenous vegetables

- ▶ Varieties
- ▶ Production practices
- ▶ Marketing
- ▶ Nutritional value



Thank you!

For more information:

<http://horticulture.ucdavis.edu>

- ▶ Connect on Twitter: [@HortInnovLab](https://twitter.com/HortInnovLab)
- ▶ On [Facebook.com/HortInnovLab](https://www.facebook.com/HortInnovLab)
- ▶ Videos on [YouTube.com/HortCRSP](https://www.youtube.com/HortCRSP)
- ▶ Subscribe to our newsletter:
<http://blog.horticulture.ucdavis.edu>

