

Horticulture Innovation Lab



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

Dr. Elizabeth Mitcham, Director



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Feed the Future Innovation Labs at the University of California

- ▶ Assets & Market Access – BASIS (UC Davis)
- ▶ Climate Resilient Chickpea (UC Davis)
- ▶ Climate Resilient Millet (UC Davis)
- ▶ Genomics to Improve Poultry (UC Davis)
- ▶ Horticulture (UC Davis)
- ▶ Climate Resilient Cowpea (UC Riverside)



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Benefits of Innovation Labs

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



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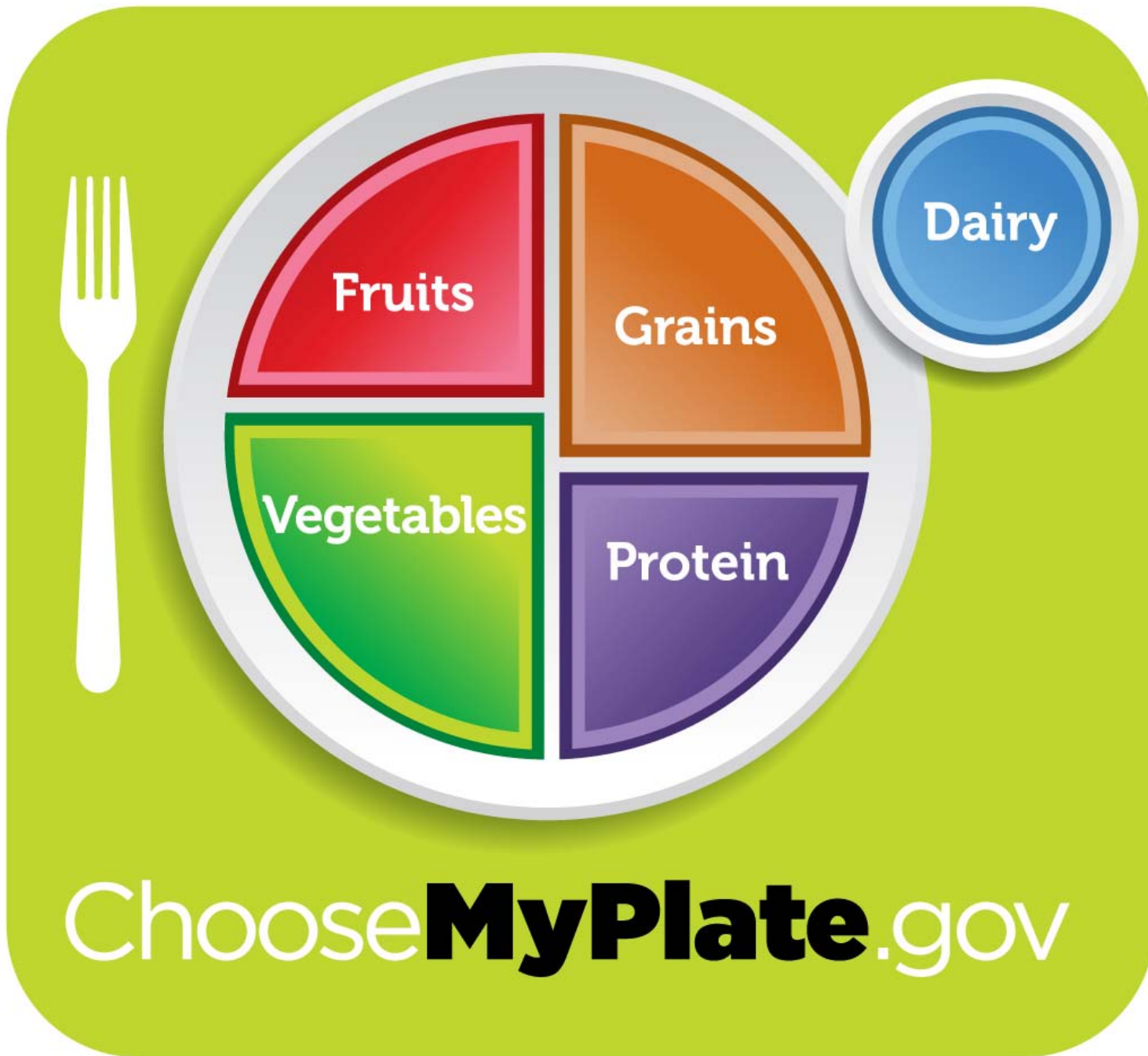
Why Horticulture?



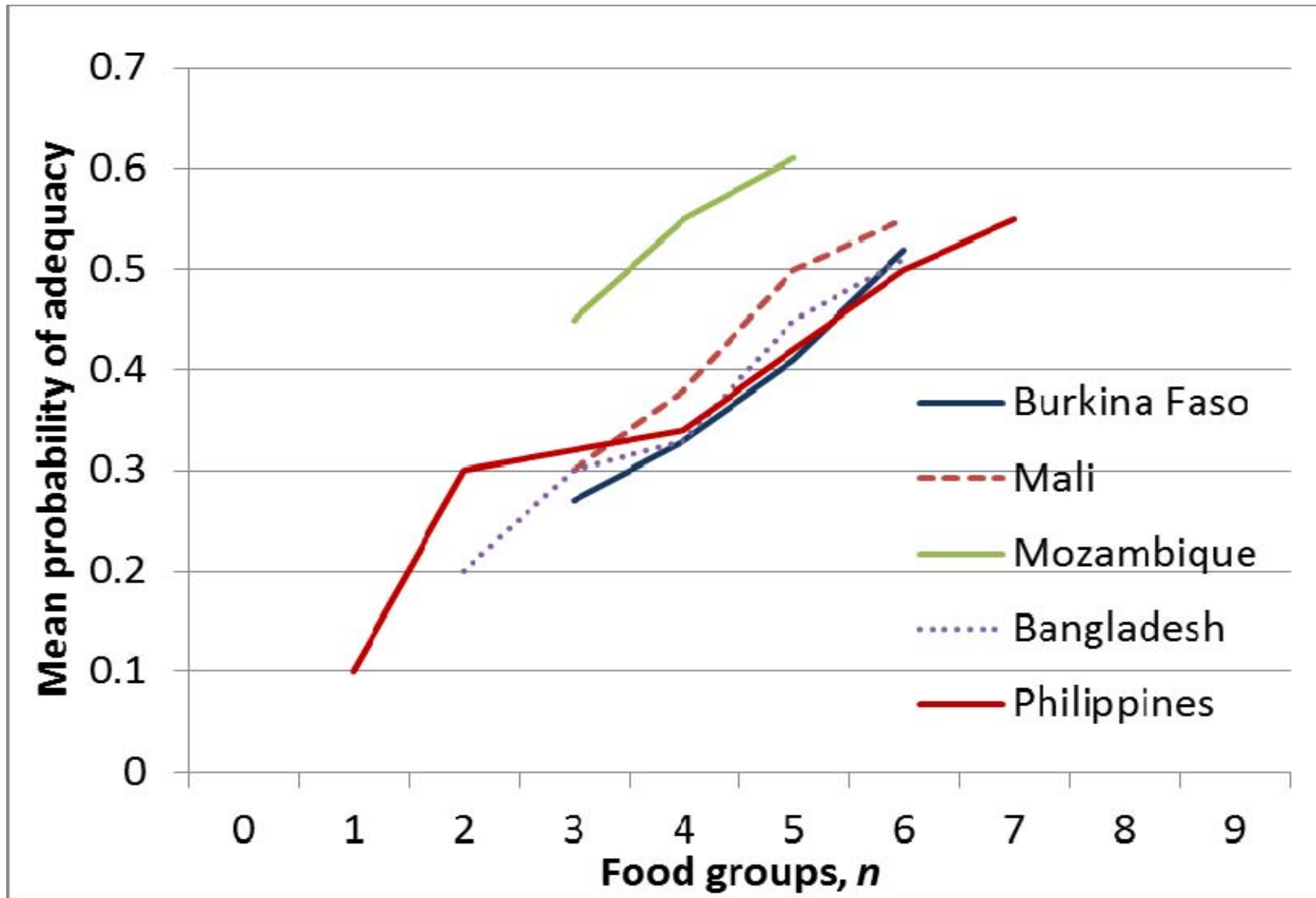
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Enriching Diets



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Increasing Incomes

“This is where the money is.”
–Melanie Chipungu

*Leader
Mitengo Women’s group
Lusaka, Zambia*



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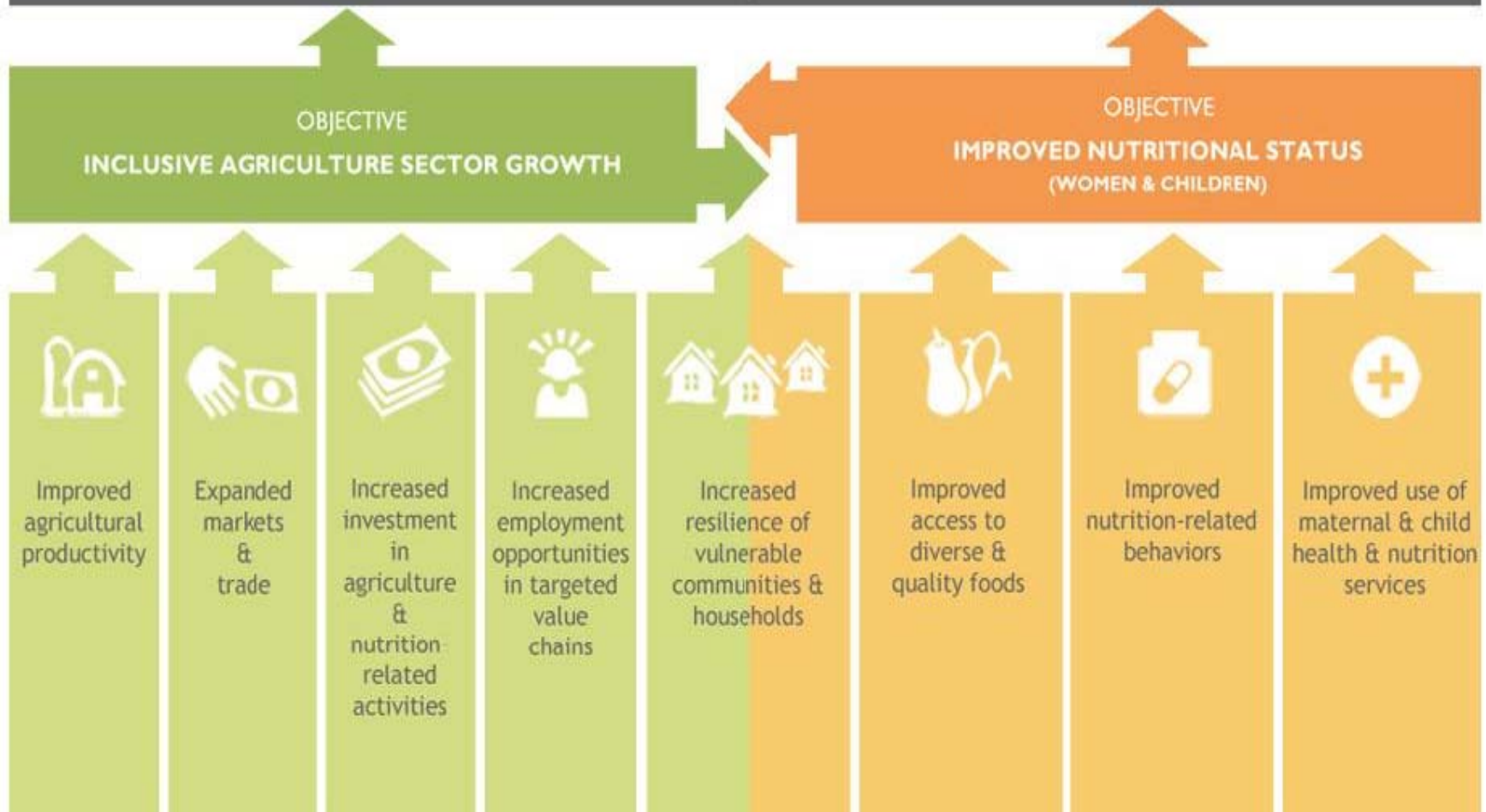
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FEED THE FUTURE GOAL

Sustainably Reduce Global Poverty & Hunger

INDICATORS:

Prevalence of poverty &
Prevalence of underweight & stunted children

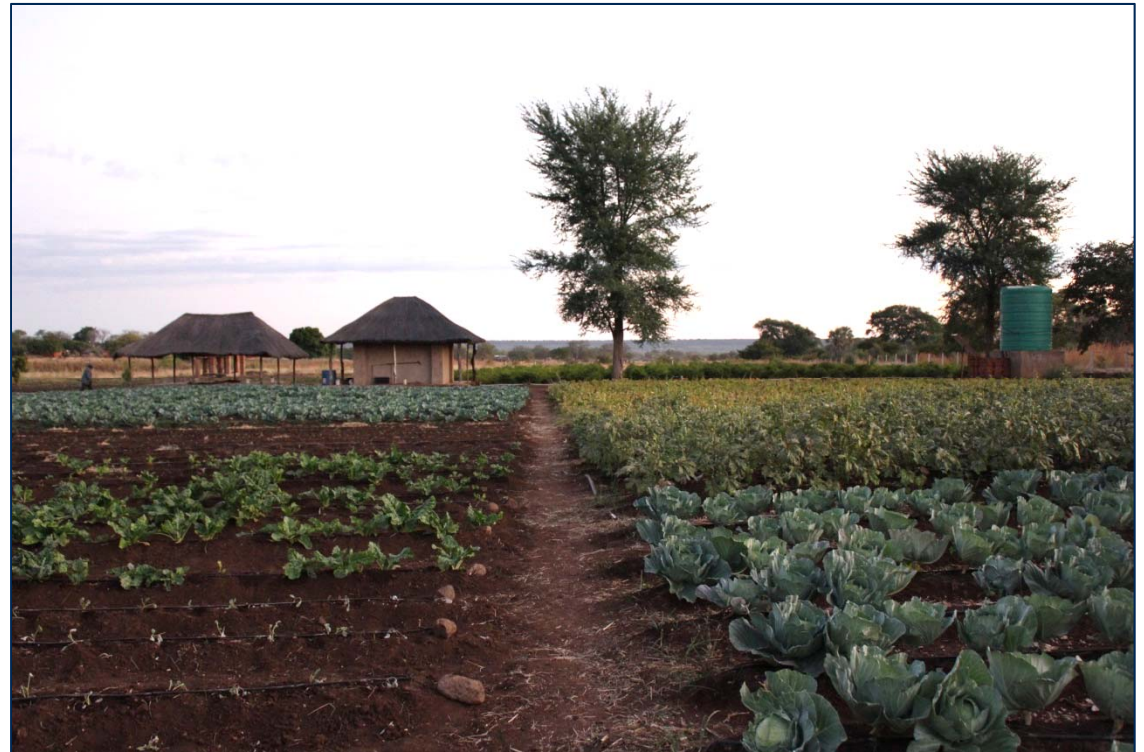


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Conservation agriculture for vegetable production



Training villagers to grow vegetables for sale to local hotels and supermarkets



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Marita Cantwell, UC Davis researcher, teaches Tanzanians about temperature management after harvest

Postharvest training in 7 African countries



Postharvest trainers and Diane Barrett, UC Davis researcher, prepare amaranth leaves for drying



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Small-scale irrigation solutions



Kate Scow (with backpack), UC Davis researcher, examines existing irrigation infrastructure in Uganda



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Value chain for safe vegetables



Cary Trexler and David Miller promoted safe vegetable production in Vietnam and Cambodia and developed shared interest savings groups



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Chimney Dryer

- ▶ Efficient
- ▶ High air speeds



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Innovative Cold-Storage Technology

How one farmer's invention...
universityofcalifornia.edu/news/how-one-farmers-invention-reducing-postharvest-losses-around-world

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News > How one farmer's invention is reducing postharvest losses around the world

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How one farmer's invention is reducing postharvest losses around the world

By Brenda Dawson, UC Davis/UC ANR
Wednesday, March 30, 2016



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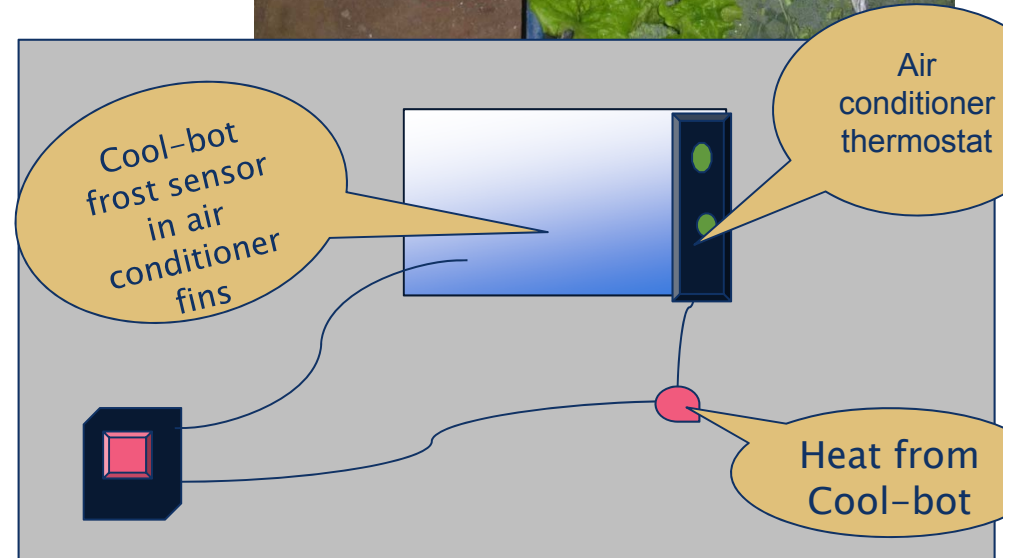


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CoolBot and Cold Rooms





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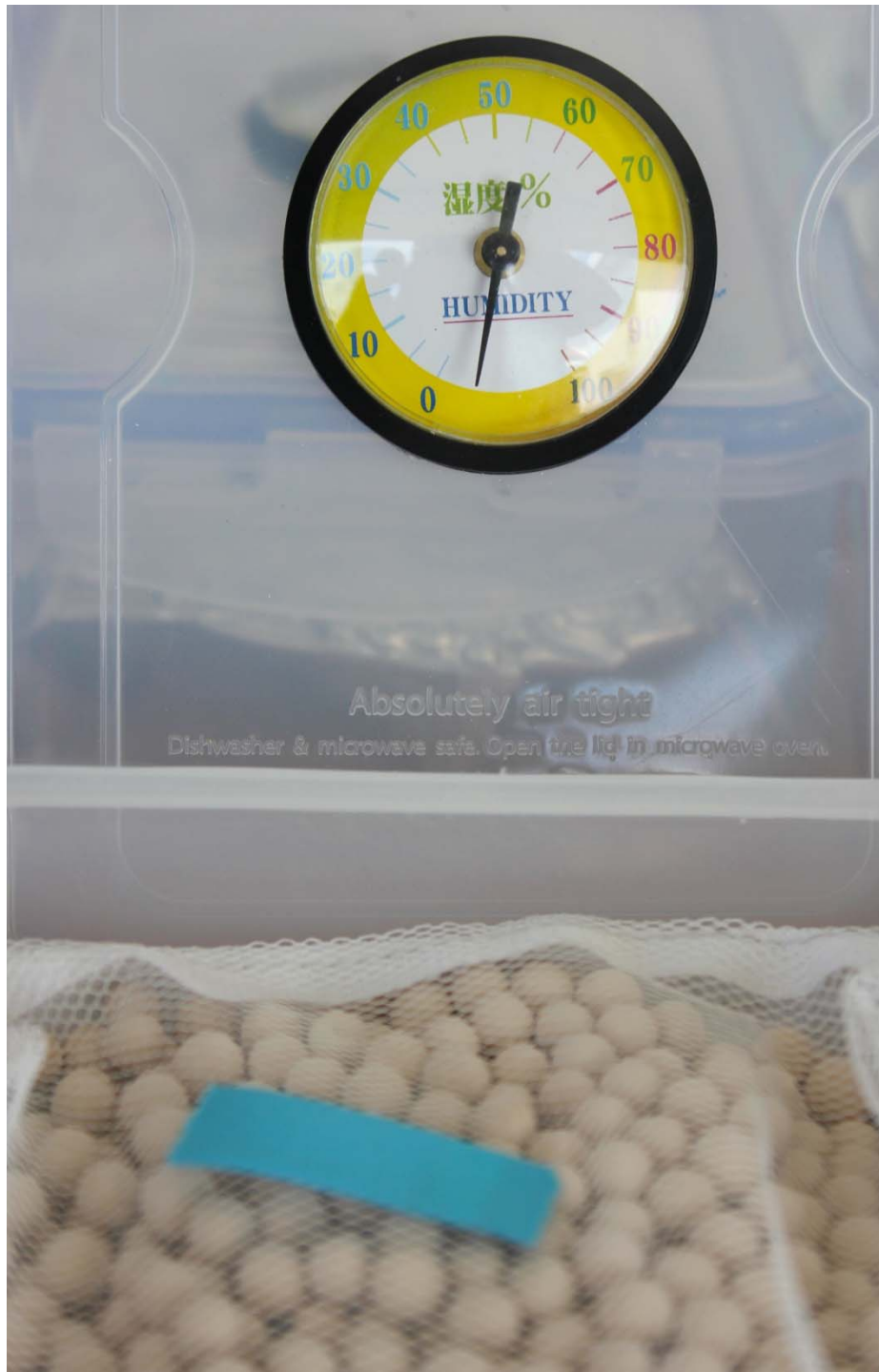
Drying beads for seed storage



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- Can dry products to very low moisture content
- Maintains seed quality
- No aflatoxin or insect damage
- Vegetable seeds
- Dried vegetables and fruit
- Dried peanuts



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Student Engagement



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September 2012

Mas Riego (more irrigation) project in Guatemala



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Value to Domestic Farmers

- ▶ Growing number of small farms in US
 - Nearly 1200 technologies under research or field testing
 - More than 700 technologies available for transfer
- ▶ Focus of research on improved postharvest handling and cold-chain
 - 30–80% of produce is lost
 - USDA pledge to reduce by 50% in 15 years
 - Sustainable Development Goals pledge



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Value to California

- ▶ California produces more horticulture crops than any other state
- ▶ The Horticulture Innovation Lab has invested 37 million in horticulture research
- ▶ Researchers at Californian institutions competitively compete to lead our research efforts
- ▶ We contribute what we learn to our body of knowledge here, bringing new ideas and technologies to California farmers
- ▶ We help to internationalize the university, developing faculty and students who are more aware of world issues.



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Thank you!

For more information:

<http://horticulture.ucdavis.edu>

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