

Innovative potato storage for smallholder farmers in Bangladesh



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Objectives

- Improve the livelihood of small-scale potato farmers in southern Bangladesh by enabling them to store their own potatoes, thus reducing the cost of seed potatoes, and realizing a better price for their table ('ware') potatoes
- Demonstrate the value of cool storage for spreading the season of perishable vegetables

Strategy

- We proposed the use of CoolBot storage units (which use a CoolBot controller to control a standard room Air Conditioner) to improve the usual 'household' storage of potatoes
- USAID requested a comparison with simple 'ambient' storage and 'improved ambient' storage systems designed by BRAC, a local NGO.



Ambient store CoolBot store Improved ambient store

First steps

- Community organization
- Three target districts in the South
- Goal to seek farmer buy-in & include women farmers



CoolBot room construction, Jhikargacha



Issues

- Used imported insulated panels from India (time, cost, customs, transport issues)
- Electricity availability and reliability a major problem
- Set up one room to operate on solar power
- Had to change A/C units (first sourced unit didn't work with the CoolBot controller)
- Rooms now working satisfactorily

Potato harvest

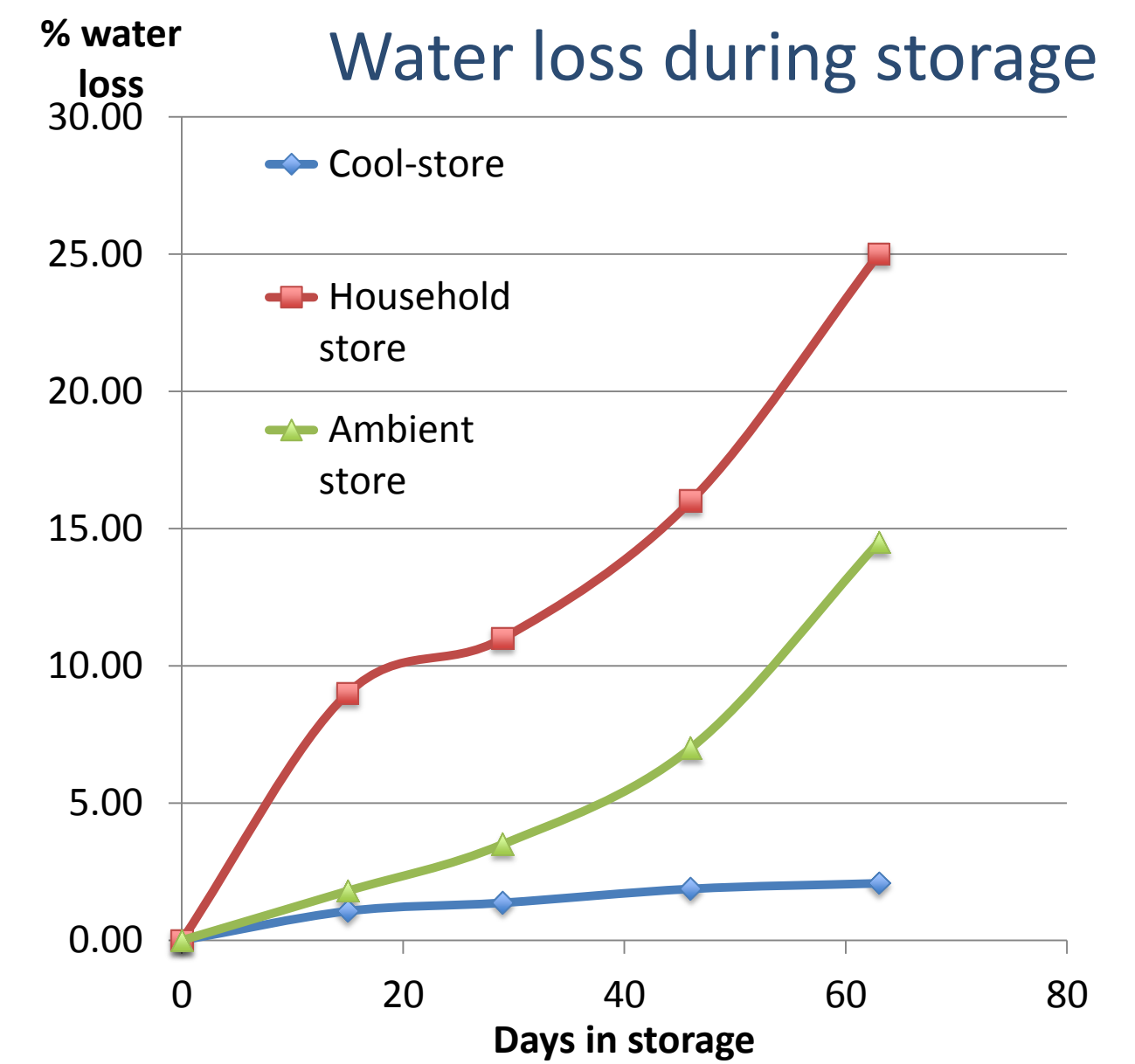


Storage experiments



U.C. Davis project scientist **Amrita Mukherjee** working with CIP staff and farmer collaborators to reach consensus on community involvement (left) and (above) to randomize harvested potatoes into samples for household, 'ambient' and cool storage.

Water loss during storage



Household and 'ambient' storage for 3 months



Cool storage for 3 months



Ongoing experiments

- Storage of cool season and warm season vegetables

Coolbot-stored eggplant 15 days



Ambient-stored eggplant 15 days



- Preparing for the next potato harvest

Curing, Sprout control, Seed storage