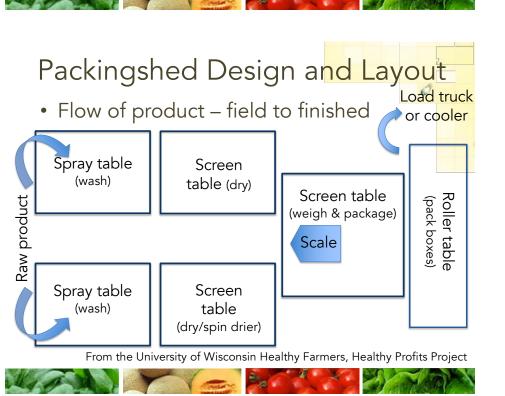
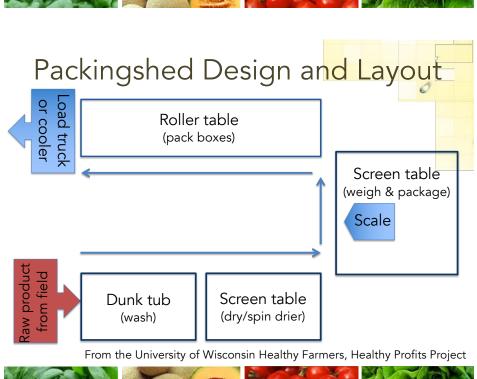
What to Consider When Building or Renovating a Packinghouse

Annette Wszelaki + Faith Critzer, Vegetable Extension Specialist + Food Safety Extension Specialist

Giving Circle Packinghouse Grant

- Grant provided funds to refurbish the packinghouse to meet best practices in food safety design
- Paved the way to using this facility as a training space





Tenants of Sanitary Design

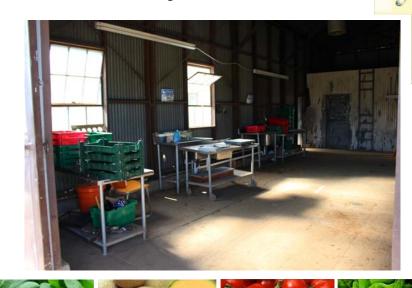
- Easily cleanable
 - Non-porous surfaces that can be cleaned after use
- Removal of harborage points
 - Take away the space that can harbor plant material, dirt, and ultimately attract insects and rodents
- Provide proper environmental controls
 - Walls and doors that keep wildlife out when not in use
 - Lighting so that workers can easily conduct their tasks
- Packing environment does not contribute hazards
 - Flaking paint, glass



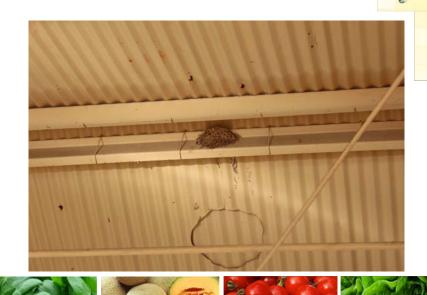




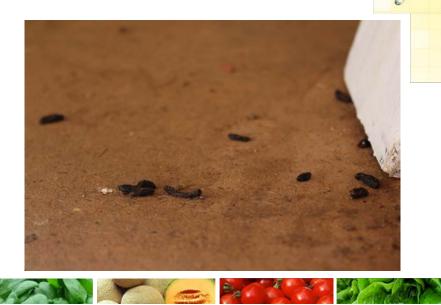
Easily Cleanable







Removal of Harborage Points





Removal of Harborage Points





Provide Proper Environmental Controls

& Not Contributing to Hazards



Provide Proper Environmental Controls

& Not Contributing to Hazards



Packing Environment Does
Not Contribute Hazards

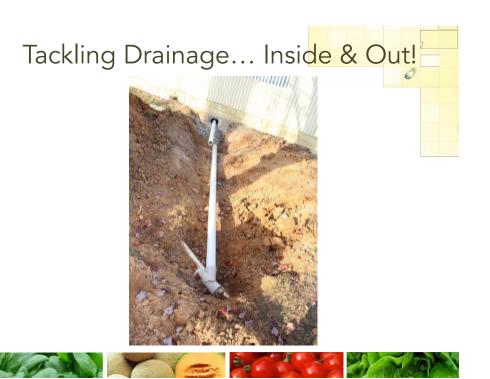






Outdoor Improvements

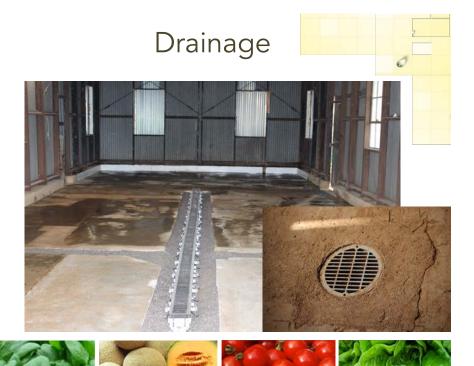




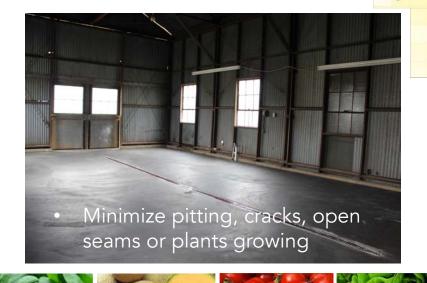




- Cleanable and prevent pest entry
- Minimize standing water



Concrete floors



New Ceiling and Walls



Insulated Cooler and Packinghouse







Electrical Updates



Walls, roof supports, doors & partitions

- Easily cleaned
- Kept as dry as possible





- –Minimize buildup of dirt & condensation
- Protect food contact surfaces, produce and packaging from contamination
- Shatter proof bulbs or protective coverings











Back flow device for water system and hoses





- Location
 - Adjacent land use
- Remove litter and waste
- Cut weeds/grass around building
- Roads, yards, parking lots should be maintained to minimize dust
- Off season
 - Protect from pests
 - Open, screened, enclosed?



Equipment and Materials

- Surfaces
 - Non-toxic, non-absorbent, durable, smooth, and easily cleaned and sanitized
 - No wood or carpet (no porous materials)
 - Avoid use of hollow structures
 - Glass or plastic on equipment should be shatter-proof or covered
- Unused or equipment not in use should be removed from the production area and stored appropriately







Think how product moves through your packing area...

- Does your produce flow protect against contamination?
- What can you change right now?
- What do you need to change that requires some planning?









Acknowledgements

- Larry Kohl, Delhaize America,
 Director Food Safety & Quality Assurance
- Keith Schneider and Michelle Danyluk, University of Florida
- Chris Gunter, Diane Ducharme, Ben Chapman, Theodore A. Feitshans, Rod Rejesus, North Carolina State University

Thank you to:

- Joe Sarten and his team
 - facility renovation design and implementation
- UT East Tennessee Research and Education Center
 - Dr. Bobby Simpson, Director
 - Bill Lively, Organic Crops Unit Manager





Thank you! Questions?

