



- Packing Shed and Vegetable Storage at Patchwork Green Farm
- Farm and marketing overview
- Packing shed walk-through in pictures
- Why good storage is essential
- Our walk-in cooler
- Our root cellar
- Facility considerations: Flow, traffic pattern, layout, access
- Costs
- Questions and Discussion

Patchwork Green Farm  
22 years of farming organic vegetables for our  
Decorah community





# MARKETS

## 2019-2020

- Decorah Farmers' Market
- Oneota Food Coop
- Restaurants and Caterers
- Food Hub



“AS A FARMER, YOU ARE A MANAGER OF RISK”

PAUL ARNOLD OF PLEASANT VALLEY FARM, NY

TYPES OF RISK:

FINANCIAL

LABOR

MANAGEMENT

FOOD PREP (SAFETY)

STORAGE



## ACCESS AND SITING OF A NEW FACILITY

WATER & ELECTRICITY

PROXIMITY TO PRODUCTION AREA

FLOW FROM FIELD TO PREP AREA TO STORAGE TO MARKET





## 2015: THE NEW PACKING SHED

INDOOR SPACE: 21' X 24'

COVERED OUTDOOR SPACE: 11' X 24'

2 DOORS, 2 WINDOWS





# FIRST UP: WASH YOUR HANDS!

- Water
- Soap
- Nail Brush
- Towels
- Waste Basket





# STAINLESS STEEL SINKS

- Multiple basins
- Easy to clean
- Consider Drainage





# OVERHEAD HOSE

- \$200 kit from Johnny's
- 50' hose, cable, hangers, pulleys
- One-handed and no-handed washing





Useful tables for your system



Container storage and the whiteboard





# Doors, Floors and Electric





# LIGHTING & CEILING

- Pay for Quality LED Lights
- Consider shadows
- Screening for outdoor space (GAP)





## INSIDE THE PACKING SHED

INSULATED & PEST-FREE  
EASY TO WASH/CLEAN  
TWO DOORS  
STORAGE  
WALK-IN COOLER  
INDOOR WASH AREA  
STABLE TEMPERATURE





# INDOOR FLOOR DRAIN

WHERE DOES IT  
DRAIN?

SEDIMENT BUCKET  
OR TRENCH DRAIN?





# WALK-IN COOLER

OVERSIZE COMPRESSOR:  
USED ARE FINE!

OUTDOOR CONDENSER

INSULATED, LEVEL FLOOR





# MULTIPLE STORAGE OPTIONS

- Short-term vs. Long-term storage needs
- Temperature
- Humidity
- Ease of access



# Root Cellar



16' X 11' interior space  
Insulated Concrete Walls (ICF)  
Electricity - fans, outlets, lights





# EXTERIOR SLIDING DOOR: 6' 'AIRLOCK' 5' COOLER DOOR





# The CoolBot



Large AC unit

\$400 CoolBot sensor

Easy to maintain  
temperatures in the 30's



# FRESH AIR

TWO INTAKE PIPES

FAN IN ONE PIPE

AIR THROUGH COOLBOT

TEMP SENSOR ON FAN





EASY TO WASH SURFACES

- \*METAL SHEETING ON  
THE CEILING
- \*DAIRY PANELS  
(TEXTURED POLYWALL)
- \*SLOPED FLOOR





# Humidity control





# DESIGNING YOUR FACILITY

- Layout: plan for the next 20 years (flexibility of spaces)
- Traffic Patterns: current pathways/anticipated pathways
- Flow: clear, logical, ergonomic flow from field to delivery
- Access - door location and count, handles, width
  - - shortest distance to coolers/containers/water



# COST

- Root Cellar: \$15,000
  - Includes construction, doors, electric
- Packing Shed: \$45,000
  - Includes water line, electric, concrete, construction, gutters, insulation



# LESSONS LEARNED

- Door handles and stops
- Cool-bot insulation in the winter - stop the draft.
- Plumbing - do it right.
- Brushed concrete at root cellar entrance
- Electric is expensive!



