

Water & Salt Conservation Gedney Foods Company

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Driven to DiscoverSM

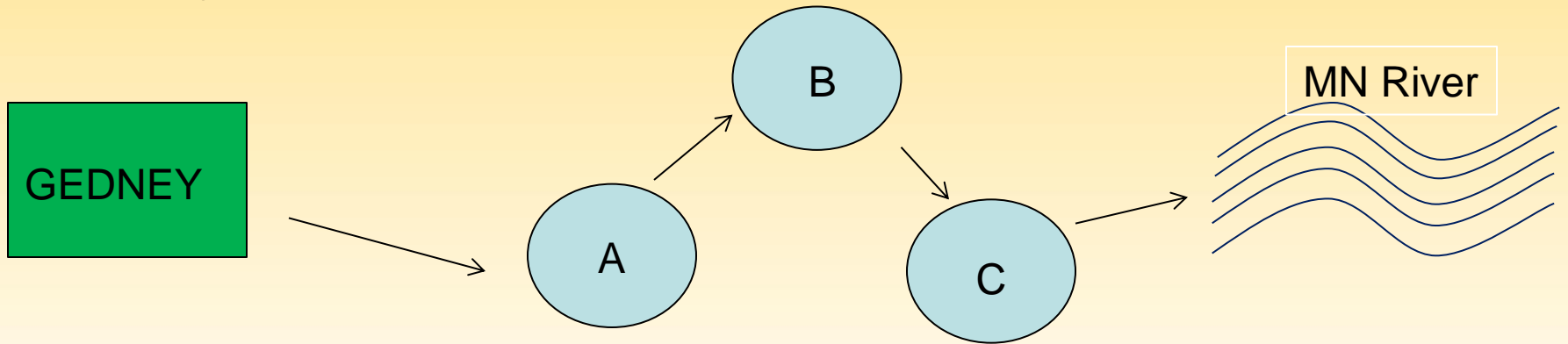
Company Overview

- Pickling Plant
 - Fermented
 - Fresh Pack
 - Relish, Condiments, Preservatives



Motivations for Change

- Doubled production in past two years
- Conserve well water
- Limited capacity wastewater disposal system



Reasons for MnTAP Assistance

- Audit water usage
- Investigate water/salt conservation methods
- Evaluate costs and be a part of implementation processes
- Investigate impact of salt on wastewater system

Approach

- Understand processes
- Talk with staff
- Discuss with other companies
- Monitor Processes



Pasteurizers

- A-line: Hot Water
- B-line: Steam



Pasteurizers (cont.)

- Opportunity
 - Large amount of hot overflow water from B-line
- Solution
 - Redirect B-line overflow to be used as makeup water for A-line
- Savings
 - 22,000 therms → \$10,600/year
 - 3,085,000 gallons water

Fermentation Tank Farm

- ~150 tanks/year
- 360,000 lbs. salt & 360,000 gallons of water sent to waste stream

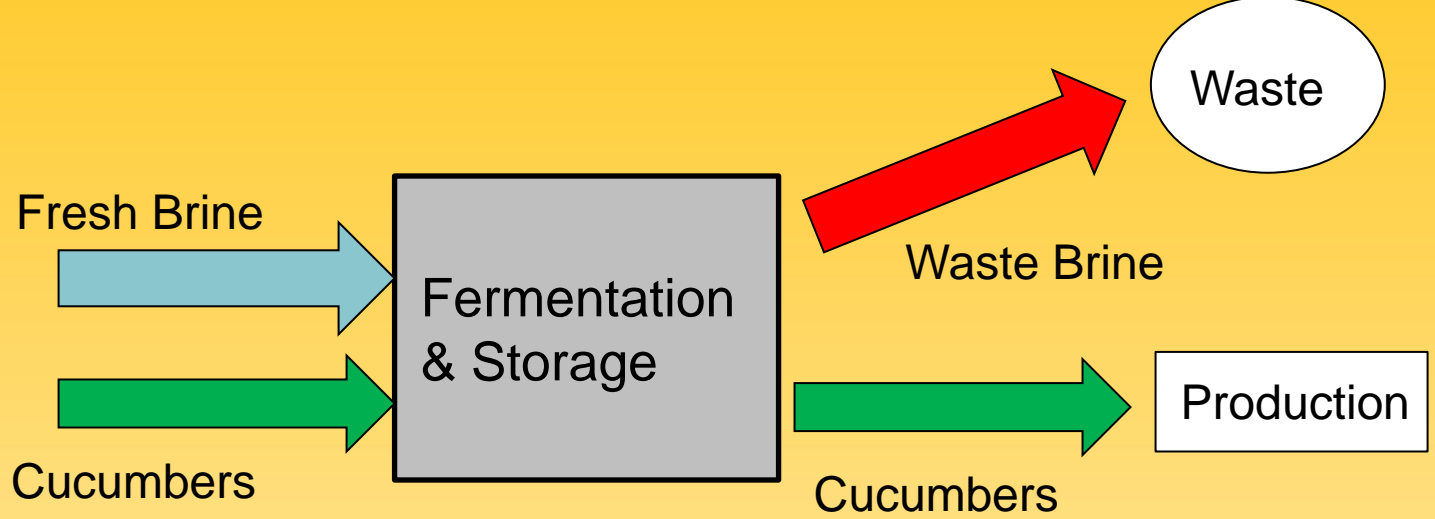


Fermentation Tank Farm: Reuse

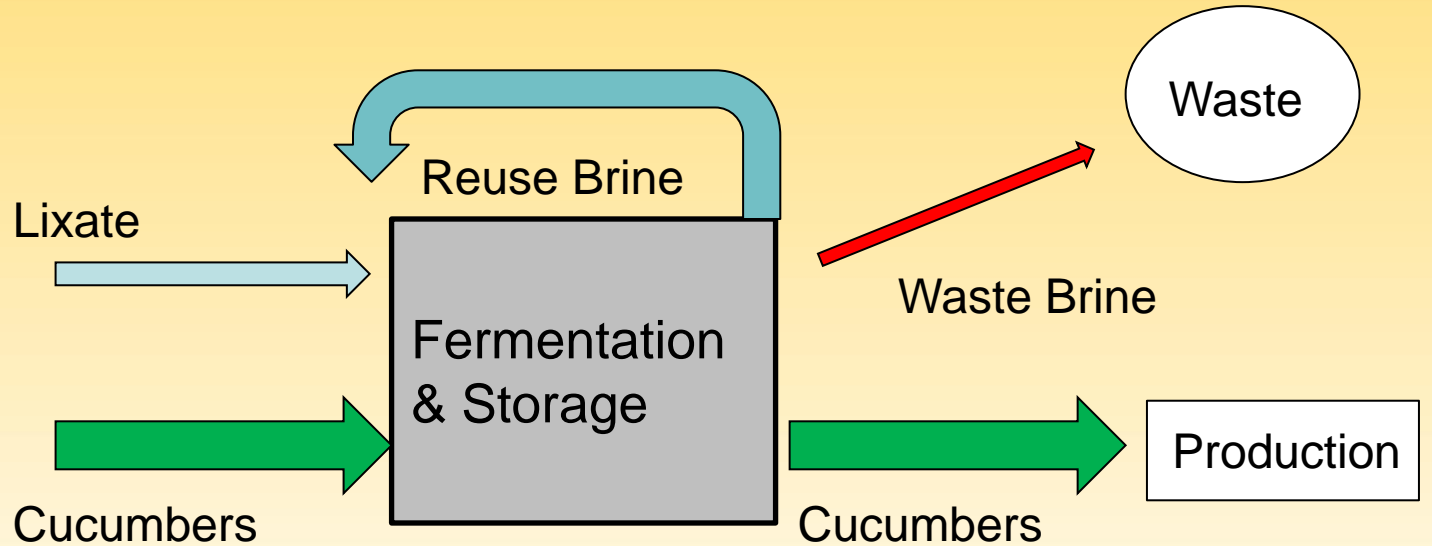
- Opportunity
 - Fresh brine made for each tank
- Solution
 - Reuse brine
- Savings
 - 213,400 lbs. salt
 - 214,500 gal. water



Current



Reuse



Fermentation Tank Farm: Reduce

- Opportunity
 - Stored at a 12% salt level
- Solution
 - Modify tanking procedures so product can be stored at a 7% salt level
- Savings
 - 364,500 lbs. salt
 - 537,000 gal. water



Recommended Changes

Recommendations	Annual energy saved	Lbs. of salt reduced	Water savings (gpy)	Annual Savings
B-line past. overflow to A-line	22,000 therms	N/A	3,085,000	\$10,600
Reuse brine	N/A	213,400	214,500	\$21,340
Reduce final salt in brine	N/A	364,000	383,000	\$36,400
Total	22,000 therms	460,500	543,200	\$56,650

Additional savings

- Water leaks
 - 2,220,000 gallons/year
- Water conservation culture
 - Sections in “The Crunch”
 - Communication

Personal Benefits

- Free pickles on Thursdays
- Real-world engineering experience
- Wastewater tests in lab
- Environmental regulation
- Data analysis
- Cost/benefit analysis
- Communication with staff

Questions?

