LAND O’ FROST FORMULATION IMPROVEMENT
Outline

- Background
- Problems
- Solutions
BACKGROUND
Land O’ Frost

- Family owned
- 50 years
- Manufacturing Deli Meat
- Based in Lansing, IL
- Customer satisfaction
Team Organization

- Individuals’ Expertise
- Minimal Subdivision
- Small Group Size
  - Equal task distribution

<table>
<thead>
<tr>
<th>Name</th>
<th>Major</th>
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<tbody>
<tr>
<td>Alemayehu, Matti</td>
<td>Chemistry</td>
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<td>Amegasse, Pierre-Paul</td>
<td>Chemical Engineering</td>
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<td>Hogan, Michael</td>
<td>Computer Science</td>
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<td>Isoda, Mitchell</td>
<td>Applied Mathematics</td>
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<td>Mick, Emily</td>
<td>Chemistry</td>
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<td>Torres, Edgar</td>
<td>Computer Science</td>
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Formulation Process

- Corporate
- Scheduler
- Receiving
- Grinder
- Mixer
- Curing
- Stuffing
- Oven
PROBLEMS
Problems

- Corporate
  - Lack of surveys

- Scheduler
  - Extensive Manual Data Entry
Problems

- **Receiving**
  - USDA regulations

- **Grinder**
  - Different types of tools for similar processes
  - Tools breakage
Problems

- **Mixer**
  - Plant layout arranged by process

- **Curing**
  - Keeping track of materials
Problems

- **Stuffing**
  - Outdated Equipment

- **Oven**
  - Inefficient rack use
Solutions

- **Corporate**
  - Create a quiz to ensure workers understand the information presented to them in training.

- **Scheduler:**
  - Create a new system for scheduling, such as a computer program
Solutions

- **Receiving:**
  - Install an electric eye device, like in garage doors, to respond when materials are placed too close to the wall

- **Mixer:**
  - Revise the plant layout by organizing according to product or line rather than process
Solutions

- **Grinder:**
  - Use fewer tools.
  - Every tool should be welded.
  - Policies concerning tools should be implemented requiring tools be examined before they are used.
  - Tool breakages should be tracked, and tools should be discarded preventatively according to these records.
Solutions

- **Curing**
  - Use a computerized tracking system when arranging the curing rooms

- **Stuffing:**
  - Replace outdated equipment. This includes purchasing new machines on the market that are faster, as well as searching for automated alternatives.
Solutions

- **Oven**
  - Use flexible rack system to accommodate more shelves when smaller log sizes are used
Challenges

- Industry Inexperienced
- Non-Disclosure Agreement
- Unable to implement suggestions
Looking ahead...

• Continue work on formulation

• Progress work to packaging

• Maintain communication with sponsor
Acknowledgments

- Land O’ Frost
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- Dr. Sheldon Mostovoy
- IPRO office
Questions