

Wegmans Batch Prep Project

P10713

Project Summary

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R·I·T

Wegmans

Agenda

- Review Project Goals
- Discuss actual results compared to planned results
- Discuss why some results did not meet plan and/or spec
- Questions and Discussion

Project Goals

- Analyze and make necessary improvements to ergonomic issues to meet OSHA recommended levels
- Develop Rate of Expectancy (ROE) in lbs/hour for each product to assist in scheduling needs
- Develop standard work procedures
- Develop a layout to facilitate standard work procedures

Proposal Topics

- Ergonomics and Safety
- New Equipment
- Layout
- Rate of Expectancy
- Standard Operating Procedures
- Future Design Ideas for Wegmans to Implement

ERGONOMICS AND SAFETY

ACTUAL VS. PLAN

Ergonomics and Safety Actual vs. Plan

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value
S 1	Improve Ergonomics & Safety	9	NIOSH and Wegmans Ranking system	Reduce Recorded injuries 50%	Reduce recorded injuries to 0

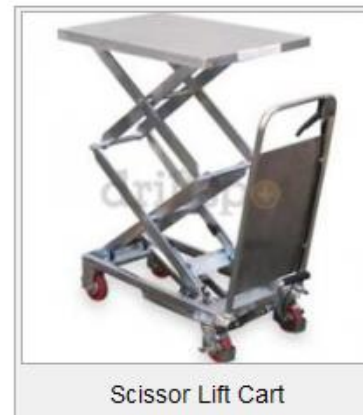
Meet Metric	Explanation
Unknown	Improvements have been made and suggested. Will take time to see if they reduce the recorded injuries to 0

Electric Lift Cart

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 4	Solutions Meet Wegmans Safety Standards	9	Y/N	Y	Y	Y	
S 5	Improvements meet payback period	9	Years	2	1	Y	
S 6	New devices meet FDA/USDA approval	9	Y/N	Y	Y	Y	
S 11	Min Ride height	9	Inches	12	8	N	Designed cart would be 15" min ride height

Status

- Aloï designed a cart. Design and costs were passed off to Chris, who is trying to get a demo unit in for testing.



Ergonomics and Safety Actual VS. Plan

Cut Proof Gloves

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 12	Gloves maintain cleanliness and Dexterity	9	Y/N	Y	Y	Y	

Status

- Cut proof gloves were recommended, Wegmans intention glove use is unclear



NEW EQUIPMENT

R·I·T

Wegmans

Pump

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 5	Improvements meet payback period	9	Years	2	1	Y	Assumptions: 100 gal. pumped a day, a cost for labor hours and back injuries. The adjusted payback is 1.21 years
S 6	New devices meet FDA/USDA approval	9	Y/N	Y	Y	Y	
S 4	Solutions Meet Wegmans Safety Standards	9	Y/N	Y	Y	Y	

Status

- Pump and totalizer testing has been completed. For full implantation few parts are needed



Flow Sensor and Totalizer

Pourer

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 5	Improvements meet payback period	9	Years	2	1	U	The team was unable to finish the prototype on time to get a detail quote, thus payback could not be calculate at this time.
S 6	New devices meet FDA/USDA approval	9	Y/N	Y	Y	Y	
S 4	Solutions Meet Wegmans Safety Standards	9	Y/N	Y	Y	Y	

Status:

- Prototype has been completed and will be handed over to Wegmans.



Prototype of Pourer

LAYOUT ACTUAL VS. PLAN

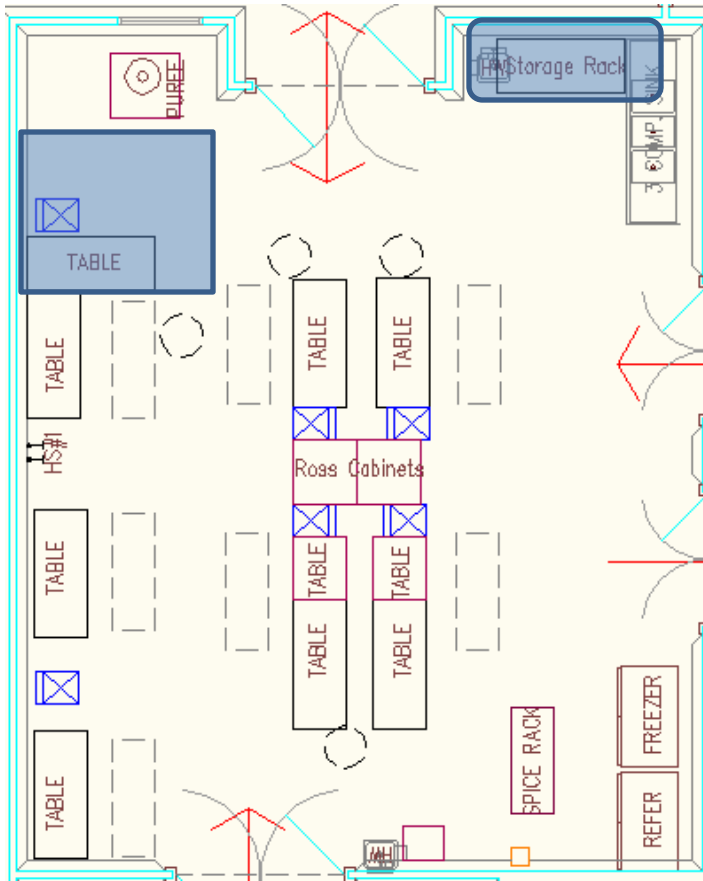
Layout

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 2	Cleaning Time	3	Minutes	<15 min Increase	0 min increase	Y	Only one storage rack was added to the room but a work station was removed so the cleaning time remained the same
S 7	Employee Satisfaction	9	Y/N	Y	Y	Y	Employees are very satisfied with the storage rack and have given positive feedback on other changes
S 8	Work Space in front of Puree Machine	9	Feet	6ft	8ft	Y	By setting up an L-shape work station next to the puree machine an aisle was created (approximately 7' wide but moves from day to day)
S 9	Aisle space congestion	9	Width of Aisle	3.5 - 4 foot wide aisle	4 foot wide aisle	N	The new layout was not able to provide adequate aisle space due to the need of WIP space. Work standardization should improve the congestion

Status

- Final layout has been implemented

New Layout



Storage Rack

Rate of Expectancy

Specs #	Metric Description	Importance	Measurable Unit	Marginal Value	Target Value	Meet Metric?	Explanation
S 5	Improvements meet payback period	9	Years	2	1	Y	
S 6	New devices meet FDA/USDA approval	9	Y/N	Y	Y	Y	Did not require new devices.
S 4	Solutions Meet Wegmans Safety Standards	9	Y/N	Y	Y	Y	ROE equation is a estimation tool

Status:

- While the equation met the specs, the equation itself is not the most accurate due to the limited data set.

$$\text{Labor Hours} = 61.4 + 0.106 \# \text{ Batches} + 0.00147 \text{ projected yield} + 0.135 \text{ Ingredient \#}$$

STANDARD OPERATING PROCEDURES

Standard Operating Procedures

- 1) White board
- 2) Gloves
- 3) Team push-pull of loaded carts
- 4) Limitation of racks in room
- 5) Ross cabinets used for storage

Future Work

- 1) Room Capacity Analysis
- 2) Electronic Batch Card
- 3) Scheduling
- 4) ROE Data Collection
- 5) Kaizen to create a inventory tracking system
- 6) Ingredient Lifting Guide

What could we have done better/ Lessons Learned

- Contacted the next people in line earlier in project
 - i.e.: Cindi, Maintenance,
- Team should have been more persistent in drawing ideas out of the employees throughout the project.
- Contact vendors earlier in project
- Team should have been more involved in the procurement process

Special Thanks

- The team would like to thank
 - Chris, Jerry, Cindi, Stephanie
 - All Batch Prep employees
 - Wegmans Maintenance Employees
 - Aloï & MKE
 - John Kaemmerlen

Questions?