

Optimized Manufacturing with Microorganisms

BACKGROUND:

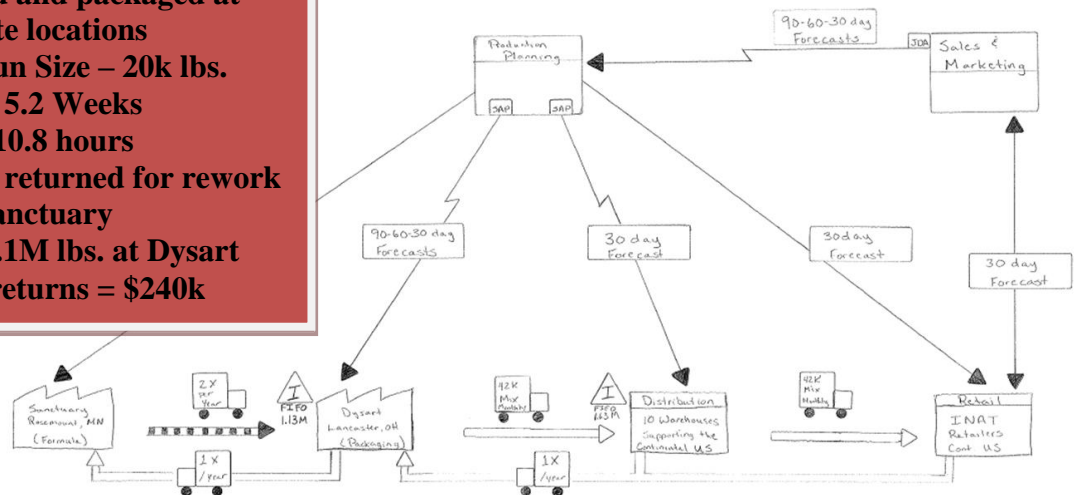
Company Confidential

Launched 2010:
9 Formulas
18 skus
2 Year Shelf Life
Seasonal Business –
March to September
FY11 Rework ~ \$300k

Company Confidential

CURRENT CONDITION:

Manufactured and packaged at separate locations
Minimum Run Size – 20k lbs.
PLT = 5.2 Weeks
PT = 10.8 hours
Expired product returned for rework at Sanctuary
Inventory ~ 1.1M lbs. at Dysart
Est. FY12 returns = \$240k



Problem Statement:

Currently carrying large quantity of inventory that has a two year shelf-life. Estimated cost for expired product next year \$240k. Alternate options for manufacturing will need to be developed or the trend will continue in FY13 that will jeopardize the viability of the product line.

GOALS:

	<i>Process Lead-time</i>	<i>Inventory</i>	<i>Run Size</i>	<i>Expired Product</i>	<i>Reduced Part #'s</i>	<i>Product Cost</i>
2012	5.2 weeks	1,100,000 lbs.	20,000 lbs.	\$300,000	9 formulas	Variable
2013	2.5 weeks	100,000 lbs.	10,000 lbs.	\$50,000	6 formulas	-\$50 / Ton

By: Rob Radabaugh

Coach: Gary Butler

Date: 11/30/12 Rev. 3

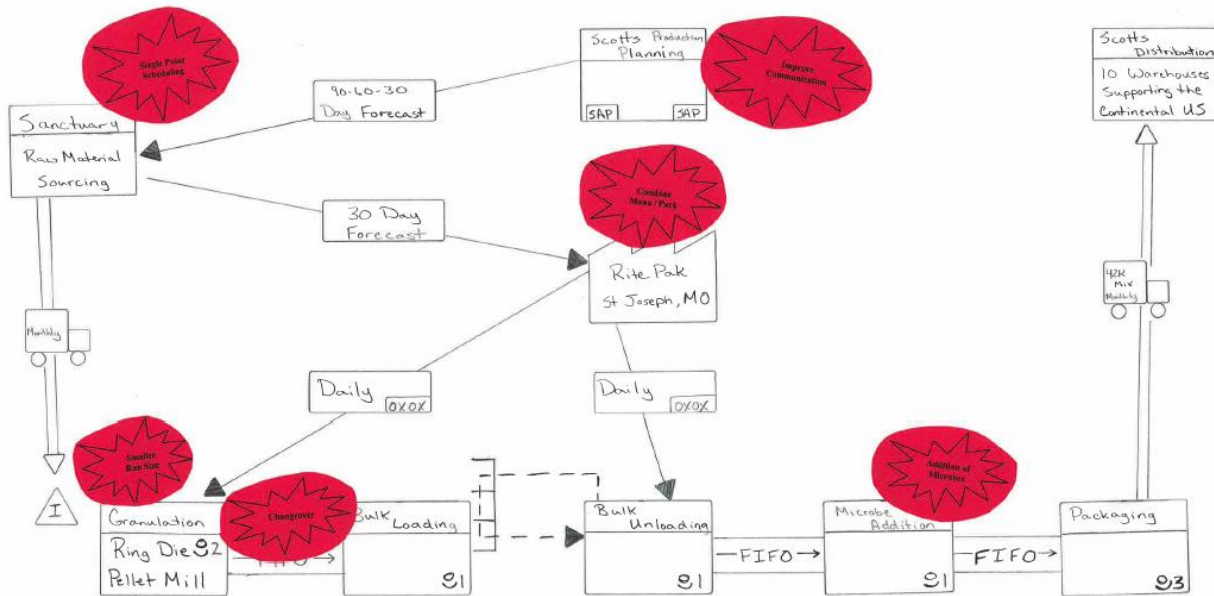
Team: J. Iovino, L. Conley, S. P. Norby, Steed, C. Wills, F. Addy

COUNTERMEASURES:

Scale: 0=poor 4= excellent

Countermeasure	Effect.	Cost	Feas.	Impact	Risk	Total
1. Implement Just-In-Time Manufacturing	4	2	1	2	4	13
2. Add microbes during packaging	4	3	3	4	4	18
3. Combine man. and packaging	4	3	4	4	4	19
4. Reduce run size or raw material	3	2	2	3	4	14
5. Reduce formulation complexity	3	2	4	2	4	15
6. Remove microbes from formula.	4	4	4	0	0	12

FUTURE STATE MAP:



COUNTERMEASURE EVALUATION:

✓	Evaluate Options with Sanctuary	4 mons	L. Conley	Thu 1/26/12	Wed 5/16/12	
✓	Develop Std Work for Forecasting	3 wks	R. Radabaugh, Team	Thu 5/17/12	Wed 6/6/12	
✓	Evaluate Options with Dysart	4 mons	C. Wills	Thu 6/7/12	Wed 9/26/12	
✓	Implement Formula Grouping Strategy	4 mons	R. Radabaugh	Thu 6/7/12	Wed 9/26/12	
✓	Evaluate options with Rite Pak	3 mons	L. Conley	Mon 7/2/12	Fri 9/21/12	
☐	Evaluate Stability of Microbes	24 mons	R. Radabaugh	Mon 12/5/11	Fri 10/4/13	
✓	Temperature monitoring in facilities	6 mons	P. Norby	Mon 2/20/12	Fri 8/3/12	
✓	Evaluate perfect storage conditions: Time/Temp/Moisture	3 mons	R. Radabaugh	Thu 3/1/12	Wed 5/23/12	
✓	Evaluate Testing Options - ATL	4 mons	S. Lorke	Mon 2/6/12	Fri 5/25/12	
✓	Evaluate Re-Labeling Options	2 mons	C. Wills	Mon 5/28/12	Fri 7/20/12	
	Conduct Cost Analysis for Rite Pak Option	1 mon	C. Wills	Mon 9/24/12	Fri 10/19/12	