

Implementing PLM in the Fast-Paced, Innovation Driven Prepared Foods Industry

Shawn Holguin – Research and
Culinary Innovation Manager



Who am I?

- Research and Culinary Innovation Manager
- Graduated UC Davis, BS in Food Science
- Manage new product development, new product launches, product improvements and customer samples



Valley Fine Foods

Valley Fine Foods is a family-owned company dedicated to creating chef-inspired foods to bring delight to every meal. We began in 1984 by creating one of the first lines of fresh pasta and sauces. Since then, we have continued the tradition of delivering the best-tasting, restaurant-quality products with a light environmental footprint.



Agenda

- Why spend the time and money to implement ARAS?
- Discuss some struggles with the process
- How we made the system work for us
- What are some tangible benefits now?
- What are our plans for ARAS in the future?



Why would we do this?

- Huge investment of time and money
- Most data could not be connected
- Many places where information could be and many places where our information should be in our old system.
 - Genesis
 - Filemaker
 - Excel Documents
 - SharePoint
 - List goes on...



Why would we do this?

Recipe: Filling, 4 Color Tortellini 04.14.09

Name: Filling, 4 Color Tortellini 04.14.09
 Number of Servings: 1.00 (51930.75 g per serving)
 Weight: 51930.75 g

Add Item:

Item Name	Quantity	Measure	ESHA Code
Cheese, Ricotta, Whole Milk, Sorento DO NOT USE	30	Pound	
Oil, Canola, The Olive Oil Factory	3	Pound	
Water	4	Pound	
Salt	0.13	Pound	
Spice, Cream Powder	135	Ounce	
Spice, White Pepper, Ground #0	75	Ounce	
Spice, Garlic Granulated	180	Ounce	
Cheese, Fontina Grated, Wisconsin	37.5	Pound	
Cheese, Parmesan Grated, Wisconsin	15	Pound	
Cheese, Asiago, Grated	15	Pound	
Cheese, Fontina Shredded(Caputo)	8	Pound	
Panko, Newly Webs #9 Natural 06.18.10	3	Pound	

Notes:

Item Master

Item #	Item Name	Formula Code	Class	Category	Customer	Brand	Country	Description	UPC	Net Wt (lb)	Substitutes	Ingredient Substitutes	Formula Code	Food	Status
18 100-022815	Five Cheese Tortellini	1071-11-0-0-1	00	00	00	00	US	Five Cheese Tortellini	0-42713-24023-7	1.00	10	Five Cheese Tortellini	Five Cheese Tortellini	Five Cheese Tortellini	Active
19 010-022834	Sprink and Cheese Tortellini	1071-11-0-1-1	00	00	00	00	US	Sprink and Cheese Tortellini	0-42713-30041-6	1.00	24	Sprink and Cheese Tortellini	Sprink and Cheese Tortellini	Sprink and Cheese Tortellini	Active
19 010-022835	Alfredo Sauce	1071-11-0-1-1	00	00	00	00	US	Alfredo Sauce	0-42713-34360-2	1.00	11	Alfredo Sauce	Alfredo Sauce	Alfredo Sauce	Active
19 010-022836	Angel Hair	1071-11-0-1-12	00	00	00	00	US	Angel Hair	0-42713-34411-0	1.00	6	Angel Hair	Angel Hair	Angel Hair	Active
19 047-00501	Roast Peas	1071-00-0-1-1	00	00	00	00	US	Roast Peas	0-46502-00020-6	1.00	7	Roast Peas	Roast Peas	Roast Peas	Active
19 047-01021	Butternut Squash Ravioli (Orange Stough)	1071-00-0-1-12	00	00	00	00	US	Butternut Squash Ravioli (Orange Stough)	0-42713-35073-1	1.00	12	Butternut Squash Ravioli (Orange Stough)	Butternut Squash Ravioli (Orange Stough)	Butternut Squash Ravioli (Orange Stough)	Active
19 047-01040	Butternut Squash Ravioli (Orange Stough)	1071-00-0-1-1	00	00	00	00	US	Butternut Squash Ravioli (Orange Stough)	0-46502-00033-7	1.00	6	Butternut Squash Ravioli (Orange Stough)	Butternut Squash Ravioli (Orange Stough)	Butternut Squash Ravioli (Orange Stough)	Active
19 047-04003	Italian Sausage Ravioli	1071-00-0-1-4	00	00	00	00	US	Italian Sausage Ravioli	0-42713-34400-9	1.00	9	Italian Sausage Ravioli	Italian Sausage Ravioli	Italian Sausage Ravioli	Active
19 047-02023	Organic Mushroom Ravioli	1071-00-0-1-1	00	00	00	00	US	Organic Mushroom Ravioli	0-42713-35033-3	1.00	10	Organic Mushroom Ravioli	Organic Mushroom Ravioli	Organic Mushroom Ravioli	Active
19 047-02030	Spiced Beef Peas	1071-00-0-1-0	00	00	00	00	US	Spiced Beef Peas	0-42713-33000-1	1.00	22	Spiced Beef Peas	Spiced Beef Peas	Spiced Beef Peas	Active
19 047-00121	Sprink & Cheese Tortellini	1071-11-0-1-1	00	00	00	00	US	Sprink & Cheese Tortellini	0-42713-31130-0	1.00	11	Sprink & Cheese Tortellini	Sprink & Cheese Tortellini	Sprink & Cheese Tortellini	Active



Why would we do this?

RAVIOLI (AGNELLI) PRODUCTION TEST FORM						
PRODUCT:					Production Date: 10.01.12	
OBJECTIVE:					Project Team:	
					Current Code #	
Dough 45%		#N/A	FILLING COST/LBS	DOUGH COST/LBS	MAIN INGREDIENT %	
Filling 55%		#N/A				
Total Ravioli Cost/Lbs		#N/A	#N/A	#N/A		
CONCLUSION:						
[REF/PROQ] DOUGH						
ITEM DESCRIPTION	VENDOR	LBS	%	S/LBS	Total Cost [lbs]	ITEM CODE
	#N/A	50.00	35.43%	#N/A	#N/A	#N/A
	#N/A	50.00	35.41%	#N/A	#N/A	#N/A
	#N/A	21.00	14.87%	#N/A	#N/A	#N/A
	#N/A	1.20	0.85%	#N/A	#N/A	#N/A
	#N/A	19.00	13.66%	#N/A	#N/A	#N/A
TOTAL DOUGH WEIGHT		141.20	100.00%		#N/A	
DOUGH MIXING PROCEDURE:						
Mix Dough in the Horizontal Dough Mixer for 18 Minutes						
You Must RELAX THE DOUGH for a MINIMUM of 30 Minutes BUT not more than 2 Hours!						
[RAVIOLI NAME] FILLING						
STEP 2:						
ITEM DESCRIPTION	VENDOR	LBS	%	S/LBS	Total Cost [lbs]	ITEM CODE
	#N/A	60.00	33.42%	#N/A	#N/A	#N/A
	#N/A	5.00	1.67%	#N/A	#N/A	#N/A
	#N/A	10.00	5.57%	#N/A	#N/A	#N/A
Mix on mixer speed dial 2 (med speed) for 3 minutes.						
STEP 2:						
[RAVIOLI NAME] SPICES						
ITEM DESCRIPTION	VENDOR	GRAMS	%	S/LBS	Total Cost [lbs]	ITEM CODE
	#N/A	380	0.82%	#N/A	#N/A	#N/A
	#N/A	370	0.82%	#N/A	#N/A	#N/A

PRODUCT NAME:	
PRODUCT CODE:	
UNIT WEIGHT:	
INGREDIENTS:	
Contains:	
Manufacturer: Valley Fine Foods Company, Inc. 3909 Park Road CA 94516	
Nutritional Facts Panel Sales Run Sheet	



Struggles - System Development

- When problem solving needed to think and speak in the language of “ARAS”
- Do not try and make ARAS conform to what you were doing previously.
- End goal is practicality
- Think of all the data points you are taking and isolate each one
 - Question every variable!



Struggles - System Implementation

- Biggest problem: IT'S JUST DIFFERENT!
- Excel spreadsheets are intuitive to most people
- New sets of processes and procedures
- Benefits of ARAS are not instant
- How and where do we input data?
- All key players needed to be involved



Gamechanger #1: Nutritionals

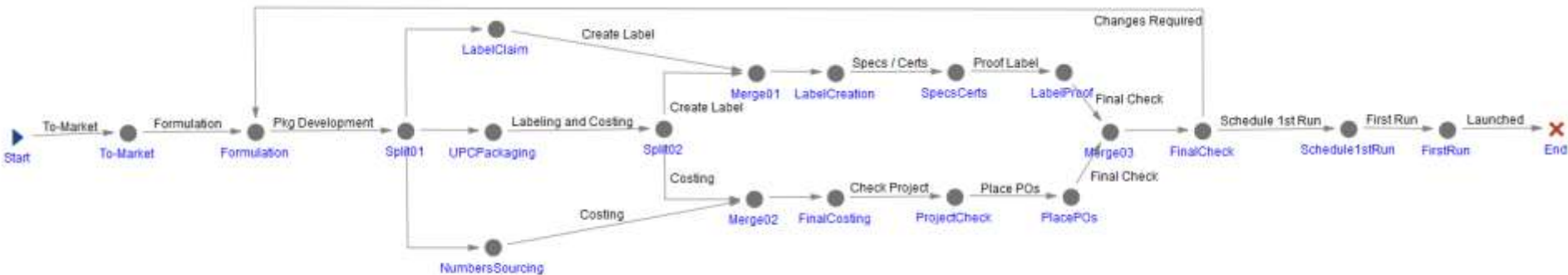
VALLEY Fine Foods		Formula Nutrition Report CHMZ-29 Grilled Chicken and Mozzarella Ravioli	
Formula Name		Formula Number	Rev
Grilled Chicken and Mozzarella Ravioli		CHMZ-29	1
Unit Weight (oz)	Number of Servings	Serving Size (vol)	Serving Size (g)
36.00	about 10	1 cup	100.0
Nutritional Values			
Description	Serving Value	Unit of Measure	%DV
Calories	220		
Calories from Fat	70		
Total Fat	8.0	g	12.0
Saturated Fat	3.5	g	18.0
Trans Fat	0.0	g	
Cholesterol	45	mg	15.0
Sodium	340	mg	14.0
Total Carbohydrate	23	g	8.0
Dietary Fiber	1	g	5.0
Sugars	0	g	
Protein	14	g	28.0
Vitamin A	175	IU	4.0
Vitamin C	0	mg	0.0
Calcium	151	mg	15.0
Iron	1	mg	4.0
Ingredients			
FILLING INGREDIENTS: Grilled Seasoned Chicken Breast with Rib Meat (Chicken Breast with Rib Meat, Water, Less Than 2% Rice Starch, Lemon Juice Concentrate, Vinegar, Salt, Seasoning [Tapioca Dextrin, Salt, Grill Flavor (from Sunflower Oil), Natural Smoke Flavoring], Spice), Mozzarella Cheese (Pasteurized Part Skim Milk, Cheese Cultures, Salt, Enzymes), Water, Ricotta Cheese (Pasteurized Milk, Pasteurized Whey, Pasteurized Cream, Vinegar, Salt, Stabilizers [Xanthan Gum, Locust Bean Gum, Guar Gum]), Canola Oil, Romano Cheese (Pasteurized Cow's Milk, Cheese Cultures, Salt, Enzymes, Powdered Cellulose [To Prevent Caking]), Parmesan Cheese (Pasteurized Part Skim Milk, Cheese Cultures, Salt, Enzymes, Cellulose [To Prevent Caking]), Egg White, Spices, Granulated Garlic, Dehydrated Onion, Salt.			
DOUGH INGREDIENTS: Extra Fancy Durum Flour, Semolina Flour, Egg, Water.			
COOKING INSTRUCTIONS: 3-4 MINUTES.			
Allergens			
Egg, Milk, Wheat			

- Problems with our current process
 - Time intensive
 - A lot of room for human error
 - Copying the same data to different places
- Eliminate Genesis
- Same formula used in R&D was now being used for nutritionals, limits human error
- Same with ingredients, all the information was there.



Gamechanger #2: New Product Launch Process

- All the information was in one place
- We were able to create a workflow that works for us as a company
- Everything is linked from R&D to Operations



Fruits of our Labor

- Raw Material Costs are continuously updated.
- Single point of truth for everything
- The amount of “double-checking” emails reduced significantly
- A year and a half later and the habits are now built
- Systems in place to make sure things are functioning efficiently and accurately
- “It’s like we’re working for a real company now!”



Looking Ahead

- Now that we know what we're doing, we have more ideas.
- Ideas that came not from the old way of doing things, but ideas that are coming out of the language of ARAS.
- Seeing that some things aren't as important as we thought, and others are more important than we previously thought
- Gives us a good base to work off of in the future



Quality and Operations Modules

- Need to get quality data into ARAS
- How do we make ARAS user friendly with the work force that we have
- Leaders throughout the company will take ownership for other portions



Key Takeaways

- Needed a solution to manage products in our growing business
- There were many issues with initial implementation
- Customized the system for us
- Most of RCI, Sourcing, Purchasing, Costing and Project Management is now in ARAS
- Look forward to implementing in production and Quality Assurance



Thanks!
Questions?

