

# RECIPE MAPPING™

## HOW TO TURN GOOD RECIPES INTO GREAT MENU ITEMS

**A** good recipe for home cooking doesn't always work out when you attempt to replicate it in the restaurant. Startup restaurateurs find out quickly that a recipe intended to yield four, six or even 10 servings might not be practical when feeding dozens or even hundreds of guests — every day.

Success in the restaurant business is often measured in pennies. Inaccurate purchase orders, wasted product and inefficient labor use are ingredients for losing money. And while your friends and family never minded waiting an extra half-hour or so for your home recipes or varia-

tions in presentation, your restaurant guests will not forgive slow service and inconsistency.

For good recipes to become great menu items, you must learn to make them pleasing to both your guests and your accountant. You must break them down into stages that assist purchasing and inventory control, organize prepping, reduce production time, and maximize yield. Then you must build them up to serve dozens of covers.

Our proprietary name for this process is RecipeMapping, and it is designed to help you add new items to your menu consistently, methodically and profitably.

### Step 1 – Add Ingredients to the Master Inventory

**List.** Every restaurant should maintain a Master Inventory List that includes all of the ingredients that a restaurant must use in the preparation of their menu items. This list can be maintained using a spreadsheet format that includes purchasing information, such as the pack, size, and price of the ingredients — information that is useful when creating other management forms, such as inventory and order forms. But to accurately calculate the real cost to produce a menu item, the Master Inventory list should not only reflect the purchasing cost and unit of measure, but also the corresponding recipe cost and unit of measure. Any ingredient used in cooking can be expressed in one of three units of measure when using it in a recipe — weight measure (typically ounces or lbs.), volume measure (such as tsp., tbsp., cups, qts. or gal.), or by piece. Many products are purchased by weight units of measure but are measured for recipes in terms of volume (fluid) measure. To determine a true recipe unit cost, it can require measuring a pound of product to determine its recipe yield. We provide Recipe Conversion Notes to assist in this process.

### Step 2 – Create the Prep Stages.

Here we identify parts of the menu item that can be prepared prior to final cooking and presentation, to reduce the time from order to service. Even a simple, single menu item often requires several subrecipes that are produced in batch and become part of the routine preparation tasks. Each subrecipe is then added to the Recipe Manual for reference by the kitchen staff. The cost of each subrecipe ingredient is calculated by multiplying the number of recipe units used by the recipe unit cost listed in the Master Inventory. The subrecipe batch is then assigned its own recipe unit and cost based on total cost to produce the batch and how much it yields.

### Step 3 – Calculate Menu Item Cost.

Finally, the cost of the menu item is determined by calculating the cost of each recipe or ingredient needed to produce the menu item, then affixing a selling price that produces the desired profit. Restaurants should review their menu item cost every three to six months to ensure that cost expectations are accurate.

## THIS MONTH'S FEATURES:

### White Bean Ragu with Smoked Pork Shank and Grilled Andouille Sausage Sandwich

This month's article features a white bean dish we're developing for a client, and an andouille sausage sandwich submitted by the National Onion Association. Author Chef Tom Bruce of Central Coast Food & Beverage created the recipe mapping for these dishes.



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# MENU ITEMS

Menu items featured in our RecipeMapping department are available online at [www.RestaurantOwner.com/recipe.htm](http://www.RestaurantOwner.com/recipe.htm).

## WHITE BEAN RAGU WITH SMOKED PORK SHANK

- 1 ea. White Bean Ragu
- 1 ea. Smoked Pork Shank Prep
- 0.5 oz. Roma Tomato, fresh
- 1 oz. Crostini Prep
- 1 oz. Romaine Lettuce
- 0.75 oz. Roma Tomato, fresh
- 1 ea. Roasted Asparagus
- 1 ea. Vinaigrette Dressing for Tomato Salad



### LINE COOK INSTRUCTIONS:

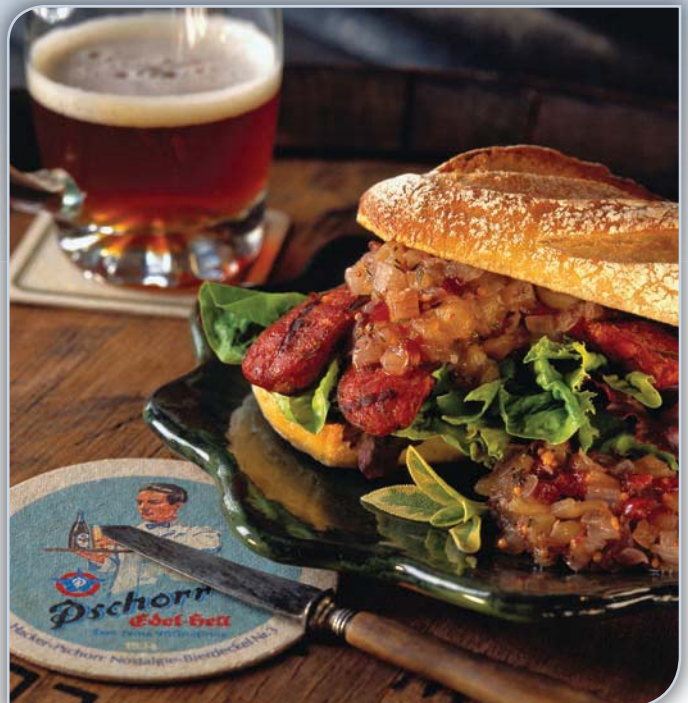
1. Place one portion of beans and one portion of chopped shank meat in a sauté pan.
2. Bring to a simmer, add the chopped tomatoes, toss to blend.
3. While the beans are heating, place the crostini under the salamander for the final cooking step.
4. Place the beans in a soup bowl, plate.
5. Add the cut romaine, tomato quarters, and roasted asparagus. Drizzle with vinaigrette for service.
6. Garnish with warm crostini.

## GRILLED ANDOUILLE SAUSAGE SANDWICH

- 2 ea. Olive Oil, extra-virgin
- 1 oz. Andouille, fresh 4 oz. each
- 1 ea. Baguette bread
- 1 ea. Mayonnaise
- 1 oz. Spring Mix Lettuce
- 1 ea. Onion Apple Relish

### LINE COOK INSTRUCTIONS:

1. Split the sausage and place the cut side down on a medium-hot, lightly oiled area of the grill to heat.
2. Crossmark and turn the sausage.
3. While the sausage is heating, place the split baguette on a cooler portion of the grill to heat.
4. When heated, spread the mayonnaise on the bottom piece of bread, add the sausage.
5. Garnish with the spring mix and onion apple relish.
6. Place the top of the roll offset to highlight the ingredients and serve.



# STEP ONE: INVENTORY MASTER

Item Description	Case Pack/Size	Purchase Unit (PU)		Recipe Cost Unit (RU)			
		U/M	Current Price	U/M	# RU per PU	Yield %	Cost
* Allspice, ground	1/16 oz.	Each	25.60	OZ-fl	39	100%	0.650
* Andouille, fresh 4 oz ea	1/10 lb.	Box	68.50	EA	40	100%	1.713
* Apple, Granny Smith	1/88 ct.	Case	41.04	OZ-wt	440	74%	0.126
* Asparagus, medium	1/28 lb.	Case	64.40	OZ-wt	288	70%	0.319
* Bay leaves, whole	8.5 oz.	Case	8.10	EA	1105	100%	0.007
* Beans, white small dried	1/20 lb.	Case	25.98	OZ-wt	320	100%	0.081
* Bread, baguette	24/12 oz.	Case	45.83	EA	24	100%	1.910
* Broth, chicken	12/49 oz.	Case	40.41	OZ-fl	588	100%	0.069
* Cheese, parmesan shredded	2/5 lb.	Case	41.96	OZ-wt	160	100%	0.262
* Cranberry, dried sweetened	1/5 lb.	Each	16.30	OZ-wt	80	100%	0.204
* Garlic, granulated	6/26 oz.	Case	87.10	OZ-wt	156	100%	0.558
* Garlic, whole peeled	1/5 lb.	Each	19.70	OZ-wt	80	100%	0.246
* Lettuce, romaine	1/24 ct.	Case	20.61	OZ-wt	576	75%	0.048
* Lettuce, spring mix	1/3 lb.	Case	8.21	OZ-wt	48	100%	0.171
* Mayonnaise, heavy duty	4/1 gal.	Case	59.80	OZ-fl	512	100%	0.117
* Mustard seed, yellow	6/24 oz.	Case	56.15	OZ-wt	144	100%	0.390
* Oil, olive extra-virgin	3/1 gal.	Case	68.37	OZ-fl	384	100%	0.178
* Onion, yellow jumbo	1/50 lb.	Box	25.94	OZ-wt	800	91%	0.036
* Oranges, fresh	1/88 ct.	Box	22.64	EA	88	100%	0.257
* Pepper, black	6/18 oz.	Case	88.15	OZ-fl	227	100%	0.389
* Pepper, red crushed	6/13 oz.	Case	51.23	OZ-fl	231	100%	0.222
* Pork, leg shank 14 oz avg	1/10 lb.	Lb	1.89	OZ-wt	16	100%	0.118
* Salt, sea	12/26 oz.	Case	36.96	OZ-fl	293	100%	0.126
* Sauce, Worcestershire	4/1 gal.	Case	28.31	OZ-fl	512	100%	0.055
* Shallot, peeled fresh	4/4 lb.	Box	46.57	OZ-wt	256	100%	0.182
* Sugar, granulated	1/50 lb.	Bag	31.45	OZ-wt	800	100%	0.039
* Thyme leaves, whole	3/27.5 oz.	Case	89.44	OZ-fl	412.5	100%	0.217
* Tomato, Roma fresh	1/25 lb.	Box	21.02	OZ-wt	400	96%	0.055
* Vinegar, apple cider	4/1 gal.	Case	26.86	OZ-fl	512	100%	0.052
* Water	gallon	Bottle	0.00	OZ-fl	128	100%	0.000

\*white bean ragu with smoked pork shank \*\*grilled andouille sausage sandwich \*\*\* Both

The first step is to identify each ingredient for all the subrecipes and then to get the purchasing unit pack, size, and cost information from your foodservice distributor. Raw ingredients for these menu items were chosen based on availability from local distributors. Once you have the purchasing information, you're ready to calculate the number of recipe units in each purchase unit.

## RECIPE CONVERSION NOTES:

Many products are purchased by the weight unit of measure but are measured for recipes in fluid measures, such as teaspoons, tablespoons or cups. Precise conversion formulas are necessary to attain accurate costs. Here are some facts we noted when calculating the number of recipe units:

- Allspice, ground weighs 0.203 oz. per Tbsp.
- Apples, Granny Smith average about 5 ozs. each.
- Bay leaves are 130 each per wt. oz.
- Mustard seed, whole weighs 0.4 oz. per Tbsp.
- Pepper, black ground weighs 0.238 oz. per Tbsp.
- Pepper, red crushed/flakes weighs 0.169 oz. per Tbsp.
- Romaine lettuce weighs arounds 24 ozs. per head and yields 75% after cleaning.
- Salt, sea weighs 0.534 oz. per Tbsp.
- Shallots fresh cleaned weighs 4.9 oz. per cup.
- Thyme leaves whole weighs 0.1 oz. per Tbsp.

# STEP TWO: PREP STAGES

Subrecipes are usually prepared ahead of time and can be components for one or several menu items.

## WHITE BEAN RAGU WITH SMOKED PORK SHANK

National Onion Association			Recipe Cost			
White Bean Ragu			RU	# of RU	RU Cost	Cost
<b>INGREDIENTS</b>	<b>MEASURE</b>	<b>PROCEDURE</b>				
Beans, white small dried	2 lbs.	1. Place beans in a food-grade container, cover with water and soak overnight. 2. Using a colander, drain the beans before cooking. 3. Heat the olive oil in a medium weight stockpot. Add the onions and garlic, "sweat" over low heat until transparent. Add the thyme and stir well. 4. Add the pork stock, chicken broth and then the drained beans. 5. The Worcestershire is optional, add at this point if desired. 6. Bring to a simmer, cover and continue to cook for 1 to 1½ hours until firm, but cooked. 7. Adjust the seasoning by adding salt and pepper, if necessary. Don't pre-salt, as both stocks already contain salt. 8. Place the cooked beans in a shallow pan and allow to cool. Cover and refrigerate for service.	OZ-wt	32	0.081	\$ 2.60
Onion, yellow jumbo	12 ozs. fine dice		OZ-wt	12	0.036	\$ 0.43
Garlic, whole peeled	3 ozs. finely chopped		OZ-wt	3	0.246	\$ 0.74
Oil, olive extra-virgin	¼ cup		OZ-fl	2	0.178	\$ 0.36
Thyme leaves, whole	1 tsp.		OZ-fl	0.16	0.217	\$ 0.03
Sauce, Worcestershire	1 Tbsp.		OZ-fl	0.5	0.055	\$ 0.03
Broth, chicken	2 cups		OZ-fl	16	0.069	\$ 1.10
Pork Shank Stock	6 cups		OZ-wt	48	-	\$ -
					-	\$ -
					-	\$ -
<b>TOOLS/EQUIP.:</b> Ounce scale, measuring spoons, measuring cups, French knife, food-grade containers, colander, stainless steel service spoon, and medium weight stock pot with lid.			<b>Total</b>		\$	5.28
<b>STATION:</b> Prep cook			<b>RU</b>			EA
<b>YIELD:</b> About 62-5 oz. portions			<b># of RU</b>			62
<b>SHELF LIFE:</b> 4 days			<b>RU Cost</b>		\$	0.09

**CHEF'S NOTE:** There are different schools of thought regarding soaking beans. I prefer to soak them to reduce cooking times and feel it creates a better texture. Bean based dishes are great cold weather options, but consider using chilled beans in salads in warmer weather.

National Onion Association			Recipe Cost				
Onion Apple Relish			RU	# of RU	RU Cost	Cost	
<b>INGREDIENTS</b>	<b>MEASURE</b>	<b>PROCEDURE</b>					
Sugar, granulated	12 ozs.	1. Combine the sugar, vinegar, salt, allspice, bay leaves, thyme, orange zest, mustard seeds, red peppers, and garlic in a medium saucepot. 2. Bring to a boil and remove to indirect heat. Continue to lightly boil for 5-8 minutes until slightly reduced and thickened. 3. Fold in the onions and apples and return to a simmer. Continue to cook for 15 minutes or until the mixture has a syrup-like consistency. 4. Remove from the heat and remove the bay leaves, if possible. 5. Add the cranberries and let stand for 5-10 minutes. Adjust seasonings, if necessary. 6. Cool and hold refrigerated for service.	OZ-wt	12	0.039	\$ 0.47	
Vinegar, apple cider	1 cup		OZ-fl	8	0.052	\$ 0.42	
Salt, sea	2 Tbsp.		OZ-fl	1	0.126	\$ 0.13	
Allspice, ground	½ tsp.		OZ-fl	0.08	0.650	\$ 0.05	
Bay leaves, whole	2 each		EA	2	0.007	\$ 0.01	
Thyme leaves, whole	2 tsp.		OZ-fl	0.33	0.217	\$ 0.07	
Oranges, fresh	1 each, zested		EA	1	0.257	\$ 0.26	
Mustard seed, yellow	½ oz.		OZ-wt	0.5	0.390	\$ 0.19	
Pepper, red crushed	½ tsp.		OZ-fl	0.08	0.222	\$ 0.02	
Garlic, whole peeled	½ oz. minced		OZ-wt	0.5	0.246	\$ 0.12	
Onion, yellow jumbo	24 ozs. finely diced		OZ-wt	24	0.036	\$ 0.86	
Apple, Granny Smith	24 ozs. peeled and medium dice		OZ-wt	24	0.126	\$ 3.03	
Cranberry, dried sweetened	4 ozs. coarsley chopped		OZ-wt	3	0.204	\$ 0.61	
					-	\$ -	
<b>TOOLS/EQUIP.:</b> Ounce scale, measuring cups, measuring spoons, French knife, medium sauce pot and stainless steel service spoon.			<b>Total</b>		\$	6.24	
<b>STATION:</b> Line cook			<b>RU</b>			EA	
<b>YIELD:</b> About 24 portions			<b># of RU</b>			24	
<b>SHELF LIFE:</b> 4 days			<b>RU Cost</b>		\$	0.26	

**CHEF'S NOTE:** Our pork shanks yielded about 43% when cooked and pulled.

# STEP TWO: PREP STAGES

## WHITE BEAN RAGU WITH SMOKED PORK SHANK

National Onion Association			Recipe Cost			
Crostini Prep			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Bread, baguette	2 loaves	1. Using a serrated bread knife, cut the bread on the bias, slices should be ¾". 2. Lay the slices on 2 half sheet pans and very lightly toast them under the salamander, don't brown. 3. Using a spray bottle, lightly mist the toasted bread with extra-virgin olive oil. 4. Using a dredge can, dust the bread evenly with granulated garlic. 5. Place the bread under the salamander and lightly toast a second time. Hold at room temperature for service. 6. When ordered, place the cheese on the crostini and finish under the salamander.	EA	2	1.910	\$ 3.82
Oil, olive extra-virgin	½ cup		OZ-fl	4	0.178	\$ 0.71
Garlic, granulated	3 ozs.		OZ-wt	3	0.558	\$ 1.68
Cheese, parmesan shredded	20 ozs.		OZ-wt	20	0.262	\$ 5.25
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
<b>TOOLS/EQUIP.:</b> Cup measure, ounce scale, serrated bread knife, 2 half sheet pans, spray bottle and dredge can. <b>STATION:</b> Line cook <b>YIELD:</b> About 48 pieces. <b>SHELF LIFE:</b> 1 shift			<b>Total</b> \$ 11.45 <b>RU</b> EA <b># of RU</b> 48 <b>RU Cost</b> \$ 0.24			

**CHEF'S NOTE:** These are a nice touch with salads, soups and pastas, however, make them in small batches or to order to maintain quality.

National Onion Association			Recipe Cost			
Vinaigrette Dressing for Tomato Salad			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Oil, olive extra-virgin	3 cups	1. Combine the extra-virgin olive oil and vinegar in an industrial blender. 2. Add the garlic and shallots and mix thoroughly on medium speed. Let the dressing stand for 5 minutes to disperse the garlic and shallots. 3. Add the remaining ingredients in 2-3 batches to get the base flavor profile you're looking for. Blend on low between batches. 4. Refrigerate for service, shake well before each use.	OZ-fl	24	0.178	\$ 4.27
Vinegar, apple cider	2 cups		OZ-fl	16	0.052	\$ 0.84
Garlic, whole peeled	3 ozs. finely chopped		OZ-wt	3	0.246	\$ 0.74
Shallot, peeled fresh	2 ozs. finely chopped		OZ-wt	2	0.182	\$ 0.36
Sugar, granulated	1-½ ozs. (optional)		OZ-wt	1.5	0.039	\$ 0.06
Salt, sea	1 Tbsp.		OZ-fl	0.5	0.126	\$ 0.06
Pepper, black	1 Tbsp.		OZ-fl	0.5	0.389	\$ 0.19
					-	\$ -
					-	\$ -
					-	\$ -
<b>TOOLS/EQUIP.:</b> Measuring cups, measuring spoons, ounce scale, French knife and industrial blender. <b>STATION:</b> Pantry <b>YIELD:</b> About 42 each 1 fl. oz. portions <b>SHELF LIFE:</b> 4 days			<b>Total</b> \$ 6.53 <b>RU</b> EA <b># of RU</b> 42 <b>RU Cost</b> \$ 0.16			

**CHEF'S NOTE:** This is a very basic vinaigrette, so try adding fresh herbs, etc.

# STEP TWO: PREP STAGES CONTINUED

## GRILLED ANDOUILLE SAUSAGE SANDWICH

National Onion Association			Recipe Cost			
Onion Apple Relish			RU	# of RU	RU Cost	Cost
<b>INGREDIENTS</b>	<b>MEASURE</b>	<b>PROCEDURE</b>				
Sugar, granulated	12 ozs.	1. Combine the sugar, vinegar, salt, allspice, bay leaves, thyme, orange zest, mustard seeds, red peppers, and garlic in a medium saucepot. 2. Bring to a boil and remove to indirect heat. Continue to lightly boil for 5-8 minutes until slightly reduced and thickened. 3. Fold in the onions and apples and return to a simmer. Continue to cook for 15 minutes or until the mixture has a syrup-like consistency. 4. Remove from the heat and remove the bay leaves, if possible. 5. Add the cranberries and let stand for 5-10 minutes. Adjust seasonings, if necessary. 6. Cool and hold refrigerated for service.	OZ-wt	12	0.039	\$ 0.47
Vinegar, apple cider	1 cup		OZ-fl	8	0.052	\$ 0.42
Salt, sea	2 Tbsp.		OZ-fl	1	0.126	\$ 0.13
Allspice, ground	½ tsp.		OZ-fl	0.08	0.650	\$ 0.05
Bay leaves, whole	2 each		EA	2	0.007	\$ 0.01
Thyme leaves, whole	2 tsp.		OZ-fl	0.33	0.217	\$ 0.07
Oranges, fresh	1 each, zested		EA	1	0.257	\$ 0.26
Mustard seed, yellow	½ oz.		OZ-wt	0.5	0.390	\$ 0.19
Pepper, red crushed	½ tsp.		OZ-fl	0.08	0.222	\$ 0.02
Garlic, whole peeled	½ oz. minced		OZ-wt	0.5	0.246	\$ 0.12
Onion, yellow jumbo	24 ozs. finely diced		OZ-wt	24	0.036	\$ 0.86
Apple, Granny Smith	24 ozs. peeled and medium dice		OZ-wt	24	0.126	\$ 3.03
Cranberry, dried sweetened	4 ozs. coarsley chopped		OZ-wt	3	0.204	\$ 0.61
					-	\$ -
<b>TOOLS/EQUIP.:</b>	Ounce scale, measuring cups, measuring spoons, French knife, medium sauce pot and stainless steel service spoon.		<b>Total</b>		\$	6.24
<b>STATION:</b>	Line cook		<b>RU</b>	<b>EA</b>		
<b>YIELD:</b>	About 24 portions		<b># of RU</b>	<b>24</b>		
<b>SHELF LIFE:</b>	4 days		<b>RU Cost</b>	<b>\$</b>		0.26

**CHEF'S NOTE:** This makes a great winter relish for a number of different meats, especially pork and game.

# STEP THREE: CALCULATE COSTS

The final step for turning the recipe into a menu item is to add the cost of the ingredients needed to produce it. Calculating the cost of each recipe needed to produce the menu item makes it easy to cost out the finished menu item and affix a selling price that is profitable.

Menu Item: White Bean Ragu with Smoked Pork Shank				
Item Description: Slow cooked and served with a Roma tomato and roasted asparagus salad and warm parmesan crostini.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
EA	1	White Bean Ragu	0.09	0.09
EA	1	Smoked Pork Shank Prep	0.44	0.44
OZ-wt	0.5	Tomato, Roma fresh	0.05	0.03
EA	1	Crostini Prep	0.24	0.24
OZ-wt	1	Lettuce, romaine	0.05	0.05
OZ-wt	0.75	Tomato, Roma fresh	0.05	0.04
EA	1	Roasted Asparagus	0.34	0.34
EA	1	Vinaigrette Dressing for Tomato Salad	0.16	0.16
			0.00	0.00
			0.00	0.00
			0.00	0.00
EA	1	Plate cost (Q-cost)	0.35	0.35
			<b>Total Cost</b>	1.72
			<b>Menu Price</b>	10.00
			<b>Gross Profit</b>	8.28
			<b>Food Cost %</b>	17.25%

Menu Item: Grilled Andouille Sausage Sandwich				
Item Description: Locally produced sausage, toasted baguette and housemade onion apple relish.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
OZ-fl	0.5	Oil, olive extra-virgin	0.18	0.09
EA	1	Andouille, fresh 4 oz ea	1.71	1.71
EA	0.33	Bread, baguette	1.91	0.63
OZ-fl	0.5	Mayonnaise, heavy duty	0.12	0.06
OZ-wt	0.5	Lettuce, spring mix	0.17	0.09
EA	1	Onion Apple Relish	0.26	0.26
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
EA	1	Plate cost (Q-cost)	0.35	0.35
			<b>Total Cost</b>	3.19
			<b>Menu Price</b>	13.00
			<b>Gross Profit</b>	9.81
			<b>Food Cost %</b>	24.50%

**CHEF'S NOTE:** Our sausages come from a local shop; we did a second smoke on the Andouille in the test kitchen to enhance the flavor.