

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., tbs., 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:

Housemade Watermelon Pudding and Pacific Rim Grilled Watermelon and Pork Belly Salad

This month's article features two items courtesy of the National Watermelon Promotion Board with assistance from the Culinary Institute of America.

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.

HOUSEMADE WATERMELON PUDDING

- 1 ea. Watermelon Pudding
- 1 ea. Watermelon-Mint Crème Fraiche
- 1 ea. Pistachio crumble
- 1 oz. Watermelon, seedless yellow
- 0.1 oz. Mint, bunch kaffir

LINE COOK INSTRUCTIONS:

1. Remove the plastic food wrap from the pudding portion.
2. Top with minted crème Fraiche.
3. Finish with the pistachio crumble, and garnish with pickled watermelon rind slivers and mint.



PACIFIC RIM GRILLED WATERMELON AND PORK BELLY SALAD

- 3 ea. Watermelon, seedless red
- 3 oz. Watermelon, seedless yellow
- 0.5 oz. Peanut oil
- 0.5 oz. Sesame oil
- 1 ea. Pork belly, Asian braised
- 1 ea. Watermelon Rind Relish
- 1 ea. Watermelon Adobo Dressing
- 0.25 oz. Fresh green Onions
- 0.1 oz. Fresh peeled Shallots
- 0.25 oz. Chili, Thai whole
- 0.5 ea. Watermelon Rind Relish
- 0.1 oz. Fresh Basil, Thai
- 0.5 oz. Fresh Cilantro, bunch
- 0.5 oz. Mint, bunch kaffir

LINE COOK INSTRUCTIONS:

1. Slice the braised pork belly and drop on a hot portion of the griddle or grill to sear all sides. If you prefer, the pork belly can be deep fried. Remove and medium dice.
2. Lightly coat the watermelon triangles with the peanut oil and sear on the grill. Turn once to form a diamond pattern.
3. While the melon is grilling, toss the seared pork belly, watermelon rind relish, dressing, sliced scallions, finely chopped shallots, cilantro, mint and chilis in a mixing bowl.
4. Arrange the grilled melon on a service plate and top with the salad mixture.
5. Garnish with a half portion of relish and Thai fresh basil for service.



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
** Basil, Thai fresh	1 lb.	Bag	12.40	OZ-wt	16	67%	1.157
* Butter, solid unsalted	30/1 lb.	Case	103.62	OZ-wt	480	100%	0.216
** Chili, Thai whole	6/5 lb.	Case	58.99	OZ-wt	480	100%	0.123
** Cilantro, bunch fresh	1/6 ct.	Case	12.28	OZ-wt	16.8	100%	0.731
* Cornstarch	16 oz.	Box	1.43	OZ-fl	30.5	100%	0.047
* Cracker, crumbs graham	1/10 lb.	Case	26.38	OZ-fl	320	100%	0.082
* Crème Fraiche	1/5 lb. avg.	Lb	27.90	OZ-fl	75.2	100%	0.371
* Eggs, large AA	15 dz.	Case	26.79	EA	180	100%	0.149
* Extract, vanilla pure	1/16 oz.	Each	42.60	OZ-fl	16	100%	2.663
** Garlic, fresh peeled	4/5 lb.	Case	88.96	OZ-wt	64	100%	1.390
** Ginger, fresh	1/5 lb. avg.	Case	11.38	OZ-wt	80	100%	0.142
** Limes, fresh	1/24 ct.	Case	13.96	EA	24	100%	0.582
*** Melon, watermelon seedless red	1/3 ct.	Case	42.76	OZ-wt	384	69%	0.161
*** Melon, watermelon seedless yellow	1/3 ct.	Case	49.10	OZ-wt	384	69%	0.185
** Milk, whole	1/6 gal.	Case	23.31	OZ-fl	768	100%	0.030
* Mint, bunch kaffir	1/6 ct.	Case	10.10	OZ-wt	8.4	100%	1.202
* Nut, pistachio shelled	3/2 lb.	Case	86.21	OZ-wt	96	100%	0.898
** Oil, peanut	4 gal.	Can	45.00	OZ-fl	512	100%	0.088
** Onion, green fresh	4/2 lb.	Case	39.85	OZ-wt	128	83%	0.375
** Pork belly, raw uncured	1/10 lb. avg.	Lb	3.10	OZ-wt	16	100%	0.194
*** Salt, sea fine	1/25 lb.	Case	11.66	OZ-fl	375	100%	0.031
** Sauce, fish	12/24 oz.	Case	54.64	OZ-fl	288	100%	0.190
** Sauce, soy dark	4/1 gal.	Case	50.04	OZ-fl	512	100%	0.098
** Sesame oil	1/2 gal.	Bottle	33.38	OZ-fl	64	100%	0.522
** Shallots, peeled fresh	4/4 lb.	Case	51.12	OZ-wt	256	100%	0.200
** Sugar, brown dark	24/1 lb.	Case	26.72	OZ-fl	603	100%	0.044
** Sugar, granulated	24/1 lb.	Case	33.27	OZ-fl	434	100%	0.077
* Sugar, light brown	24/1 lb.	Case	26.56	OZ-fl	603	100%	0.044
** Vinegar, rice wine	4/1 gal.	Case	43.25	OZ-fl	512	100%	0.084

*Housemade Watermelon Pudding **Pacific Rim Grilled Watermelon and Pork Belly Salad *** 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:

- Cilantro weighs about 2.8 oz. per bunch, untrimmed.
- Ginger chopped fresh weighs about 4 ozs.
- Graham cracker crumbs weigh 4 ozs. per cup.
- Green onions weigh about 3.5 ozs. per bunch.
- Mint yields 1.4 ozs. per bunch and weighs .11 ozs per Tbsp. chopped.
- Pistachio nuts shelled weight is 4.5 ozs. per cup.
- Salt, sea fine weighs 0.534 oz per Tbsp.
- Sugar brown weighs 5.1 ozs. per cup.
- Sugar granulated weighs 7.1 ozs. per cup.
- Watermelon yields 69% after removing the rind.

STEP TWO: PREP STAGES

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

HOUSEMADE WATERMELON PUDDING

Watermelon Board			Recipe Cost			
Watermelon Pudding			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Melon, watermelon seedless red	1-½ cups	1. Cube the watermelon into 2" pieces. Place in a commercial blender and liquify, do not strain. 2. Place the sugars, cornstarch and salt in a heavy bottom sauce pan. Blend well using a service spoon. 3. Pour ½ cup of milk into the dry mix and stir to form a smooth paste. 4. Using a wire whisk blend in the remaining milk, watermelon juice and egg yolks. 5. Place the sauce pan over medium heat, indirect if possible. 6. Continue to cook for about 15 minutes stirring frequently with a heat-proof spatula. Do not bring to a boil or simmer. 7. Remove from the heat and allow to cool slightly, whisk in the vanilla and butter. 8. Place the warm pudding directly into the tempered glass pots. 9. Cover each portion with plastic wrap and cool. Refrigerate for service.	OZ-wt	24	0.161	\$ 3.87
Sugar, light brown	½ cup		OZ-fl	4	0.044	\$ 0.18
Sugar, granulated	½ cup		OZ-fl	4	0.077	\$ 0.31
Cornstarch	2 Tbsp.		OZ-fl	3	0.047	\$ 0.14
Salt, sea fine	1 tsp.		OZ-fl	0.16	0.031	\$ 0.00
Milk, whole	1 cup		OZ-fl	8	0.030	\$ 0.24
Eggs, large AA	4 yolk only		EA	4	0.149	\$ 0.60
Extract, vanilla pure	2 tsp.		OZ-fl	0.33	2.663	\$ 0.88
Butter, solid unsalted	4 Tbsp.		OZ-wt	2	0.216	\$ 0.43
					-	\$ -
				-	\$ -	
				-	\$ -	
TOOLS/EQUIP.: Ounce scale, measuring spoons, measuring cup, French knife, commercial blender, heavy bottom sauce pan, service spoon, heat proof spatula, wire whisk and plastic food wrap.			Total		\$ 6.65	
STATION: Prep cook			RU		EA	
YIELD: About 10 portions			# of RU		10	
SHELF LIFE: 3 days			RU Cost		\$ 0.67	

CHEF'S NOTE: Watermelon weight is approximate; you'll need about 3 cups of juice. Always add the vanilla and butter when cooled slightly. This will prevent the butter from breaking down and the vanilla from evaporating.

Watermelon Board			Recipe Cost			
Watermelon-Mint Crème Fraiche			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Crème Fraiche	1-½ cups	1. Place the mint and creme fraiche in a medium mixing bowl and blend with a wire whisk. 2. Gently blend in the chopped melon. 3. Refrigerate for service.	OZ-fl	24	0.371	\$ 8.90
Mint, bunch kaffir	1 oz. finely chopped		OZ-wt	1	1.202	\$ 1.20
Melon, watermelon seedless red	½ lb. finely diced, rind removed		OZ-wt	8	0.161	\$ 1.29
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
TOOLS/EQUIP.: Ounce scale, cup measure, medium mixing bowl and wire whisk.			Total		\$ 11.40	
STATION: Pantry			RU		EA	
YIELD: About 20-1.5 oz. portions			# of RU		20	
SHELF LIFE: 1 shift			RU Cost		\$ 0.57	

STEP TWO: PREP STAGES

PACIFIC RIM GRILLED WATERMELON AND PORK BELLY SALAD

Watermelon Board			Recipe Cost			
Asian Braised Pork Belly			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Melon, watermelon seedless red	2 lbs. cleaned	1. Cut the pork belly across the grain into 6 equal strips. 2. Place the pork on the griddle and brown all 4 sides. Set aside to cool to room temp. 3. Cut the watermelon into cubes, 2"X2" and place in a commercial blender. Blend on low speed then increase to medium/high. 4. Strain the juice using a fine mesh strainer and set aside. 5. Place the melon juice, sugar, vinegar, soy, fish sauce and lime juice in a medium mixing bowl and blend with a wire whisk until thoroughly mixed. 6. Place the pork belly strips in a small roasting pan and cover with melon juice mixture. 7. Cover with foil or lid and place in a 325° still oven for 2 hours. 8. Remove from the oven and allow to cool slightly. Remove the pork and drain thoroughly. 9. Refrigerate for service.	OZ-wt	32	0.161	\$ 5.16
Pork belly, raw uncured	6 lbs.		OZ-wt	96	0.194	\$ 18.60
Sugar, granulated	1 cup		OZ-fl	8	0.077	\$ 0.61
Vinegar, rice wine	¾ cup		OZ-fl	6	0.084	\$ 0.51
Sauce, soy dark	6 Tbsp.		OZ-fl	3	0.098	\$ 0.29
Sauce, fish	6 Tbsp.		OZ-fl	3	0.190	\$ 0.57
Limes, fresh	2 ea. juiced		EA	2	0.582	\$ 1.16
					-	\$ -
					-	\$ -
				-	\$ -	
				-	\$ -	
				-	\$ -	
				-	\$ -	
TOOLS/EQUIP.: Ounce scale, measuring spoons, measuring cup, French knife, commercial blender, fine mesh strainer, medium mixing bowl, wire whisk and roasting/braising pan with lid or foil. STATION: Prep cook YIELD: About 22-3 oz. portions SHELF LIFE: 5 days			Total		\$ 26.91	
			RU		EA	
			# of RU		22	
			RU Cost		\$ 1.22	

CHEF'S NOTE: Reserve the trimmed rind for the watermelon rind relish.

Watermelon Board			Recipe Cost			
Watermelon Rind Relish			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Melon, watermelon seedless red	1-½ lbs. rind	1. Trim away the outer skin and medium dice the rind. 2. Place the cut watermelon rind in a large stainless steel mixing bowl. 3. Combine the remaining ingredients in a second mixing bowl and blend thoroughly with a wire whisk. 4. Pour the marinade over the diced rind and mix gently by hand. 5. Refrigerate a minimum of 2 hours prior to service.	OZ-wt	24	0.161	\$ 3.87
Sugar, light brown	6 Tbsp.		OZ-fl	3	0.044	\$ 0.13
Vinegar, rice wine	1 cup		OZ-fl	8	0.084	\$ 0.68
Cilantro, bunch fresh	2 ozs. coarsely chopped		OZ-wt	2	0.731	\$ 1.46
Limes, fresh	5 ea. juiced		EA	5	0.582	\$ 2.91
Garlic, fresh peeled	2 ozs. finely chopped		OZ-wt	2	1.390	\$ 2.78
Ginger, fresh	1 oz. finely chopped		OZ-wt	1	0.142	\$ 0.14
Salt, sea fine	1 tsp.		OZ-fl	0.16	0.031	\$ 0.00
					-	\$ -
				-	\$ -	
				-	\$ -	
				-	\$ -	
TOOLS/EQUIP.: Ounce scale, measuring spoons, measuring cup, French knife, 2 large stainless steel mixing bowls and wire whisk. STATION: Pantry YIELD: About 15-3 oz. portions SHELF LIFE: 1 day			Total		\$ 11.98	
			RU		EA	
			# of RU		15	
			RU Cost		\$ 0.80	

