

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:

Watermelon and Ahi Poke and Lamb Sliders with Watermelon Slaw

This month's article features two items supplied by the National Watermelon Promotional Board. Author Chef Tom Bruce of Central Coast Food & Beverage created the recipe mapping for these dishes.



MENU ITEMS

Menu items featured in our RecipeMapping department are available online at www.RestaurantOwner.com/recipe.htm.

WATERMELON AND AHI POKE

- 1 ea. Pickled Mustard Seeds
- 1 ea. Poke
- 1 ea. Fried Shallots
- 1.5 oz. Sriracha Aioli

LINE COOK INSTRUCTIONS:

1. Garnish a chilled oval plate with 3 striped watermelon skins, skin side up.
2. Place the watermelon rind bowl on the plate, slightly off-centered.
3. Place the poke in the center of the rind bowl, and add the Sriracha aioli, top with fried shallots.
4. Shingle red watermelon slices on the plate, arrange the yellow cubes around the poke.
5. Finish with pickled mustard seeds as a garnish.



LAMB SLIDERS WITH WATERMELON SLAW

- 2 ea. Hamburger Slider Buns
- 1 oz. Feta Crème
- 1 ea. Pulled Lamb
- 1 ea. Watermelon Slaw
- 1 oz. Tortilla chips, tri-colored

LINE COOK INSTRUCTIONS:

1. Place the buns on the griddle to toast, they should be lightly crusted and golden brown.
2. Spread the Feta Crème evenly on both the tops and bottoms.
3. Place the pulled lamb on each bun, make sure the lamb is well drained.
4. Top with watermelon slaw, pin the tops with sandwich pics.
5. Serve with tri-color chips.



STEP ONE: INVENTORY MASTER

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, whole berries average 96 berries per fl. oz.
- Celery seed, whole weighs 0.256 oz. per Tbsp.
- Cilantro averages 2.8 ozs. per bunch, chopped weighs about 1.5 oz. per cup.
- Cumin ground weighs 0.208 oz. per Tbsp.
- Garlic powder weighs 0.231 oz. per Tbsp.
- Ginger fresh chopped weighs 0.25 oz. per Tbsp.
- Large onions weigh around 14 ozs. each.
- Mustard seed, whole weighs 0.4 oz. per Tbsp.
- Paprika ground weighs 0.244 oz. per Tbsp.
- Pepper, black ground weighs 0.238 oz. per Tbsp.
- Salt, sea weighs 0.534 oz. per Tbsp.
- Shallots fresh cleaned weighs 4.9 oz. per cup.
- Sugar weighs 7.1 ozs. per cup.
- Tuna, Ahi steaks are 6 oz. portions, frozen.
- Watermelon, mini 1 lb. cleaned yields 9 fl. ozs. of juice.
- Watermelon, yellow yields about 50% when cubed, weighs 5.9 ozs. per cup.

Item Description	Case Pack/Size	Purchase Unit (PU)		Recipe Cost Unit (RU)			
		U/M	Current Price	U/M	# RU per PU	Yield %	Cost
** Allspice, whole berry	16 oz.	Jar	8.90	OZ-wt	16	100%	0.556
** Broth, chicken	12/49 oz.	Case	40.45	OZ-fl	588	100%	0.069
** Bun, hamburger slider	150/1.25 oz.	Case	35.16	EA	150	100%	0.234
** Carrots, fresh	1/25 lb.	Case	16.67	OZ-wt	400	81%	0.051
** Cheese, cream whipped	4/3 lb.	Case	34.55	OZ-wt	192	100%	0.180
** Cheese, Feta crumbles	2/5 lb.	Case	31.32	OZ-wt	160	100%	0.196
** Chip, tortilla tri-colored	6/2 lb.	Case	22.45	OZ-wt	192	100%	0.117
** Cilantro, bunch fresh	1/6 ct.	Box	9.47	OZ-wt	17	47%	1.199
** Cloves	1/12 oz.	Each	36.15	EA	3240	100%	0.011
** Cumin, ground	1/16 oz.	Each	21.54	OZ-fl	38	100%	0.561
** Garlic, powder	6/21 oz.	Case	70.15	OZ-fl	272	100%	0.258
** Garlic, whole peeled	1/5 lb.	Jar	19.70	OZ-wt	80	100%	0.246
** Ginger, fresh	1/1 lb.	Each	5.70	OZ-wt	16	100%	0.356
* Juice, lemon	1/1 gal.	Each	4.62	OZ-fl	128	100%	0.036
** Lamb, boneless shoulder	1/10 lb. avg.	Lb	9.92	OZ-wt	16	100%	0.620
** Lime, fresh	1/24 ct	Box	8.46	EA	24	100%	0.353
* Mayonnaise, heavy duty	4/1 gal.	Case	26.34	OZ-fl	512	100%	0.051
* Mirin	1/2 gal.	Bottle	11.50	OZ-fl	64	100%	0.180
* Mustard seed, yellow	1/24 oz.	Each	9.90	OZ-fl	30	100%	0.330
* Nuts, Macadamia pieces	1/5 lb.	Case	77.48	OZ-wt	80	100%	0.969
** Oil, olive extra-virgin	8/16.7 oz.	Case	76.50	OZ-fl	134	100%	0.573
* Oil, sesame toasted pure	6/1 ltr.	Case	66.23	OZ-fl	203	100%	0.326
* Oil, vegetable	6/1 gal.	Case	37.53	OZ-fl	768	100%	0.049
* Onion, green	4/2 lb.	Box	17.18	OZ-wt	128	82%	0.164
** Onion, yellow jumbo	1/50 lb.	Bag	21.47	OZ-wt	800	91%	0.029
** Onions, red	1/25 lb.	Bag	18.82	OZ-wt	400	91%	0.052
** Oregano, dried	3/1.75 lb.	Case	41.57	OZ-fl	15.158	100%	2.742
** Paprika, smoked	1/17 oz.	Each	15.29	OZ-fl	34.85	100%	0.439
** Pepper, black	6/18 oz.	Case	88.15	OZ-fl	226.8	100%	0.389
** Pepper, jalapeno fresh	1/10 lb.	Box	11.69	OZ-wt	160	93%	0.079
** Peppercorns, black	1/16 oz.	Each	16.18	EA	11200	100%	0.001
** Radish, red fresh	1/5 lb.	Box	14.34	OZ-wt	80	91%	0.197
*** Salt, sea	12/26 oz.	Case	36.96	OZ-fl	293.28	100%	0.126
** Sauce, soy light	6/1/2 gal.	Case	40.41	OZ-fl	384	100%	0.105
* Sauce, Sriracha	12/28 oz.	Case	29.88	OZ-fl	336	100%	0.089
* Seaweed, Nori sheet	10/50 ct.	Box	66.40	EA	500	100%	0.133
** Seed, celery whole	1/1 lb.	Each	8.57	OZ-fl	31.2	100%	0.275
* Seeds, sesame black	12/8 oz.	Case	40.24	OZ-wt	144	100%	0.279
* Shallot, peeled fresh	4 lb.	Box	11.50	OZ-wt	64	100%	0.180
** Spice, pickling	1/14 oz.	Each	21.70	OZ-wt	14	100%	1.550
* Sugar, granulated	1/25 lb.	Bag	17.41	OZ-fl	452	100%	0.039
* Tuna, ahi steak	1/10 lb.	Case	61.41	OZ-wt	160	100%	0.384
** Vinegar, cider	4/1 gal.	Case	26.86	OZ-fl	512	100%	0.052
* Vinegar, rice natural	4/1 gal.	Case	35.31	OZ-fl	512	100%	0.069
*** Water	gallon	Bottle	0.00	OZ-fl	128	100%	0.000
*** Watermelon, mini	1/8 ct.	Box	18.40	EA	8	100%	2.300
*** Watermelon, yellow	1/8 ct.	Box	19.10	EA	8	100%	2.388

*Watermelon and Ahi Poke **Lamb Sliders with Watermelon Slaw ***Both

STEP TWO: PREP STAGES

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

WATERMELON AND AHI POKE

National Watermelon Promotional Board			Recipe Cost			
Poke			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Tuna, ahi steak	2 lb. ½" diced	POKE 1. Using a large stainless steel mixing bowl, combine the diced ahi with all of the ingredients except the watermelons. 2. Toss lightly by hand to mix, let stand for 10 minutes then remix. 3. Refrigerate for service. WATERMELON PREP 1. Carefully peel the mini watermelons, set the strips aside for the portion bases. 2. Cut the mini watermelon into 1/4's and remove the flesh, set aside. 3. Cut the yellow watermelon into 1/6's. Remove the rind, set aside for bowls. 4. Cube the yellow watermelon flesh and set aside. 5. Slice the red watermelon flesh and set aside.	OZ-wt	32	0.384	\$ 12.28
Seaweed, Nori sheet	4 sheets julienne		EA	4	0.133	\$ 0.53
Sauce, soy light	¾ cup		OZ-fl	5.4	0.105	\$ 0.57
Oil, sesame toasted pure	1 Tbsp.		OZ-fl	0.5	0.326	\$ 0.16
Onion, green	2 ozs. thin bias slice		OZ-wt	2	0.164	\$ 0.33
Garlic, whole peeled	2 ozs. thnly sliced		OZ-wt	2	0.246	\$ 0.49
Ginger, fresh	¼ oz. finely chopped		OZ-wt	0.25	0.356	\$ 0.09
Nuts, Macadamia pieces	6 ozs. toasted and chopped		OZ-wt	6	0.969	\$ 5.81
Seeds, sesame black	¼ oz. finely chopped		OZ-wt	0.25	0.279	\$ 0.07
Watermelon, yellow	2 each		EA	2	2.388	\$ 4.78
Watermelon, mini	2 each	EA	2	2.300	\$ 4.60	
TOOLS/EQUIP.: French knife, paring knife, ounce scale, measuring cup, measuring spoons and large stainless steel mixing bowl			Total		\$ 29.71	
STATION: Pantry			RU		EA	
YIELD: 12-3 oz. poke portions and melon granish			# of RU		12	
SHELF LIFE: 1 day			RU Cost		\$ 2.48	

National Watermelon Promotional Board			Recipe Cost			
Pickled Mustard Seeds			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Mustard seed, yellow	½ cup	1. Combine all of the ingredients in a medium, heavy-bottom saucepan. 2. Bring to a boil, stirring often with a wire whisk. 3. Remove to indirect heat and continue to cook on low for 30-40 minutes or until thickened. 4. Remove and cool for service, store in a food-grade container.	OZ-fl	4	0.330	\$ 1.32
Vinegar, rice natural	1 cup		OZ-fl	8	0.069	\$ 0.55
Water	1 cup		OZ-fl	8	-	\$ -
Mirin	½ cup		OZ-fl	4	0.180	\$ 0.72
Sugar, granulated	4 Tbsp.		OZ-fl	2	0.039	\$ 0.08
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
TOOLS/EQUIP.: Cup measure, measuring spoons, medium sauce pan, wire whisk and food grade container.			Total		\$ 2.67	
STATION: Pantry			RU		EA	
YIELD: Garnish for 12 portions of poke			# of RU		12	
SHELF LIFE: 4 days			RU Cost		\$ 0.22	

STEP TWO: PREP STAGES

LAMB SLIDERS WITH WATERMELON SLAW

National Watermelon Promotional Board Pulled Lamb			Batch
INGREDIENTS	MEASURE	PROCEDURE	
Lamb, boneless shoulder	10 lbs.	1. Combine the paprika, oregano, cumin, and garlic powder. 2. Season the lamb with salt and pepper, let stand for 10 minutes. Rub the dry spice mix evenly over the lamb. 3. Add the onion and garlic to a roasting pan, place the lamb on top. 4. Add the chicken stock and watermelon juice, cover and place in a 300° still oven for about 3.5 hours. 5. The lamb is done when a roasting fork inserts and removes easily. 6. Remove the braised lamb and allow to cool enough to handle. 7. Reduce the cooking liquid by about 1/3, skim any fat. 8. Break the cooled lamb into large chunks, removing any fat as you go. Cover with the reduced stock and hold on the hotline for service.	
Paprika, smoked	1 Tbsp.		
Oregano, dried	1 Tbsp.		
Cumin, ground	1 Tbsp.		
Garlic, powder	1 Tbsp.		
Oil, olive extra-virgin	1/4 cup		
Onion, yellow jumbo	12 ozs. rough cut		
Garlic, whole peeled	2 ozs. lightly crushed		
Broth, chicken	4 cups		
Watermelon, mini	1 each juiced		
Salt, sea	1 Tbsp.		
Pepper, black	2 tsp.		
TOOLS/EQUIP.: Pound scale, ounce scale, measuring cup, measuring spoons, stainless steel mixing bowl, roasting pan w/cover and roasting fork.			
STATION: Line cook			
YIELD: About 64/1 1/2 oz. portions			
SHELF LIFE: 2 days			

Recipe Cost			
RU	# of RU	RU Cost	Cost
OZ-wt	160	0.620	\$ 99.23
OZ-fl	0.5	0.439	\$ 0.22
OZ-fl	0.5	2.742	\$ 1.37
OZ-fl	0.5	0.561	\$ 0.28
OZ-fl	0.5	0.258	\$ 0.13
OZ-fl	2	0.573	\$ 1.15
OZ-wt	12	0.029	\$ 0.35
OZ-wt	2	0.246	\$ 0.49
OZ-fl	32	0.069	\$ 2.20
EA	1	2.300	\$ 2.30
OZ-fl	0.5	0.126	\$ 0.06
OZ-fl	0.33	0.389	\$ 0.13
		-	\$ -
		-	\$ -
Total			\$ 107.91
RU			EA
# of RU			32
RU Cost			\$ 3.37

CHEF'S NOTE: Try using pre-cut lamb stew meat, 2" cubes, in place of the whole shoulder. This will greatly reduce the cooking time.

National Watermelon Promotional Board Watermelon Slaw			Batch
INGREDIENTS	MEASURE	PROCEDURE	
Watermelon, mini	1 each	1. Remove the rind from the watermelon and cut the flesh into strips, set aside. 2. Place the cut red onions in ice water and let stand for 10 minutes, drain. 3. Combine all of the ingredients except the cut melon in a large stainless steel mixing bowl. Toss by hand to mix, taking care not to break up the pickles anymore than necessary. 4. Add the cut watermelon and gently toss. 5. Cover and refrigerate for 2 hours prior to service. Adjust salt as necessary.	
Carrots, fresh	12 ozs. peeled and grated		
Onions, red	4 ozs. finely cut with grain		
Cilantro, bunch fresh	1 1/2 ozs. stemmed and chopped		
Lime, fresh	3 each juiced		
Pepper, jalapeno fresh	1 1/2 ozs. seeded and chopped		
Salt, sea	2 tsp.		
Radish, red fresh	3 ozs. julienne		
Watermelon Rind Pickles	12 ozs. julienne		
TOOLS/EQUIP.: French knife, ounce scale, measuring spoons, stainless steel mixing bowl, small mixing bowl (for red onions) and food grade container.			
STATION: Pantry			
YIELD: Enough for 28 slider portions			
SHELF LIFE: 2 days			

Recipe Cost			
RU	# of RU	RU Cost	Cost
EA	1	2.300	\$ 2.30
OZ-wt	12	0.051	\$ 0.62
OZ-wt	4	0.052	\$ 0.21
OZ-wt	1.5	1.199	\$ 1.80
EA	3	0.353	\$ 1.06
OZ-wt	1.5	0.079	\$ 0.12
OZ-fl	0.33	0.126	\$ 0.04
OZ-wt	3	0.197	\$ 0.59
OZ-wt	12	0.169	\$ 2.03
		-	\$ -
		-	\$ -
		-	\$ -
Total			\$ 8.76
RU			EA
# of RU			28
RU Cost			\$ 0.31

CHEF'S NOTE: Icing the onions will help keep them from becoming stronger as they sit. I try to avoid onions in any raw mixture that will be held for long, try adding them as you go, if possible.

STEP TWO: PREP STAGES CONTINUED

LAMB SLIDERS WITH WATERMELON SLAW

National Watermelon Promotional Board Watermelon Rind Pickles			Batch
INGREDIENTS	MEASURE	PROCEDURE	
Water	4 cups	1. Cut the watermelon rind into pieces 1" X ½" X 2", and set aside. 2. Combine the salt and water in a large saucepan and bring to a boil. Add the cut watermelon rind and return to a simmer, continue to cook for 4-5 minutes. 3. Strain using a colander and transfer the cooked rind to a food-grade container. 4. Combine the remaining ingredients in a heavy bottom saucepan and bring to a boil, stirring frequently. 5. Reduce to a simmer and continue to cook for 15 minutes. 6. Allow the mixture to cool slightly, then pour over the cooked watermelon rinds. If necessary, place a service plate on top to ensure the rinds are completely submerged. 7. Cover and refrigerate for 24 hours prior to use.	
Salt, sea	1 Tbsp.		
Cloves	4 each		
Watermelon, mini	1 each, rind only		
Seed, celery whole	¼ tsp.		
Sugar, granulated	¾ cup		
Allspice, whole berry	¼ oz.		
Peppercorns, black	5 each		
Garlic, whole peeled	2 ozs.		
Spice, pickling	¼ oz.		
Ginger, fresh	½ oz.		
Water	2 cups		
Vinegar, cider	½ cup		
TOOLS/EQUIP.:			
STATION:			Prep cook
YIELD:			24 ozs. of pickles
SHELF LIFE:			7 days

Recipe Cost			
RU	# of RU	RU Cost	Cost
OZ-fl	32	-	\$ -
OZ-fl	0.5	0.126	\$ 0.06
EA	4	0.011	\$ 0.04
EA	1	2.300	\$ 2.30
OZ-fl	0.04	0.275	\$ 0.01
OZ-fl	6	0.039	\$ 0.23
OZ-wt	0.25	0.556	\$ 0.14
EA	5	0.001	\$ 0.01
OZ-wt	2	0.246	\$ 0.49
OZ-wt	0.25	1.550	\$ 0.39
OZ-wt	0.5	0.356	\$ 0.18
OZ-fl	16	-	\$ -
OZ-fl	4	0.052	\$ 0.21
		-	\$ -
Total		\$	4.06
RU		OZ-wt	
# of RU			24
RU Cost		\$	0.17

CHEF'S NOTE: This makes a great primary ingredient in salsas, etc. Try substituting these for pickle garnishes.

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: Watermelon and Ahi Poke				
Item Description: Pickled mustard seeds, Sriracha aioli, housemade poke finished with crispy fried shallots.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
EA	1	Pickled Mustard Seeds	0.22	0.22
EA	1	Poke	2.48	2.48
OZ-wt	0.5	Fried Shallots	0.23	0.11
OZ-fl	2	Sriracha Aioli	0.05	0.11
			0.00	0.00
			0.00	0.00
			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
Total Cost				3.27
Menu Price				12.00
Gross Profit				8.73
Food Cost %				27.25%

CHEF'S NOTE: Fried shallots are done in vegetable oil in a small pot on top of the range, not in the fryer. Sriracha aioli contains mayonnaise, Sriracha and lemon juice.

Menu Item: Lamb Sliders with Watermelon Slaw				
Item Description: Slow roasted and pulled to order, served with Feta Crème and tri-colored tortilla chips.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
EA	2	Bun, hamburger slider	0.23	0.47
OZ-wt	1	Feta Crème	0.19	0.19
EA	1	Pulled Lamb	3.37	3.37
EA	1	Watermelon Slaw	0.31	0.31
OZ-wt	1	Chip, tortilla tri-colored	0.12	0.12
			0.00	0.00
			0.00	0.00
			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
Total Cost				4.81
Menu Price				14.00
Gross Profit				9.19
Food Cost %				34.35%

CHEF'S NOTE: Feta Crème is equal parts by weight of crumbled Feta and whipped cream cheese.