

RecipeMapping

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. We've said it once, we'll say it again: Success in the restaurant business is often measured in pennies. Toss in an inaccurate purchase order here, a dash of wasted product there, and mix in a bit of inefficient labor use, and you've got a recipe for slim margins. And while your friends and family never minded waiting an extra half-hour or so for your famous meatballs, your restaurant

guests will not be so forgiving to 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. We call it RecipeMapping — a three-step process that allows you to add new items to the menu consistently, methodically and profitably. We hope it helps "map out" your strategy for adding items to your menu, as well as help you put your startup "on the map."

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 individual 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: Grilled Mahi Tacos and Citrus Soy Skirt Steak

This month's featured menu items were provided by Sacramento Food & Beverage. Tom Bruce, founding chef and owner of Sacramento Food & Beverage, has worked with hundreds of restaurants in developing their recipes and cost-control systems.



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

Grilled Mahi Tacos

2	ea.	6-inch flour tortillas
6	oz.	Marinated mahi mahi strips
½	oz.	Shredded cabbage
¼	ea.	Sliced avocado
1½	oz.	Feta cheese crumbles
2¼	oz.	Pico de gallo
5	fl. oz.	Guatemalan black beans
¼	ea.	Lime wedges
1	fl. oz.	Avocado cream
As needed		Chopped cilantro



Line Cook Instructions:

1. Place 6 oz. of the mahi strips on a medium-hot section of the grill.
2. Grill, turning once or twice to cook; take care not to overcook.
3. While the fish is grilling, lightly brown the tortillas in a sauté pan or on the griddle.
4. Place 3 oz. of grilled fish in each tortilla; add cabbage, avocado slices, feta and pico de gallo in that order; finish with a drizzle of avocado cream.
5. Plate with black beans garnished with remaining feta and pico de gallo, lime wedges and then sprinkle with chopped cilantro for service.

Citrus Soy Skirt Steak

6	oz.	Marinated skirt steak portions (3 2-oz. pieces)
1	ea.	Sweet potato
1	oz.	Roasted cashew butter
5	oz.	Spicy Asian slaw
1	ea.	Large scallion



Line Cook Instructions:

1. Lightly mist the steak pieces with olive oil before grilling.
2. Place the steak pieces on a hot section of the grill and cross-mark to form a diamond pattern.
3. While the steak is cooking, place a split scallion cut-side down on the grill to mark, turn over quickly and remove from the heat.
4. Turn the steak and finish cooking to desired doneness.
5. Plate with a baked sweet potato, Asian slaw and grilled scallion.
6. Add the cashew butter at the last moment and garnish with chopped scallions (green part only).

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Step 1 Inventory Master

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Item Description	Case Pack/Size	Purchase Unit (PU)		Recipe Cost Unit (RU)			
		U/M	Current Price	U/M	# RU per PU	Yield %	Cost
** Skirt steak, bulk	2/10# bag	Case	26.60	OZ-wt	320	76%	0.109
* Mahi mahi	5/1# bag	Case	19.50	OZ-wt	80	100%	0.244
* Cheese, feta, crumbles	3#	Bag	9.30	OZ-wt	48	100%	0.194
* Sour cream	2/5#	Case	15.10	OZ-fl	150	100%	0.101
*** Butter, salted	30/1#	Case	68.36	OZ-wt	480	100%	0.142
* Avocado, Haas	48 ct.	Box	57.00	EA	48	100%	1.188
*** Cabbage, shredded	5#	Bag	5.70	OZ-wt	80	100%	0.071
** Carrots, julienne	5/2#	Case	10.50	OZ-wt	160	100%	0.066
** Cilantro	3 bunch	Bag	1.15	OZ-wt	3.9	100%	0.295
** Bean sprouts	5/1#	Box	3.70	OZ-wt	80	100%	0.046
** Lettuce, iceberg	3 ea.	Bag	1.90	OZ-wt	69	78%	0.035
* Onion, yellow	5/0#	Bag	19.43	OZ-wt	800	90%	0.027
*** Scallions, large	12 bu./3 ea.	Bag	7.20	EA	36	100%	0.200
** Juice, orange	gal.	Bottle	7.10	OZ-fl	128	100%	0.055
* Juice, lemon	qt.	Bottle	2.05	OZ-fl	32	100%	0.064
*** Limes	200 ct.	Box	21.50	EA	200	100%	0.108
*** Garlic, whole peeled	5#	Jar	8.05	OZ-wt	80	100%	0.101
** Potato, sweet	40#	Box	28.40	EA	64	100%	0.444
** Ginger, fresh	lb.	Each	0.97	OZ-wt	16	100%	0.061
** Dressing, Thai peanut	4/1-gal.	Case	62.53	OZ-fl	512	100%	0.122
* Black beans	6/10#	Case	23.26	OZ-wt	960	100%	0.024
* Hot sauce, mild	gal.	Bottle	12.35	OZ-fl	128	100%	0.096
* Chicken broth	12/46-fl. oz.	Case	36.20	OZ-fl	552	100%	0.066
** Sugar, brown	24/1#	Case	29.25	OZ-wt	384	100%	0.076
* Oil, canola	gal.	Can	8.93	OZ-fl	128	100%	0.070
* Oil, olive	6/1-gal.	Case	85.53	OZ-fl	768	100%	0.111
** Oil, sesame	1 gal.	Can	32.90	OZ-fl	128	100%	0.257
*** Vinegar, rice wine	4/1-gal.	Case	57.90	OZ-fl	512	100%	0.113
*** Soy sauce, low-sodium	1/2 gal.	Can	7.40	OZ-fl	64	100%	0.116
** Chinese 5-spice	10 oz.	Jar	6.21	OZ-fl	20	100%	0.311
* Spice, granulated garlic	4.5#	Jar	22.24	OZ-fl	96	100%	0.232
* Spice, oregano leaves	1.5#	Jar	26.30	OZ-fl	120	100%	0.219
* Spice, cumin	4.5#	Jar	33.50	OZ-fl	173	100%	0.194
** Spice, sea salt	12/3#	Case	22.79	OZ-fl	512	100%	0.045
** Spice, black pepper	5#	Jar	51.38	OZ-fl	168	100%	0.306
* Tortilla, flour, 6-inch	12/20-ct.	Case	16.34	EA	240	100%	0.068
** Cashews, unsalted pieces	3/2# bag	Box	42.10	OZ-wt	96	100%	0.439

* Mahi Tacos ** Skirt Steak ***Both Items

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 units 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:

- 1 cup of Chinese 5-spice weighs about 4 oz.
- 1 cup of sea salt weighs about 9 oz.
- 1 cup of black pepper weighs about 3.8 oz.
- 1 cup of granulated garlic weighs about 6 oz.
- 1 cup of oregano leaf weighs about 1.6 oz.
- 1 cup of raw black beans yields about 3 cups cooked.
- There are about 2½ cups in a pound of black beans.

Step 2 The Prep Stage — Grilled Mahi Tacos

Sacramento Food and Beverage - Recipe Card			Recipe Cost			
Marinated Mahi Mahi			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Mahi mahi	3 lb.	1. Using a large mixing bowl, combine all of the ingredients except the mahi mahi. 2. Mix thoroughly using a wire whisk. 3. Add the mahi mahi pieces and mix gently using your hands. 4. Cover and refrigerate for 6-8 hours. 5. Drain thoroughly and refrigerate for service. Discard the leftover marinade.	OZ-wt	48	0.244	\$ 11.70
Oil, canola	¾ cup		OZ-fl	6	0.070	\$ 0.42
Soy sauce, low-sodium	¾ cup		OZ-fl	6	0.116	\$ 0.69
Vinegar, rice wine	1½ fl. oz.		OZ-fl	1.5	0.113	\$ 0.17
Spice, granulated garlic	1 Tbsn.		OZ-fl	0.5	0.232	\$ 0.12
Juice, lemon	1½ fl. oz.		OZ-fl	1.5	0.064	\$ 0.10
					-	\$ -
					-	\$ -
					-	\$ -
					-	\$ -
TOOLS/EQUIP.: Pound scale, measuring cups, measuring spoons, large mixing bowl and wire whisk. STATION: Prep cook YIELD: About 13 6-oz. portions SHELF LIFE: 2 days			Total \$ 13.19 RU OZ-wt # of RU 80 RU Cost \$ 0.16			

Marinated Mahi: Chef's note: A subrecipe is used but not shown for preparing the avocado cream. To make it, place four split avocados, 4 fl. oz. of sour cream and the juice of one lime into a commercial blender. Bump the blender three or four times to begin the mixing process, and then blend thoroughly on medium speed.

Sacramento Food and Beverage - Recipe Card			Recipe Cost			
Guatemalan Black Beans			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Black beans	3 lb.	1. Before beginning this procedure place the beans in a medium mixing bowl and cover with tap water, let stand overnight. 2. Drain the beans using a colander and set aside. 3. Using a medium saucepot combine all of the ingredients except the water. Bring to a simmer and continue to cook over low heat. 4. As the stock is absorbed add the water in small amounts, to achieve the desired consistency you may not need all of the water. 5. When the beans are just tender adjust the seasonings, add salt if desired; remove from heat. This should take about an hour. 6. Hold on the hot line for service or cool and refrigerate.	OZ-wt	48	0.024	\$ 1.16
Water	4 cups		OZ-fl	32	-	\$ -
Chicken broth	2 qt.		OZ-fl	64	0.066	\$ 4.20
Spice, oregano leaves	1 Tbsn.		OZ-fl	0.5	0.219	\$ 0.11
Spice, cumin	3 Tbsn.		OZ-fl	1.5	0.194	\$ 0.29
Hot sauce, mild	3 Tbsn.		OZ-fl	1.5	0.096	\$ 0.14
Onion, yellow	12 oz. medium dice		OZ-wt	12	0.027	\$ 0.32
Garlic, whole peeled	3 oz. chopped		OZ-wt	3	0.101	\$ 0.30
					-	\$ -
					-	\$ -
TOOLS/EQUIP.: Pound scale, ounce scale, measuring spoons, measuring cup, quart measure, large mixing bowl, colander, French knife and heavy saucepot. STATION: Prep cook YIELD: About 32 5-fl.-oz. portions SHELF LIFE: 4 days			Total \$ 6.53 RU OZ-fl # of RU 160 RU Cost \$ 0.04			

Guatemalan Black Beans: Chef's note: A single menu item may have several "subrecipes," and a recipe card should be created for each step.

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Step 2 The Prep Stage — Citrus Soy Skirt Steak

Sacramento Food and Beverage - Recipe Card			Recipe Cost			
Marinated Skirt Steak			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Skirt steak, bulk	5 lb. trimmed	1. Using a large mixing bowl, combine the orange juice, soy, vinegar and sesame oil. 2. Juice the 3 limes and add to the mixture. 3. Add the garlic and mix well using a wire whisk. 4. Add 4 scallions, white part only, split lengthwise, and unpeeled sliced ginger. 5. Cut the cleaned sections of skirt steak into 2½- to 3-oz pieces; add to the marinade. 6. Cover and refrigerate, then let stand for 12 hours, turning once or twice to ensure an evenly flavored product. 7. Drain thoroughly and lay out in a single layer. Season liberally with 5-spice; pan and refrigerate for service.	OZ-wt	80	0.109	\$ 8.75
Juice, orange	2¼ cup		OZ-fl	18	0.055	\$ 1.00
Limes	3 each		EA	3	0.108	\$ 0.32
Soy sauce, low-sodium	1½ cup		OZ-fl	12	0.116	\$ 1.39
Vinegar, rice wine	3 fl. oz.		OZ-fl	3	0.113	\$ 0.34
Ginger, fresh	4½ oz. thin-sliced		OZ-wt	4.5	0.061	\$ 0.27
Garlic, whole peeled	2 oz. sliced		OZ-wt	2	0.101	\$ 0.20
Oil, sesame	3 fl. oz.		OZ-fl	3	0.257	\$ 0.77
Scallions, large	4 ea. white part only		EA	4	0.200	\$ 0.80
Chinese 5-spice	2 Tbsn.		OZ-fl	1	0.311	\$ 0.31
				-	\$ -	
				-	\$ -	
TOOLS/EQUIP.: Ounce scale, measuring cups, measuring spoons, French knife, large mixing bowl and wire whisk. STATION: Prep cook YIELD: 10 3-piece portions SHELF LIFE: 3 days			Total \$ 14.15 RU EA # of RU 30 RU Cost \$ 0.47			

Marinated Skirt Steak: Chef's note: Much of the leftover skirt steak trim can be used for carne asada or stir fry dishes.

Sacramento Food and Beverage - Recipe Card			Recipe Cost			
Spicy Asian Slaw			Batch			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost
Cabbage, shredded	18 oz.	1. Using a large mixing bowl, combine all ingredients. 2. Mix thoroughly by hand; lightly season with sea salt if desired. 3. Refrigerate for service.	OZ-wt	18	0.071	\$ 1.28
Bean sprouts	18 oz. rough-cut		OZ-wt	18	0.046	\$ 0.83
Carrots, julienne	12 oz.		OZ-wt	12	0.066	\$ 0.79
Cilantro	1½ oz. chopped		OZ-wt	1.5	0.295	\$ 0.44
Lettuce, iceberg	12 oz. shredded		OZ-wt	12	0.035	\$ 0.42
Scallions, large	3 oz. chopped green part only		EA	2	0.200	\$ 0.40
Dressing, Thai peanut	2 cups		OZ-fl	16	0.122	\$ 1.95
					-	\$ -
					-	\$ -
					-	\$ -
TOOLS/EQUIP.: Ounce scale, measuring cup and large mixing bowl. STATION: Prep cook YIELD: About 16 5-oz. portions SHELF LIFE: 1 day			Total \$ 6.12 RU OZ-wt # of RU 80 RU Cost \$ 0.08			

Spicy Asian Slaw: Chef's note: Once the dressing is added, the slaw has a relatively short shelf life; you may want to blend all the other ingredients separately and then add dressing in smaller batches, as needed, to retain crispness.

Step 2 The Prep Stage — Citrus Soy Skirt Steak (cont'd)

Sacramento Food and Beverage - Recipe Card Roasted Cashew Butter			Batch		Recipe Cost			
INGREDIENTS	MEASURE	PROCEDURE	RU	# of RU	RU Cost	Cost		
Butter, salted	1½ oz.	1. Place 1½ oz. butter in a preheated sauté pan. Using a wire whisk, keep the melted butter moving until it foams and begins to brown. Quickly add the chopped nuts and toss, continuing to cook over medium heat.	OZ-wt	1.5	0.142	\$	0.21	
Cashews, unsalted pieces	6 oz. course-chopped		OZ-wt	6	0.439	\$	2.63	
					-	\$	-	
Butter, salted	18 oz. softened	2. As the cashews brown, remove the pan from the heat and blend in the brown sugar, mixing until well dissolved.	OZ-wt	18	0.142	\$	2.56	
Sugar, brown	3 oz.		OZ-wt	3	0.076	\$	0.23	
		3. Cool to about 125°, then blend with the softened butter using a mixing bowl and rubber spatula.			-	\$	-	
					-	\$	-	
					-	\$	-	
		4. Refrigerate for service.			-	\$	-	
					-	\$	-	
					-	\$	-	
TOOLS/EQUIP.: Sauté pan, mixing bowl, rubber spatula, French knife.					Total		\$ 5.64	
STATION: Line cook					RU	OZ-wt		
YIELD: About 28 1-oz. portions					# of RU	28		
SHELF LIFE: 3 days					RU Cost	\$ 0.20		

Roasted Cashew Butter: Chef's note: Other subrecipes used but not shown include pico de gallo.

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Step 3 Calculate Menu Item Cost

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

Menu Item: Grilled Mahi Tacos				
Item Description: Guatemalan-style black beans, avocado, pico de gallo, feta and crema.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
EA	2	Tortilla, flour, 6-inch	0.07	0.14
OZ-wt	6	Marinated mahi mahi	0.16	0.99
OZ-wt	0.5	Cabbage, shredded	0.07	0.04
EA	0.25	Avocado, Haas	1.19	0.30
OZ-wt	1.5	Cheese, feta, crumbles	0.19	0.29
OZ-wt	2.25	Pico de gallo	0.03	0.07
EA	0.25	Limes	0.11	0.03
OZ-fl	5	Guatemalan black beans	0.04	0.20
OZ-wt	0.1	Cilantro	0.29	0.03
OZ-fl	1	Avocado cream	0.20	0.20
			0.00	0.00
			0.00	0.00
			0.00	0.00
	1	Plate cost	0.35	0.35
			Total Cost	2.63
			Menu Price	9.00
			Gross Profit	6.37
			Food Cost %	29.22%

Menu Item: Citrus Soy Skirt Steak				
Item Description: Marinated for 12 hours and served with spicy Asian slaw, grilled scallions and baked sweet potato with roasted cashew butter.				
Recipe Unit	Quantity	Ingredient	Unit Cost	Extension
EA	1	Marinated skirt steak	1.35	1.35
EA	1	Potato, sweet	0.44	0.44
OZ-wt	1	Roasted cashew butter	0.20	0.20
OZ-wt	5	Spicy Asian slaw	0.08	0.38
EA	1	Scallions, large	0.20	0.20
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
	1	Plate cost	0.35	0.35
			Total Cost	2.92
			Menu Price	16.00
			Gross Profit	13.08
			Food Cost %	18.27%