



PRODUCT EXAMPLE

SPICE BLEND

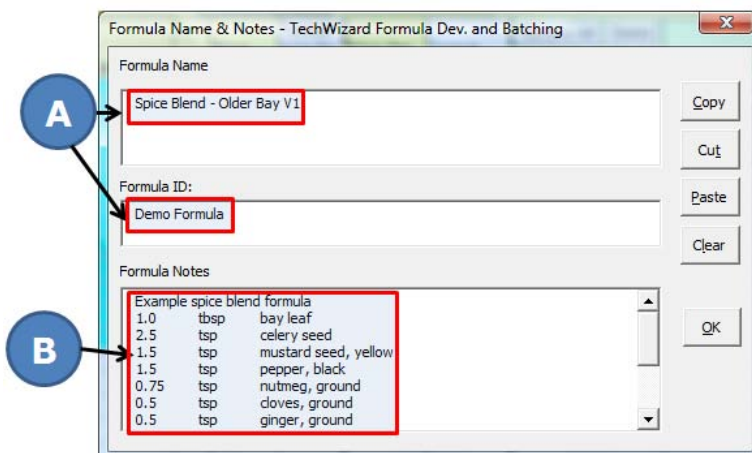
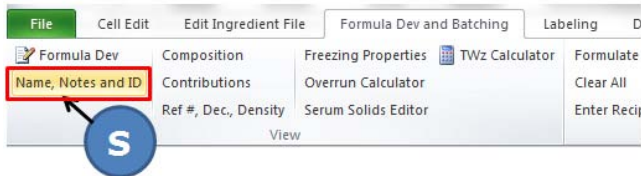
TechWizard™

Chef Bob works for an ingredient company. Chef Bob has created a seafood seasoning blend. All the recipe amounts are in teaspoon and tablespoon quantities. He needs to do the following:

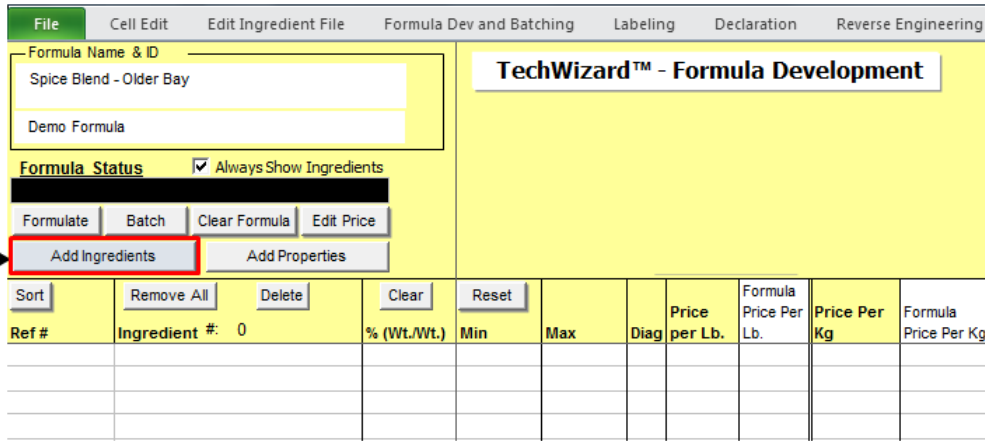
- Enter this version of the spice blend recipe in TechWizard™ and save the formula.
- Determine raw ingredient costs and determine how hot (spicy) the blend is.
- Reformulate the recipe to be less spicy.
- Create a bar chart comparing his original recipe to a reformulated recipe.
- Create a nutrition facts panel and ingredient list.
- Create a specification sheet.

Create Recipe

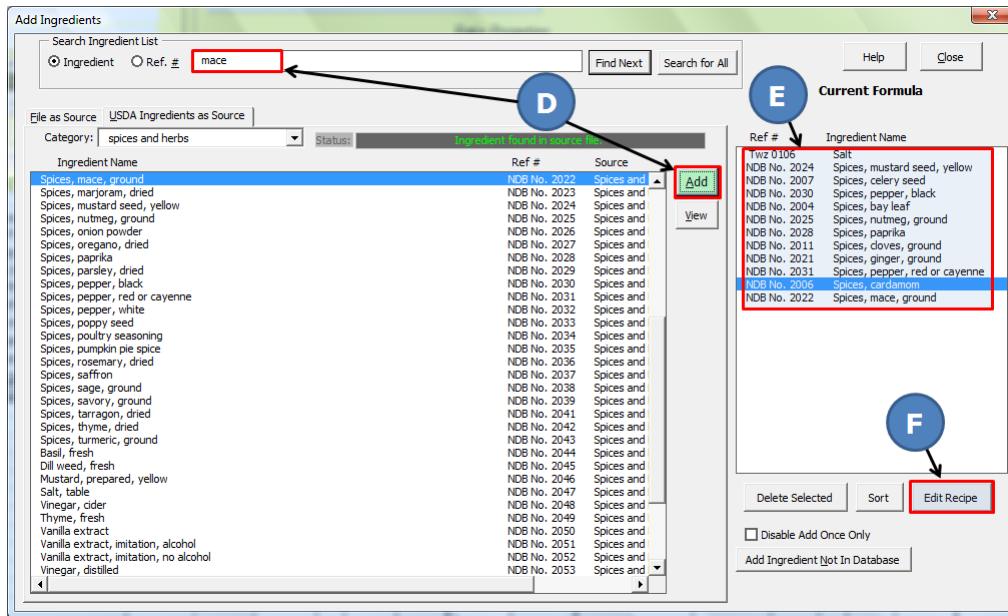
To start, Chef Bob clicks the **Name, Notes and ID** option (**S**). In the window that appears, he enters his formula name including a version number and a formula id (**A**). In the formula notes section, he is entering information about the recipe (**B**). This information will be saved with his formula.



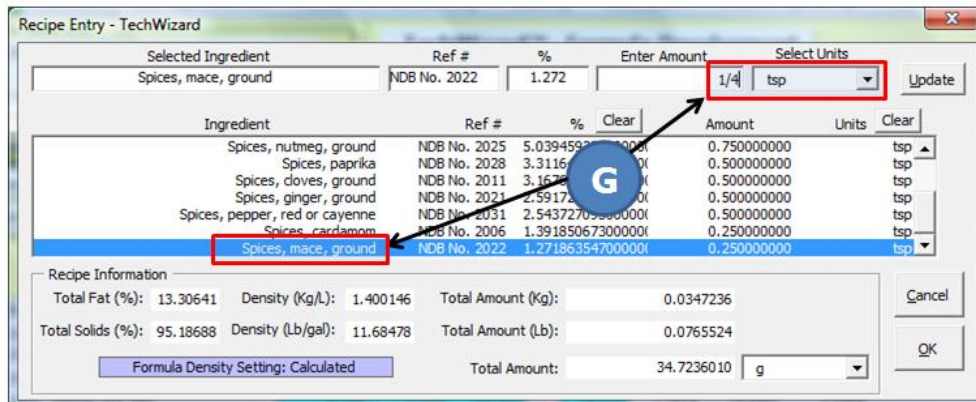
Chef Bob is ready to start building his recipe. He clicks the **Add Ingredient** button (C).



The Add Ingredients window appears. Chef Bob builds the formula using ingredient information obtained from the USDA Food Composition Database which is available in TechWizard™. He

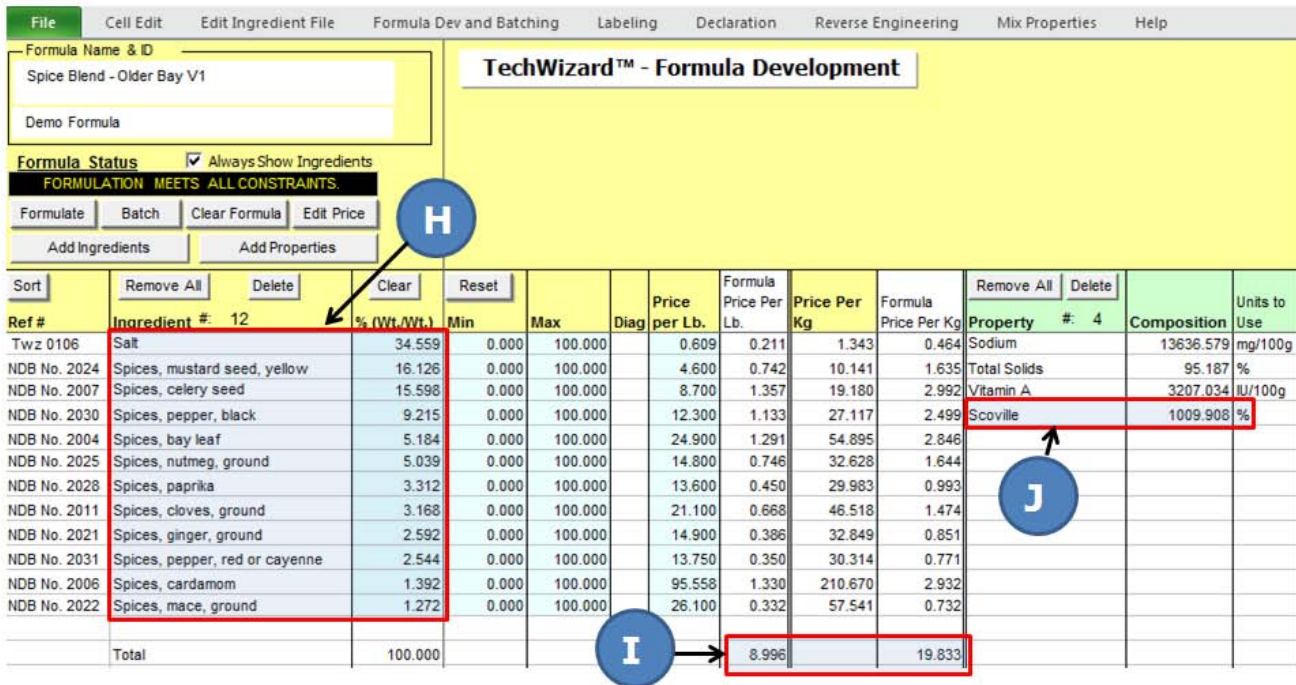


searches for each ingredient (D) and clicks the **Add** button to add the selected ingredient to the current formula on the right portion of the screen (E). Next, Chef Bob presses the **Edit Recipe** button (F) so he can enter a recipe amount for each ingredient.



The Recipe Entry window appears. Chef Bob selects each ingredient and enters the recipe amount (G). TechWizard™ converts the amounts for each ingredient into a recipe expressed in percent weight.

The following shows the TechWizard™ screen after he finishes entering the recipe amounts. His list of ingredients and corresponding percentages (**H**) are shown on the left side of the screen. The formula cost per pound and per kilogram is displayed (**I**). Chef Bob needs to know the Scoville unit content (heat, spiciness) of his recipe. TechWizard™ automatically calculates the value (**J**). Chef Bob saves this version of his formula by clicking **Save Formula** in the **File** menu (not shown).



TechWizard™ - Formula Development

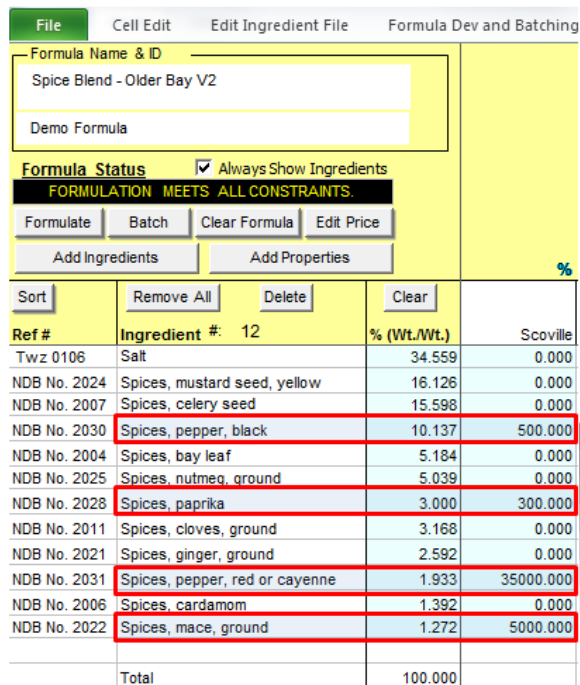
Formula Name & ID: Spice Blend - Older Bay V1
Demo Formula

Formula Status: Always Show Ingredients
FORMULATION MEETS ALL CONSTRAINTS.

Buttons: Formulate, Batch, Clear Formula, Edit Price, Add Ingredients, Add Properties

Ref #	Ingredient #	% (Wt./Wt.)	Min	Max	Diag	Price per Lb.	Formula Price Per Lb.	Price Per Kg	Formula Price Per Kg	Property #	Composition	Units to Use
Twz 0106	Salt	34.559	0.000	100.000		0.609	0.211	1.343	0.464	Sodium	13636.579	mg/100g
NDB No. 2024	Spices, mustard seed, yellow	16.126	0.000	100.000		4.600	0.742	10.141	1.635	Total Solids	95.187	%
NDB No. 2007	Spices, celery seed	15.598	0.000	100.000		8.700	1.357	19.180	2.992	Vitamin A	3207.034	IU/100g
NDB No. 2030	Spices, pepper, black	9.215	0.000	100.000		12.300	1.133	27.117	2.499	Scoville	1009.908	%
NDB No. 2004	Spices, bay leaf	5.184	0.000	100.000		24.900	1.291	54.895	2.846			
NDB No. 2025	Spices, nutmeg, ground	5.039	0.000	100.000		14.800	0.746	32.628	1.644			
NDB No. 2028	Spices, paprika	3.312	0.000	100.000		13.600	0.450	29.983	0.993			
NDB No. 2011	Spices, cloves, ground	3.168	0.000	100.000		21.100	0.668	46.518	1.474			
NDB No. 2021	Spices, ginger, ground	2.592	0.000	100.000		14.900	0.386	32.849	0.851			
NDB No. 2031	Spices, pepper, red or cayenne	2.544	0.000	100.000		13.750	0.350	30.314	0.771			
NDB No. 2006	Spices, cardamom	1.392	0.000	100.000		95.558	1.330	210.670	2.932			
NDB No. 2022	Spices, mace, ground	1.272	0.000	100.000		26.100	0.332	57.541	0.732			
Total		100.000						8.996	19.833			

Reformulate



Formula Name & ID: Spice Blend - Older Bay V2
Demo Formula

Formula Status: Always Show Ingredients
FORMULATION MEETS ALL CONSTRAINTS.

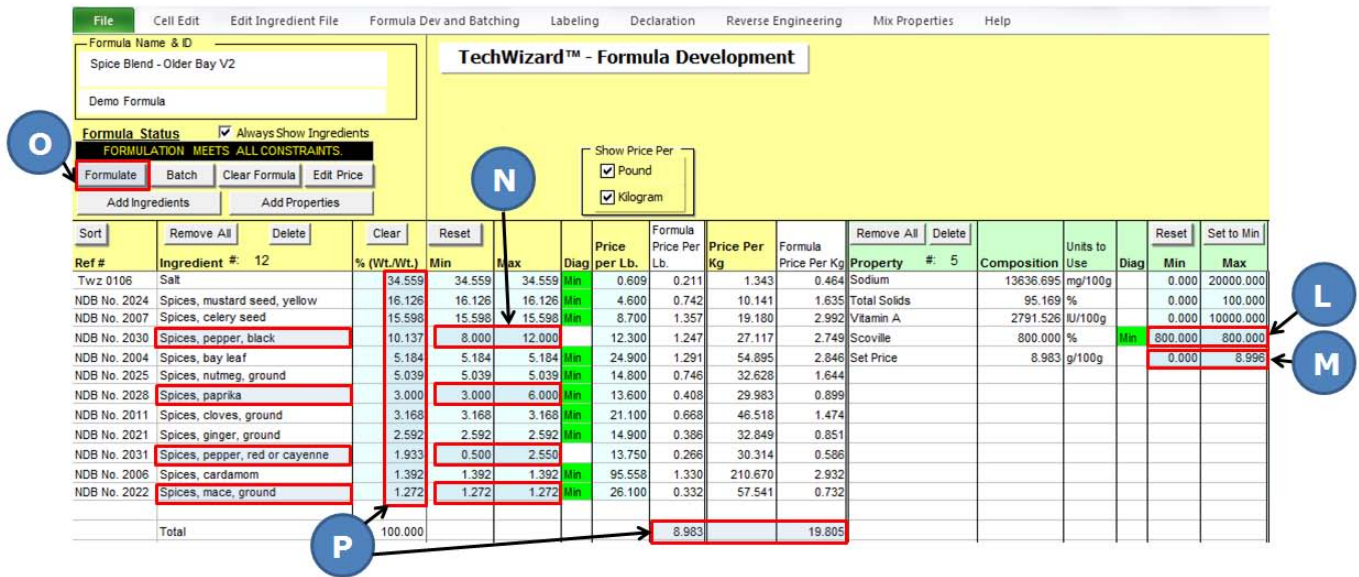
Buttons: Formulate, Batch, Clear Formula, Edit Price, Add Ingredients, Add Properties

Ref #	Ingredient #	% (Wt./Wt.)	Scoville
Twz 0106	Salt	34.559	0.000
NDB No. 2024	Spices, mustard seed, yellow	16.126	0.000
NDB No. 2007	Spices, celery seed	15.598	0.000
NDB No. 2030	Spices, pepper, black	10.137	500.000
NDB No. 2004	Spices, bay leaf	5.184	0.000
NDB No. 2025	Spices, nutmeg, ground	5.039	0.000
NDB No. 2028	Spices, paprika	3.000	300.000
NDB No. 2011	Spices, cloves, ground	3.168	0.000
NDB No. 2021	Spices, ginger, ground	2.592	0.000
NDB No. 2031	Spices, pepper, red or cayenne	1.933	35000.000
NDB No. 2006	Spices, cardamom	1.392	0.000
NDB No. 2022	Spices, mace, ground	1.272	5000.000
Total		100.000	

Chef Bob has done some taste tests and feels he needs to reduce the level of heat in the blend by roughly 20%. His goal is to reduce the level of heat (Scoville value) in the spice blend without sacrificing flavor or increasing his raw ingredient costs. He will let TechWizard™ do the reformulation.

Before deciding on how best to reformulate the spice blend, Chef Bob reviews the Scoville data for each ingredient in the formula (**K**). His main sources of heat are cayenne pepper and mace.

Chef Bob tells TechWizard™ that he would like the Scoville value for the formula to be 800 (L) instead of the original value (1009.908) and the price to be no greater than the original recipe which was \$ 8.996 per pound (M). He sets desired ranges for his ingredients, especially the ingredients contributing heat (N). These ranges were based on reducing the Scoville value (reduce perceived heat) without sacrificing flavor. Chef Bob presses the **Formulate** button (O). TechWizard™ determines the best combination of ingredients to meet his goals while minimizing cost. The percent of each ingredient in the new formulation is displayed along with the new formula price (P). TechWizard™ successfully created a recipe that reduced the Scoville value without increasing the cost of the formula.



TechWizard™ - Formula Development

Formula Name & ID: Spice Blend - Older Bay V2
Demo Formula

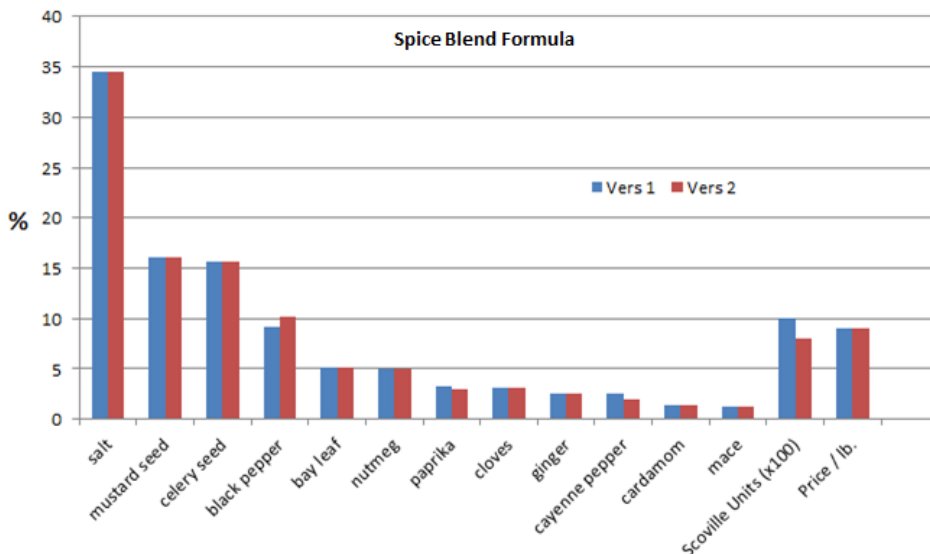
Formula Status: Always Show Ingredients
FORMULATION MEETS ALL CONSTRAINTS.

Buttons: Formulate (O), Batch, Clear Formula, Edit Price, Add Ingredients, Add Properties

Show Price Per: Pound, Klogram

Ref #	Ingredient #	% (WL/WL)	Min	Max	Diag	Price per Lb.	Formula Price Per Lb.	Price Per Kg	Formula Price Per Kg	Property #	Composition	Units to Use	Diag	Min	Max
Twz 0106	Salt	34.559	34.559	34.559	Min	0.609	0.211	1.343	0.464	Sodium	13636.695	mg/100g		0.000	20000.000
NDB No. 2024	Spices, mustard seed, yellow	16.126	16.126	16.126	Min	4.600	0.742	10.141	1.635	Total Solids	95.169	%		0.000	100.000
NDB No. 2007	Spices, celery seed	15.598	15.598	15.598	Min	8.700	1.357	19.180	2.992	Vitamin A	2791.526	IU/100g		0.000	10000.000
NDB No. 2030	Spices, pepper, black	10.137	8.000	12.000	Min	12.300	1.247	27.117	2.749	Scoville	800.000	%	Min	800.000	800.000
NDB No. 2004	Spices, bay leaf	5.184	5.184	5.184	Min	24.900	1.291	54.895	2.848	Set Price	8.983	g/100g		0.000	8.996
NDB No. 2025	Spices, nutmeg, ground	5.039	5.039	5.039	Min	14.800	0.746	32.628	1.644						
NDB No. 2028	Spices, paprika	3.000	3.000	6.000	Min	13.600	0.408	29.983	0.899						
NDB No. 2011	Spices, cloves, ground	3.168	3.168	3.168	Min	21.100	0.868	46.518	1.474						
NDB No. 2021	Spices, ginger, ground	2.592	2.592	2.592	Min	14.900	0.388	32.849	0.851						
NDB No. 2031	Spices, pepper, red or cayenne	1.933	0.500	2.550	Min	13.750	0.266	30.314	0.586						
NDB No. 2006	Spices, cardamom	1.392	1.392	1.392	Min	95.558	1.330	210.670	2.932						
NDB No. 2022	Spices, mace, ground	1.272	1.272	1.272	Min	26.100	0.332	57.541	0.732						
	Total	100.000						8.983	19.805						

Chef Bob has decided to export his information to a Microsoft® Excel spreadsheet and create a bar chart to compare his original formula with the new formula (shown below). The results show that the new recipe has more black pepper and less cayenne pepper which results in a lower Scoville value. The price is acceptable.



Create Reports

Chef Bob needs to produce a nutrition label based on a ¼ teaspoon serving size. He uses the labeling features in TechWizard™ to create a linear nutrition facts panel and ingredient list.

Nutrition Facts Serving Size 1/4 tsp (1g), Amount Per Serving: **Calories** 0, Fat Cal. 0, **Total Fat** 0g (0% DV), Sat Fat 0g (0% DV), *Trans* Fat 0g, **Cholest** 0mg (0% DV), **Sodium** 80mg (3% DV), **Total Carb** 0g (0% DV), Fiber 0g (0% DV), Sugars 0g, **Protein** 0g, Vitamin A (0% DV), Vitamin C (0% DV), Calcium (0% DV), Iron (0% DV). Percent Daily Values are based on a 2,000 calorie diet.

INGREDIENTS: SALT, MUSTARD SEED, CELERY SEED, BLACK PEPPER, BAY LEAF, NUTMEG, CLOVES, PAPRIKA, GINGER, CAYENNE PEPPER, CARDAMOM, MACE.

Chef Bob would also like to create a specification sheet for his spice blend. He has decided to display the price per lb, nutrient composition, allergen content, organic status, kosher status, country of origin, and ingredient list. He creates this report in TechWizard™ and instructs TechWizard™ to include his company logo at the top of the spec sheet.

ACME INGREDIENT COMPANY		503 E Ingredient Street
PROVIDING QUALITY AT A LOW PRICE		Anywhere, USA 00121
		tel 555-555-5555
Ingredient:	Spice Blend - Older Bay V2	
Ingredient ID:	Demo Formula	
Serving Size:	100 g	Date: 20-Jun-2012
	Amount Per Serving	
Price	8.98	price/lb
Total Solids	95.169	%
Calories	249.722	cal
Fat Calories	118.716	cal
Total Fat	13.191	g
Saturated Fat	2.581	g
Trans Fatty Acids (TFA)	0.000	g
Cholesterol	0.000	mg
Sodium	13636.695	mg
Total Carbohydrates	33.160	g
Dietary Fiber	13.011	g
Sugars	3.373	g
Protein	9.975	g
Vitamin A	2791.526	IU
Vitamin C (Ascorbic Acid)	14.752	mg
Calcium	496.621	mg
Iron	15.724	mg
Density	1.401	Kg/L
Contains Milk	No	
Contains Egg	No	
Contains Fish	No	
Contains Shellfish	No	
Contains Tree Nuts	No	
Contains Wheat	No	
Contains Peanuts	No	
Contains Soy	No	
Organic	No	
Kosher	No	
Country of Origin:	USA	
Ingredients: SALT, MUSTARD SEED, CELERY SEED, BLACK PEPPER, BAY LEAF, NUTMEG, CLOVES, PAPRIKA, GINGER, CAYENNE PEPPER, CARDAMOM, MACE		

Versatility

TechWizard™ is a very versatile tool. Chef Bob was able to do all these tasks in just a few minutes. He could do many more. For example, he could prepare a test kitchen batch sheet or determine the raw ingredient costs associated with making a production batch. He could make this new formula an ingredient and use it in another formula. He could print a variety of reports or he could export formula information to another software program.

Contact us today to find out what TechWizard™ can do for you.