TechWizard™

PRODUCT EXAMPLE
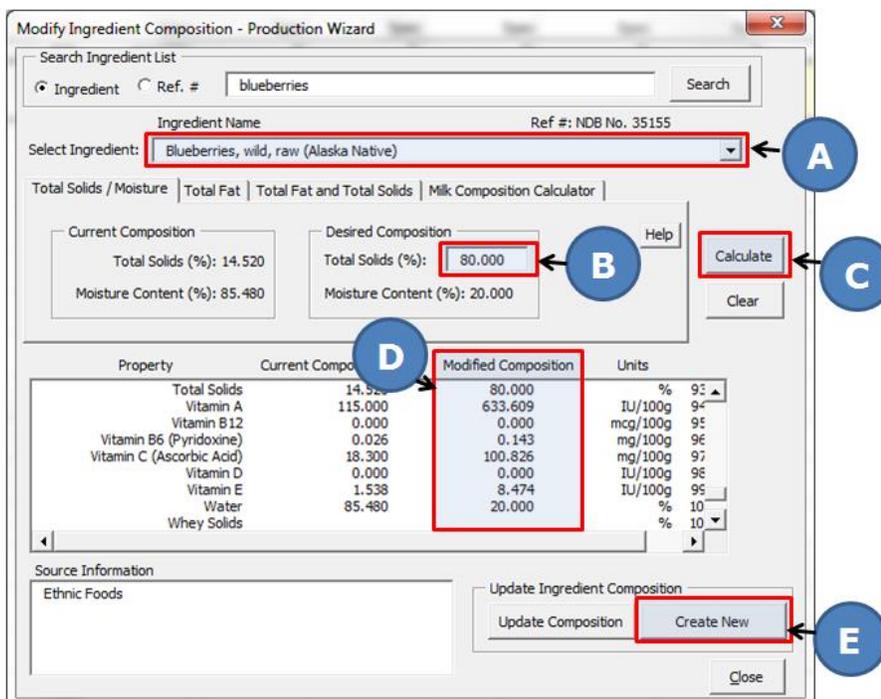# BLUEBERRY
PROTEIN DRINK

Kelly works for a company that makes fruit concentrates. She is asked to formulate a whey protein drink using a blueberry concentrate. Kelly would like to do the following:

- Create a blueberry concentrate ingredient with 20% moisture based on the original blueberry composition.
- Create a blueberry nutrient drink with 1% protein and a sweetness value of 9%.
- Determine formula cost.
- Create a nutrition facts panel and ingredient list.
- Save the formula to the formula file.
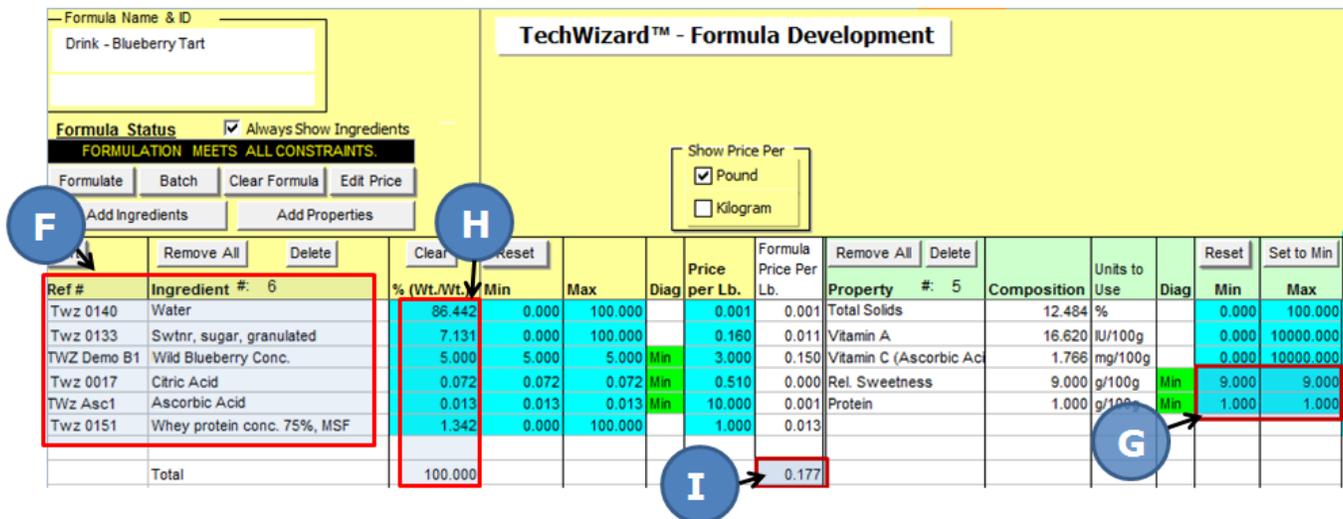
Create Blueberry Concentrate Ingredient

First she needs to determine the composition and nutrition information for the concentrate. Kelly uses TechWizard™ to reduce the moisture content of the blueberries to 20 % moisture which becomes the blueberry concentrate ingredient.

In the window shown on the left, Kelly selects the ingredient to concentrate (**A**), enters the desired total solids value (**B**), and clicks the **Calculate** button (**C**). The modified composition is displayed (**D**) which allows Kelly to review the data for the concentrate. She clicks the **Create New** button (**E**) and her new concentrated blueberry ingredient is added to the ingredient file and ready to be used to build formulas.

Create Recipe

To create the protein drink, Kelly enters the ingredients (**F**) and the properties specifying that she wants a protein content of 1% and a sweetness of 9% (**G**). TechWizard™ automatically creates the desired recipe (**H**) for the product. In other words, TechWizard™ determines the blend of ingredients necessary to meet Kelly's needs. Kelly reviews the formula and cost of the formula (**I** results are available per Kg or per Lb.).

TechWizard™ - Formula Development

Formula Name & ID: Drink - Blueberry Tart

Formula Status: FORMULATION MEETS ALL CONSTRAINTS.

Ref #	Ingredient #: 6	% (Wt./Wt.)	Min	Max	Diag	Price per Lb.	Formula Price Per Lb.	Property #: 5	Composition	Units to Use	Diag	Min	Max
Twz 0140	Water	86.442	0.000	100.000		0.001	0.001	Total Solids	12.484	%		0.000	100.000
Twz 0133	Swtnr, sugar, granulated	7.131	0.000	100.000		0.160	0.011	Vitamin A	16.620	IU/100g		0.000	10000.000
TWZ Demo B1	Wild Blueberry Conc.	5.000	5.000	5.000	Min	3.000	0.150	Vitamin C (Ascorbic Aci	1.766	mg/100g		0.000	10000.000
Twz 0017	Citric Acid	0.072	0.072	0.072	Min	0.510	0.000	Rel. Sweetness	9.000	g/100g	Min	9.000	9.000
TWz Asc1	Ascorbic Acid	0.013	0.013	0.013	Min	10.000	0.001	Protein	1.000	g/100g	Min	1.000	1.000
Twz 0151	Whey protein conc. 75%, MSF	1.342	0.000	100.000		1.000	0.013						
	Total	100.000					0.177						

Show Price Per: ☑ Pound ☐ Kilogram

If she is not satisfied, she can include other candidate ingredients and TechWizard™ will determine if a less expensive formula is possible.

Nutrition Facts

1 serving per container
Serving size 8 fl oz (240mL)

Amount per serving

Calories 120

	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 28g	10%
Dietary Fiber 3g	11%
Total Sugars 18g	
Includes 18g Added Sugars	36%
Protein 3g	
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0.4mg	2%
Potassium 0mg	0%
Vitamin C 4mg	4%
Zinc 0.5mg	4%
Manganese 2mg	90%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS: WATER, SUGAR, BLUEBERRY EXTRACT, WHEY PROTEIN, CITRIC ACID, ASCORBIC ACID.

Create Report

Kelly creates a nutrition facts panel and ingredient list for this version of her prototype formula. She saves this version of her formula to a TechWizard™ formula file. She can retrieve it later and make further changes as needed.

Versatility

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