

WEBINAR



Converting Your Labels from 1990 to 2016 Regulations

Presented by ESHA Research

Wednesday, April 18, 2018

11:00 AM PDT | 1:00 PM CDT | 2:00 PM EDT



ESHA Research

ESHA Research was established in 1981 as the first comprehensive nutrition analysis software solution. Today, ESHA's suite of nutritional software products, services, and databases are recognized as the industry's top choice for food and supplement formulation, recipe development, labeling, nutritional analysis, and regulatory compliance.

ESHA Services and Software Solutions

- Genesis R&D[®] Food Formulation
- Genesis R&D[®] Supplement Formulation
- Food Processor[®] Nutrition & Diet Analysis
- Consulting Services



Genesis R&D Food

Genesis R&D was released in 1991 and is designed to help users manage processes and industry challenges, and meet federal requirements.

- Product Development
- Formulation Analysis
- Menu Analysis
- Reporting
- Regulatory Compliance



Upcoming Webinars



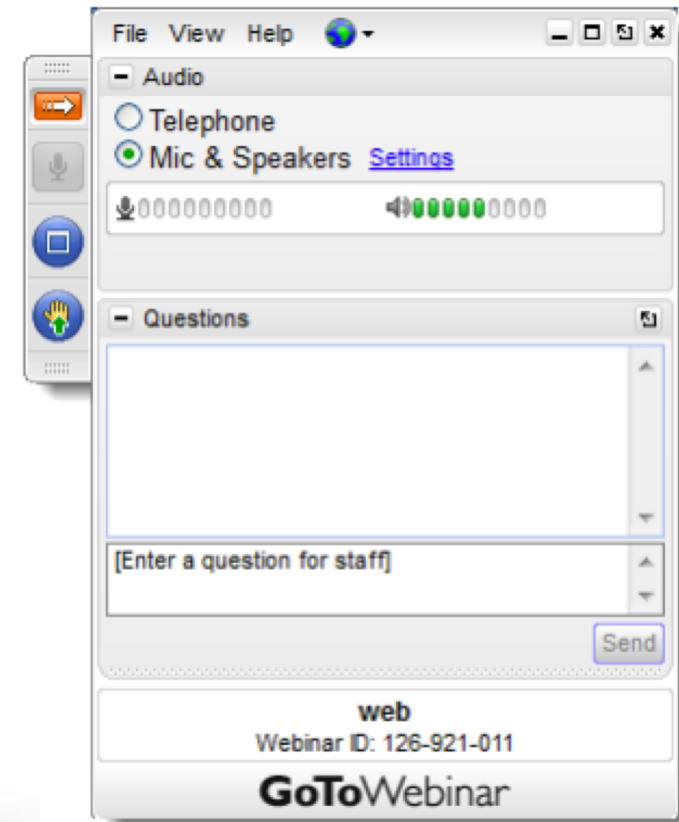
Customizing Your Recipe Analysis & Nutrition Reports | May 15, 2018

Genesis R&D offers a wide variety of options you can use to customize the reports generated by the program. You can add your company's letterhead (or personalized banner) and other images to the nutrition reports. You can also change colors and fonts to retain consistency with existing visual identity. During this webinar, we will show you how to customize your reports for printing, data sharing, marketing and other purposes.

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Please Note!

- ✓ The webinar is being recorded
- ✓ All webinars available on our website
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Agenda

- Regulations overview
 - Timeline
 - Formatting
 - Nutrient changes and calculations
 - Dietary fiber definition
 - Added sugars
 - RACC Changes
 - Dual Column labeling rule
- Best practices for making the transition



Timeline for Compliance*

The compliance date for the updated Nutrition Facts labels will be **January 1, 2020***, for companies with more than 10 million dollars in annual food sales

OR

January 1, 2021*, for companies with less than 10 million dollars in annual food sales.

***September 29, 2017: FDA proposed compliance dates**

Nutrition Facts	
2 servings per container	
Serving size	1 cup (140g)
<hr/>	
Amount per serving	160
Calories	
<hr/>	
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 3g	15%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
<hr/>	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%
<hr/>	
<small>*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.</small>	



1990 NLEA & 2016 NLEA

Nutrition Facts			
Serving Size 2/3 cup (55g)			
Servings Per Container 8			
Amount Per Serving			
Calories 230	Calories from Fat 70		
			% Daily Value*
Total Fat 8g			12%
Saturated Fat 1g			5%
Trans Fat 0g			
Cholesterol 0mg			0%
Sodium 160mg			7%
Total Carbohydrate 37g			12%
Dietary Fiber 4g			16%
Sugars 12g			
Protein 3g			
Vitamin A 6%	•	Vitamin C 10%	
Calcium 25%	•	Iron 45%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
*The % Daily Value 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.	

Note: Both formats are available in Genesis R&D as we transition through effective and compliance date timelines. Format options include the appropriate regulations for both.

Font Style & Size



Must be *largest* text (except Calories value) and at least 16-point **bold** or **extra-bold**.

At least 10 point.

At least 6-point **bold** or **extra-bold**.

Must be the *same size or smaller* than "Nutrition Facts" and at least 16-point **bold** or **extra-bold**.

At least 8 point. Nutrients that are not indented (Total Fat, Cholesterol, etc.) should be flush left and **bold** or **extra-bold**.

At least 8 point.

At least 10-point **bold** or **extra-bold**; *amount* must be right-justified.

At least 22-point **bold** or **extra-bold**.

At least 6 point **bold** or **extra-bold**.

At least 8-point **bold** or **extra-bold**.

At least 8-point.

At least 6 point.

Nutrition Facts	
2 servings per container	
Serving size	1 cup (140g)
Amount per serving	
Calories	160
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 3g	15%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Nutrient Listing Changes

Current **MANDATORY**, **VOLUNTARY**, and **NOT LISTED** nutrients
(shown with previous requirements and, if applicable **new DV**)

MANDATORY

Added Sugars

(was not listed)

New DV: 50 g

Vitamin D

(was voluntary)

Potassium

(was voluntary)

VOLUNTARY

Vitamin C

(was mandatory)

Choline

(was not listed)

Vitamin A

(was mandatory)

Fluoride

(was not listed)

New DV: 550 mg

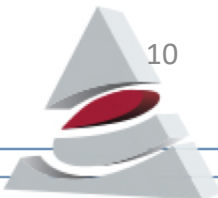
NOT LISTED

Other Carbohydrate

(was voluntary)

Calories from Fat

(was mandatory)





Nutrient DV Changes

INCREASES

Potassium
4700 mg
up from 3500 mg

Calcium
1300 mg
up from 1000 mg

Vitamin C
90 mg
up from 60 mg

Dietary Fiber
28 gm
up from 25 gm

Total Fat
78 gm
up from 65 gm

Phosphorus
1250 mg
up from 1000 mg

Vitamin K
120 mcg
up from 80 mcg

Magnesium
420 mg
up from 400 mg

Manganese
2.3 mg
up from 2 mg



Daily Value Changes - Potassium

1990 Label

DV = 3500 mg

1750 mg = 50% DV

Nutrition Facts	
Serving Size 1 slice (59g) Servings Per Container 8	
Amount Per Serving	
Calories 180	Calories from Fat 60
<hr/>	
	% Daily Value*
Total Fat 6g	9%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 190mg	8%
Potassium 1750mg	50%
Total Carbohydrate 30g	10%
Dietary Fiber 1g	4%
Sugars 15g	
Protein 3g	
<hr/>	
Vitamin A 4%	• Vitamin C 0%
Calcium 6%	• Iron 8%
<hr/>	
<small>*Percent Daily Values are based on a 2,000 calorie diet.</small>	

2016 Label

DV = 4700 mg

1750 mg = 35% DV

Nutrition Facts	
8 servings per container Serving size 1 slice (59g)	
Amount per serving	
Calories	180
<hr/>	
	% Daily Value*
Total Fat 6g	8%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 190mg	8%
Total Carbohydrate 30g	11%
Dietary Fiber 1g	4%
Total Sugars 15g	
Includes 14g Added Sugars	28%
Protein 3g	
<hr/>	
Vitamin D 0mcg	0%
Calcium 55mg	4%
Iron 2mg	10%
Potassium 1750mg	35%
<hr/>	
<small>*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet.</small>	



Nutrient DV Changes

DECREASES

PANTOTHENIC
ACID

5 mg
down from
10 mg

TOTAL
CARBS
275 gm
down from
300 gm

VITAMIN
B12
2.4 mcg
down from
6 mcg

NIACIN
16 mg NE

down from
20 mg

SELENIUM
55 mcg
down from
70 mcg

THIAMIN
1.2 mg
down from
1.5 mg

CHROMIUM
35 mcg
down from
120 mcg

CHLORIDE
2300 mg

down from
3400 mg

SODIUM
2300 mg
down from
2400 mg

VITAMIN B6
1.7 mg
down from
2 mg

ZINC
11 mg
down from
15 mg

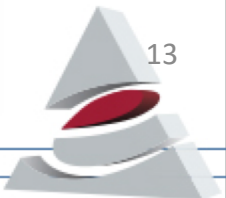
BIOTIN
30 mcg

down from
300 mcg

COPPER
0.9 mg
down from
2 mg

RIBOFLAVIN
1.3 mg
down from
1.7 mg

MOLYBDENUM
45 mcg
down from
75 mcg





Daily Value Changes - Carbohydrate

1990 Label

DV = 300 g

30 g = 10% DV

Nutrition Facts	
Serving Size 1 slice (59g)	
Servings Per Container 8	
Amount Per Serving	
Calories 180	Calories from Fat 60
<hr/>	
	% Daily Value*
Total Fat 6g	9%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 190mg	8%
Potassium 1750mg	50%
Total Carbohydrate 30g	10%
Dietary Fiber 1g	4%
Sugars 15g	
Protein 3g	
<hr/>	
Vitamin A 4%	• Vitamin C 0%
Calcium 6%	• Iron 8%
<hr/>	
*Percent Daily Values are based on a 2,000 calorie diet.	

2016 Label

DV = 275 g

30 g = 11% DV

Nutrition Facts	
8 servings per container	
Serving size	1 slice (59g)
Amount per serving	
Calories	180
<hr/>	
	% Daily Value*
Total Fat 6g	8%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 190mg	8%
Total Carbohydrate 30g	11%
Dietary Fiber 1g	4%
Total Sugars 15g	
Includes 14g Added Sugars	28%
Protein 3g	
<hr/>	
Vitamin D 0mcg	0%
Calcium 55mg	4%
Iron 2mg	10%
Potassium 1750mg	35%
<hr/>	
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet.	





Nutrient Unit Changes

Niacin (Voluntary Nutrient)

- Change from mg of Niacin to mg of Niacin Equivalents (NE)

Vitamin A (Voluntary nutrient - previously mandatory)

- Change from IU to mcg Retinol Activity Equivalents (RAE)

Vitamin E (Voluntary nutrient)

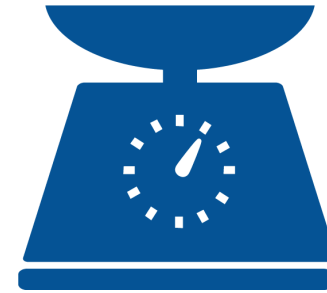
- Change from IU to mg a-tocopherol

Folate (Voluntary nutrient)

- Change from mcg to mcg Dietary Folate Equivalents (DFE)

Vitamin D (Mandatory nutrient - previously voluntary)

- Change from IU to mcg





Nutrient *Conversion* Calculations

Niacin

1990 (mcg)
Voluntary

2016
(mg of Niacin
Equivalents [NE])
Voluntary

CALCULATIONS

NIACIN

mg Niacin = mg NE
*(no calculation needed;
units are equivalent)*

AMINO ACID (tryptophan)

mg Tryptophan/60 mg = NE
(divide mg of tryptophan by 60)

Folate

1990 (mcg)
Voluntary



2016 (mcg DFE)
Voluntary

CALCULATIONS

NATURAL (food)

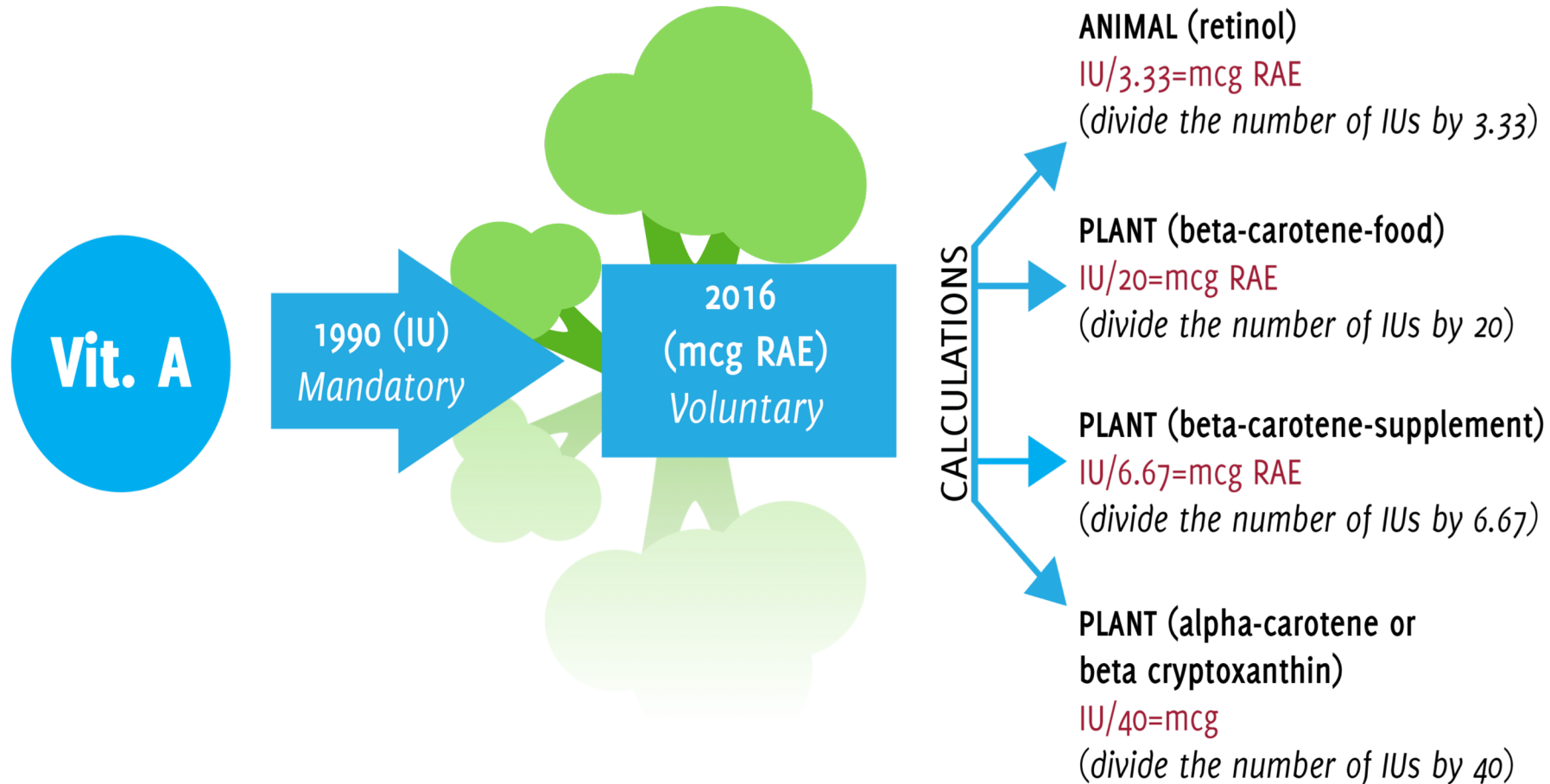
mcg Folate = mcg DFE
*(no calculation needed;
units are equivalent)*

SYNTHETIC (supplement)

mcg Folic Acid x 1.7 = mcg Folate
(multiply the mcg by 1.7)

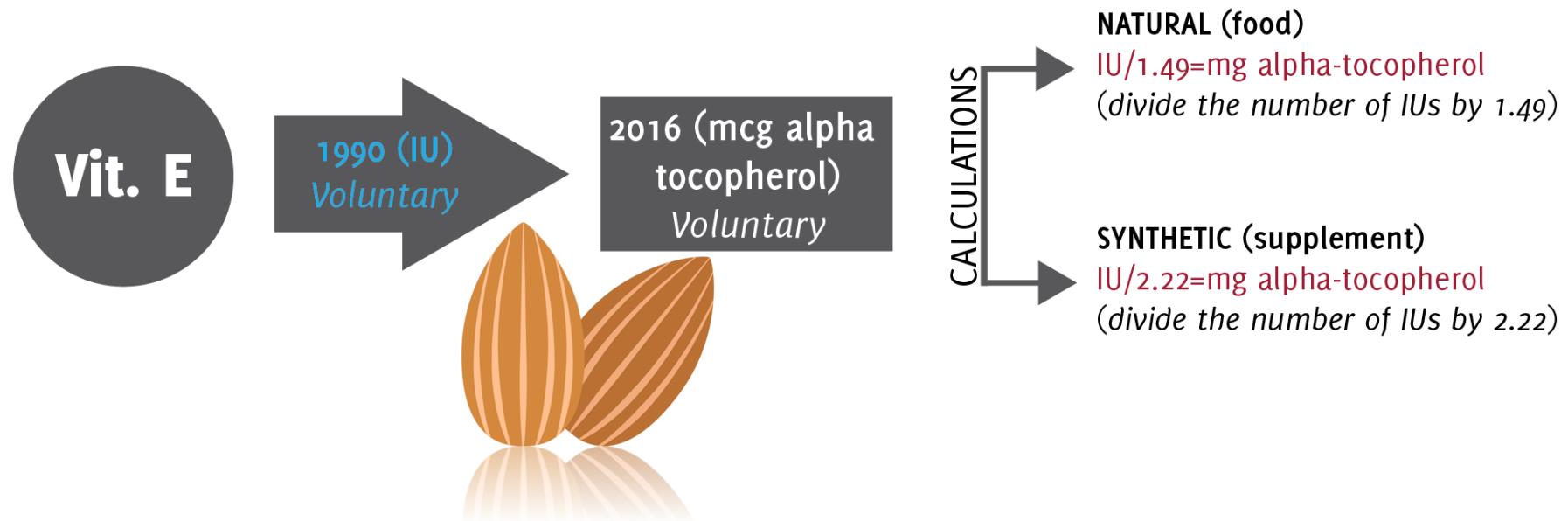
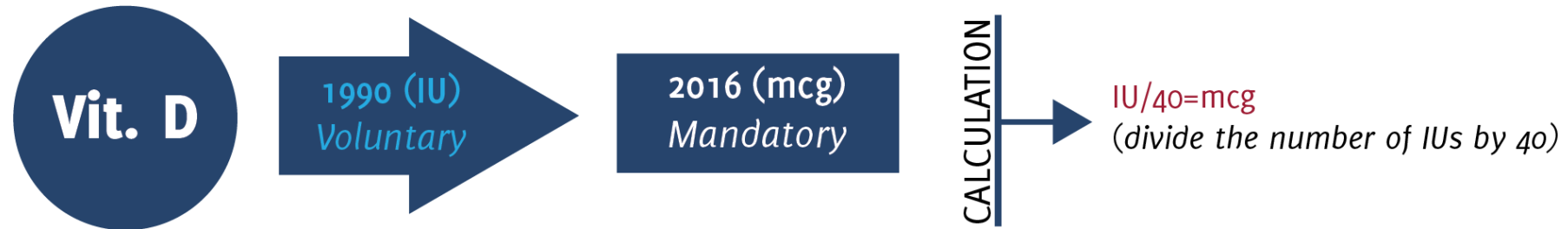


Nutrient *Conversion* Calculations





Nutrient *Conversion* Calculations





Nutrient Calculator

Assists in Calculating the Following Nutrients:

- Carbohydrates
- New Dietary Fiber Fields
- Vitamin A
- Vitamin B3
- Niacin Equivalents
- Tryptophan
- Vitamin D
- Vitamin E
- Folate/Folic Acid



DIETARY FIBER

noun | di·e·tary fi·ber | \ 'dī-ə-,ter-ē 'fī-bər\

: a statement of the number of grams of dietary fiber in one serving of a food

DV CHANGE
28g up from 25g



ON THE LABEL

Dietary fiber is indented and rounded to the nearest gram.

- If a serving contains less than 1 gram, declaration is not required.
- *But*, you may choose to use the statement “Contains less than 1 gram” (or “less than 1 gram”).
- If the serving contains less than 0.5 gram, the content may be expressed as zero.

NEW DEFINITION

New FDA Dietary Fiber

Definition:

- determined by FDA to have beneficial physiological effects on human health.
- non-digestible soluble and insoluble carbohydrates and lignan that are intrinsic and intact in plants.
- the FDA identifies specific isolated or synthetic non-digestible carbohydrates that meet the 2016 definition of dietary fiber. Additional are under review to be considered as dietary fiber.

dietary fibers

NATURAL AND WHOLE

Whole Grains
 Beans
 Berries
 Nuts & Seeds
 Barley
 Asparagus

NATURAL AND MECHANICALLY PROCESSED

Cereal bran
 Flaked cereals
 Flours

ADDED, NON-DIGESTIBLE

Beta-glucan soluble fiber
 Psyllium husk
 Cellulose
 Guar gum
 Pectin
 Locust bean gum
 Hydroxypropylmethylcellulose

NEW CALCULATION

Based on the new definition, a sample bar with oats, cellulose and inulin would have 10g of Total Dietary Fiber. The 5g of fiber that comes from inulin are not used in calculating Total Dietary Fiber, but ARE used in calculating Total Carbs.

Manufacturers are required to make and keep records verifying the declared amount of dietary fiber.

5g BENEFICIAL Soluble Fiber (oats)
+5g BENEFICIAL Insoluble Fiber (cellulose)
0g OTHER Soluble Fiber
+5g OTHER Insoluble Fiber (Inulin is not 'beneficial')

10g TOTAL DIETARY FIBER (only 'beneficial' fiber used to calculate total)

Nutrition Facts

1 serving per container
Serving size 1 cup (140g)

Amount per serving	% Daily Value*
Calories 160	
Total Fat 8g	10%
Saturated Fat 3g	15%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.



26 Non-Digestible Carbs Under Review

- Gum Acacia
- Alginate
- Apple Fiber
- Bamboo Fiber
- Carboxymethylcellulose
- Corn Hull Fiber
- Cottonseed Fiber
- Galactooligosaccharides
- Inulin/Oligofructose/Synthetic Short Chain Fructooligosaccharides
- Karaya Gum
- Oat Hull Fiber
- Pea Fiber
- Polydextrose
- Potato Fibers
- Pullulan
- Rice Bran Fiber
- High Amylose Corn/Maize Starch (Resistant Starch 2)
- Retrograded Corn Starch (Resistant Starch 3)
- Resistant Wheat and Maize Starch (Resistant Starch 4)
- Soluble Corn Fiber
- Soy Fiber
- Sugar Beet Fiber
- Sugar Cane Fiber
- Wheat Fiber
- Xanthan Gum
- Xylooligosaccharides



Last updated Page Last Updated: 01/06/2017

<https://www.fda.gov/food/ingredientpackaginglabeling/labelingnutrition/ucm528582.htm>



Dietary Fiber in Genesis

Ingredient: bar, granola, mix

* %DV based on US Label 2016 standards.
Nutrient values based on 100.000000 grams

Nutrients	Value
Starch (g)	
Total Dietary Fiber (g)	15.000000
Total Soluble Fiber (g)	10.000000
Total Insoluble Fiber (g)	5.000000
Dietary Fiber (2016) (g)	10.000000
Soluble Fiber (2016) (g)	5.000000
Insoluble Fiber (2016) (g)	5.000000
Other Dietary Fiber (2016) (g)	5.000000
Other Soluble Fiber (2016) (g)	5.000000
Other Insoluble Fiber (2016) (g)	0
Total Sugars (g)	34.270000
Added Sugar (g)	

Show All Nutrients Auto Calculations
Decimal Places: 6

Old 1990 Label Fields

New 2016 Label Fields

**Not seeing the new Fiber fields?
Change your Nutrients to View or
check "Show All Nutrients"**



Fill in Missing Data

Nutrition Facts	
Serving Size 2/3 Cup	
Servings Per Container About 3	
Amount Per Serving	
Calories 190	Calories from Fat 90
% Daily Value*	
Total Fat 10g	15%
Saturated Fat 6g	30%
Cholesterol 30mg	10%
Sodium 65mg	3%
Total Carbohydrate 25g	8%
Dietary Fiber 1g	4%
Sugars 22g	
Protein 3g	
Vitamin A 8%	• Vitamin C 2%
Calcium 10%	• Iron 4%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Nutrition Facts	
About 3 servings per container	
Serving size	2/3 Cup
Amount per serving	
Calories	190
% Daily Value*	
Total Fat 10g	13%
Saturated Fat 6g	30%
Cholesterol 30mg	10%
Sodium 65mg	3%
Total Carbohydrate 25g	9%
Dietary Fiber --g	--%
Total Sugars 22g	
Includes 15g Added Sugars	30%
Protein 3g	
Vitamin D 0mcg	0%
Calcium 96mg	8%
Iron 1mg	6%
Potassium 220mg	4%
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.	
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Missing Mandatory Nutrients are displayed here with a dashed line – NOT COMPLIANT

NOTE: If only 1 out of 9 of your ingredients contain the required dietary fiber information only that one ingredient's dietary fiber nutrients will appear on the label. Potentially showing inaccurate results on the Nutrition Facts Panel.

ADDED SUGARS

noun | add·ed su·gars | \ 'a-dəd 'shü-gərs \

: a statement of the number of grams of added sugars in one serving of a food

DEFINITION

Sugars that are either added during the processing of foods or packaged as such and includes sugars (free, mono- and disaccharides), sugars from syrups and sugars concentrated from fruit or vegetable juices that are in excess of what would be expected from the same volume of 100% fruit or vegetable juice of the same type.

added sugars

ALWAYS CONSIDERED ADDED

Corn Sweetener
Molasses
Sugar

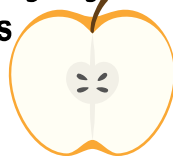


Honey
Syrup

NOT CONSIDERED ADDED

Naturally occurring sugars in:

Dairy products
Vegetables



Fruits
Grains

THESE REQUIRE SPECIAL CONSIDERATION*

Juice concentrates -

Example: concentrate added to any product, when sugar content would exceed sugar in same volume of same type of juice concentrate is added sugar.

Purees/Pastes, Sugars after fermenting, Corn syrup solids

MANDATORY NUTRIENT

DV: 50g. Not to exceed 10% of total calories.

ON THE LABEL

Added Sugars are indented and listed under Total Sugars.

Rounding Rules:

- Less than 1 g: declaration not required with insignificant footnote or you can show "less than 1 g" or "< 1 g" on the label.
- Less than .5 g: may be expressed as zero

Nutrition Facts

1 serving per container	
Serving size	1 cup (140g)
Amount per serving	
Calories	160
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 3g	15%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.



FDA Draft Nonbinding Recommendations



Nutrition Facts	
8 servings per container	
Serving size	1 cup (240ml)
Amount per serving	
Calories	110
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 5mg	0%
Total Carbohydrate 27g	9%
Dietary Fiber 0g	0%
Total Sugars 25g	
Includes 23g Added Sugars	54%†
Protein 0g	
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 45mg	1%

* 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.



Contains Nonbinding Recommendations Draft-Not for Implementation	
The Declaration of Added Sugars on Honey, Maple Syrup, and Certain Cranberry Products: Guidance for Industry	
Draft Guidance <i>This guidance is being distributed for comment purposes only.</i>	
<p>Although you can comment on any guidance at any time (see 21 CFR 10.115(g)(5)), to ensure that FDA considers your comment on this draft guidance before we begin work on the final version of the guidance, submit either electronic or written comments on the draft guidance within 60 days of publication in the Federal Register of the notice announcing the availability of the draft guidance. Submit electronic comments to https://www.regulations.gov. Submit written comments to the Docket Management Staff (2FF-A-302), Food and Drug Administration, 5630 Fishers Lane, rm. 3B61, Rockville, MD 20852. All comments should be identified with the docket number FDA-2018-D-0075 listed in the notice of availability that publishes in the Federal Register.</p> <p>For questions regarding this draft document contact the Center for Food Safety and Applied Nutrition (CFSAN) at 240-403-1450.</p>	
<p>U.S. Department of Health and Human Services Food and Drug Administration Center for Food Safety and Applied Nutrition February 2018</p>	

“Given the concerns outlined earlier regarding the added sugars declaration on **pure honey, pure maple syrup**, and certain **cranberry products** described here (dried cranberries and cranberry juice sweetened with added sugars that provide an amount of total sugars in a serving that does not exceed the level of total sugars in a serving of a comparable product with no added sugars), we intend to exercise enforcement discretion for such products to use a “†” symbol immediately following the added sugars percent Daily Value”

† Sugars added to improve the palatability of naturally tart cranberries. The 2015-2020 Dietary Guidelines for Americans state that there is room for limited amounts of Added Sugars in the diet, especially from nutrient dense food like naturally tart cranberries.

Nutrition Facts	
16 servings per container	
Serving size	1 Tbsp. (21g)
Amount per serving	
Calories	60
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 17g	6%
Dietary Fiber 0g	0%
Total Sugars 17g	
Includes 17g Added Sugars	34%†
Protein 0g	
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 0mg	0%

* 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.



† All these sugars are naturally occurring in honey.

Total vs. Added Sugar

Recipe: Fruit Cup plus 10 g apple j... x

Recipe Information x

Recipe

Nutrients

Measures

Brix Calculation

Cost

Groups

Compare To

Preparation Method

Nutrient Content Claims

Notes

HACCP

*%DV based on US Label 2016 standards.
Nutrient values based on 100.00 grams

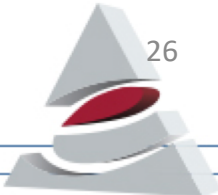
Nutrients	Value	% DV	Override
Insoluble Fiber (2016) (g)			
Other Dietary Fiber (2016) (g)	0		
Other Soluble Fiber (2016) (g)	0		
Other Insoluble Fiber (2016) (g)	0		
Total Sugars (g)	12.097924		
Added Sugar (g)	3.450000	6.900000	
Monosaccharides (g)	2.180640		
Galactose (g)	0.017994		
Glucose (g)	2.852802		
Fructose (g)	4.869844		
Disaccharides (g)	3.199287		
Lactose (g)	0		
Sucrose (g)	4.005314		
Maltose (g)	0.023970		
Other Carbs (g)	0.561000		
Net Carbs (g)	14.648924		

Show All Nutrients Show Analysis Override Auto Calculations

Decimal Places:

Total Sugars: Includes both naturally occurring and added sugar.

Added Sugars: From empty Calorie ingredients such as: sugar, honey, high fructose corn syrup, etc. Mixed foods may contain Added Sugars.



RACC

noun | racc | \ˈrɑk\

: reference amounts customarily consumed




DEFINITION


Serving sizes of foods that can be reasonably consumed at one eating occasion. These have recently been updated to reflect real-world consumption. A RACC table can be found in the Code of Federal Regulations, 21CFR101.12.

updated in 2016

FOODS WITH CHANGED RACCs

40g  MOST BREAKFAST CEREALS	8 sq inch*  PIE CRUST, PASTRY SHEETS	50g  FRUITS USED AS INGREDIENTS
--	---	--

360 mL  CARBONATED, NON CARBONATED BEVERAGES	15g/15 mL  HARD CANDIES/LIQUID CANDIES	360 mL  COFFEE OR TEA
---	---	--

8g  SUGAR	170g  YOGURT	240 mL  MILK BEVERAGES, FRUIT JUICES
--	---	---

2 TBSP  CAKE FROSTINGS, ICINGS	85g  CANNED FISH, SHELLFISH, GAME MEAT	2/3 c  ICE CREAM, FROZEN YOGURT
--	--	---



Nutrition Facts			
2 Servings Per Container			
Serving size		12 fl oz (360 mL)	
	per serving	per container	
Calories	150	300	
	% Daily Value*	% Daily Value*	
Total Fat	1g	1%	2g
Saturated Fat	0g	0%	0g
Trans Fat	0g	0%	0g
Cholesterol	0mg	0%	0mg
Sodium	10mg	0%	20mg
Total Carbohydrate	38g	14%	76g
Dietary Fiber	0g	0%	0g
Total Sugars	37g		73g
Includes Added Sugars	35g	70%	70g
Protein	0g		0g
Vitamin D	0mcg	0%	0mcg
Calcium	4mg	0%	7mg
Iron	0mg	0%	0mg
Potassium	18mg	0%	37mg

*The % Daily Value 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.

formula

Recipe weight / RACC = XX

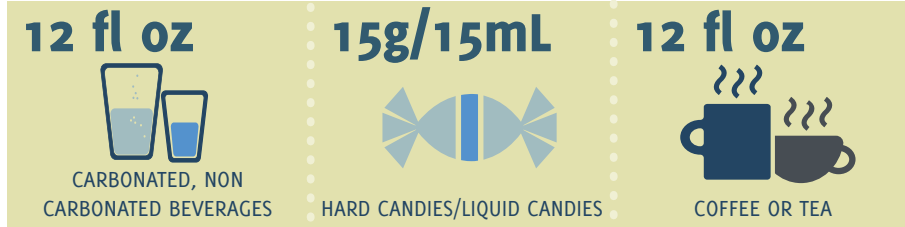
XX multiplied by 100 = XX%

USING RACC TO DETERMINE DUAL COLUMN USAGE

With the new rules, containers that hold between 2 and 3 servings of a food may now need to show a Dual Column label to show nutrition information for a single serving and per the whole container. To determine this, check the determined serving size for your product. If your package weighs at least 200 percent and up to and including 300 percent of the applicable reference amount, you need to use the Dual Column label.



RACC Changes Overview



Carbonated/Non Carbonated Beverages

- 360 mL - 12 fl oz (old 240 mL - 8 fl oz)
- Does not include milk, fruit juices, fruit drinks, and vegetable juices

Hard/Powdered/Liquid Candies

- 15 mL for liquid candies
- 15 g for all others (old 15g)

Prepared Coffee/Tea Flavored/Sweetened

- 360 mL - 12 fl oz (old 240 mL - 8 fl oz)

Breakfast Cereals Weighing 20 g - 43 g Per Cup

- 40g (old 30g)

Breakfast Cereals Weighing 43 g Per Cup

- 60g (old 55g)

Pie Crust/Pastry Sheets

- The allowable declaration closest to an 8 square inch surface area (old 1/6 of 8"; 1/8 of 9" crust)

Fruits Used Primarily as Ingredients

- Avocado 50g (old 30g)
- Others (cranberries, lemon, lime) 50g (old 55g)





RACC Changes Overview



Cake Frostings/Icings

- 2 Tbsp (old 35g)

Fish/Shellfish/Game Meat Canned

- 85g (old 55g)

Ice Cream/Frozen Desserts/Frozen Fruit Juices

- Includes the volume for coatings and wafers
- 2/3 cup (old 1/2 cup)

Milk/Milk Substitutes/Fruit Juice Concentrates

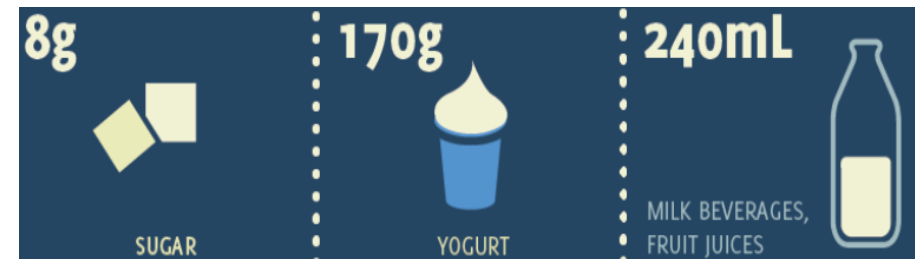
- e.g., drink mixers, frozen fruit juice concentrate, sweetened cocoa powder)
- Amount to make 240 mL drink (without ice)

Yogurt

- 170g (old 225g)

Sugar

- 8g (old 4g)





Yogurt RACC Change Example

1990

2016

225 g RACC & Serving Size

170 g RACC & Serving Size

Nutrition Facts	
Serving Size 1 Container (225g)	
Amount Per Serving	
Calories 170	Calories from Fat 10
% Daily Value*	
Total Fat 1g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 10mg	3%
Sodium 75mg	3%
Total Carbohydrate 23g	8%
Dietary Fiber 1g	4%
Sugars 21g	
Protein 19g	
Vitamin A 0%	• Vitamin C 0%
Calcium 20%	• Iron 0%
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:</small>	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Excellent Source of Calcium

Nutrition Facts	
Serving size 1 Container (170g)	
Amount per serving	
Calories 130	
% Daily Value*	
Total Fat 0.5g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 60mg	3%
Total Carbohydrate 17g	6%
Dietary Fiber 1g	4%
Total Sugars 16g	
Includes 10g Added Sugars	20%
Protein 14g	14%
Vitamin D 0mcg	0%
Calcium 155mg	10%
Iron 0mg	0%
Potassium 210mg	4%
<small>*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.</small>	
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Good Source of Calcium

- RACC changes may affect Nutrient Content Claims
- Be sure to evaluate your entire package when updating labels with RACC changes



Dual Column Labeling

Nutrition Facts				
2 servings per container				
Serving size		1 cup (255g)		
	Per serving		Per container	
Calories	220		440	
	% DV*		% DV*	
Total Fat	5g	8%	10g	15%
Saturated Fat	2g	10%	4g	20%
Trans Fat	0g		0g	
Cholesterol	15mg	5%	30mg	10%
Sodium	240mg	10%	480mg	21%
Total Carb.	35g	12%	70g	23%
Dietary Fiber	6g	21%	12g	43%
Total Sugars	7g		14g	
Incl. Added Sugars	4g	8%	8g	16%
Protein	9g		18g	
Vitamin D	5mcg	25%	10mcg	50%
Calcium	200mg	15%	400mg	30%
Iron	1mg	6%	2mg	10%
Potassium	470mg	10%	940mg	20%

* 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.

- Required on packages that can be consumed in one or multiple sittings
- Nutrition information presented per serving and per package
- For packages that contain 200% and up to and including 300% of the RACC
- A 3oz (90g) bag of chips would be labeled per serving [1oz (30 g)] and per package [90 g]



Dual Column Exemptions

- Products that meet the requirements for tabular format
- Raw fruits, vegetables and seafood that provide voluntary labeling/advertising or when claims are made
- Products that require further preparation (e.g. pancake mix) and voluntarily provide an additional column “as prepared”
- Products that are commonly consumed in combination with another food (e.g. cereal and milk)
- Products that provide additional column for two or more groups (e.g. infants and children less than 4 years)
- Popcorn (e.g. one column for popped)
- Varied weight products (e.g. cheeses sold at random weights)



Documentation

- As a prudent manufacturer documentation is and has always been a great standard to strive for.
- Document how you arrived at your nutritional information.
- Attach document files to your recipes and ingredients in Genesis R&D.
- Documentation examples:
 - supplier spec sheets
 - analyses of nutrient databases
 - recipes or formulations
 - batch records
 - Any other records that contain the required information





Documentation

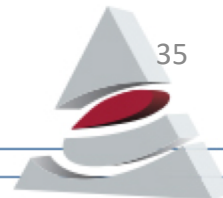
- When a laboratory test is not available to decipher sources, the following documentation is required:
- Beneficial vs. non beneficial dietary fiber or a combo
 - Including soluble and insoluble
- Total vs added sugar or a combo
 - Especially when added sugars are subject to non-enzymatic browning and/or fermentation and the manufacturer is declaring less added sugar than was added to the original recipe

Spreadsheet Report

Search for Missing Values/Documentation

Recipe: SAMPLE, Fruit Salad Spreadsheet: SAMPLE, Fruit Salad

Item Name	Quantity	Measure	Cals (kcal)	Prot (g)	Carb (g)	Fib(16) (g)	Sugar (g)	SugAdd (g)	Fat (g)	SatFat (g)	TransFat (g)
SAMPLE, Fruit Salad	1 Serving		115.861969	1.5...	15.179023	1.811876	11.346147	0	6.38...	2.4789...	
peaches, fresh, sliced	0.1 Cup		6.006000	0.1...	1.469160	0.222826	1.246334	0	0.03...	0.0029...	
walnuts, english, dried, chopped	0.05 Cup		38.259000	0.8...	0.802035	0.391950	0.152685	0	3.81...	0.3583...	
banana, fresh, medium, 7" to 7 7/8"	0.1 Each		10.502000	0.1...	2.695120	0.306800	1.443140	0	0.03...	0.0132...	
apple, fresh, small, 2 3/4"	0.1 Each		7.748000	0.0...	2.057690	0.357600	1.548110	0	0.02...	0.0041...	
grapes, seedless, fresh, thompson	0.1 Cup		10.419000	0.1...	2.733100	0.135900	2.337480	0	0.02...	0.0081...	
pears, canned, halves, in juice	0.1 Cup		12.400000	0.0...	3.209120	0.396800	2.405600	????	0.01...	0.0009...	
whipped topping, frozen, semi solid	0.15 Cup		30.527969	0.1...	2.212798	0	2.212798	????	2.42...	2.0911...	??
Total	1 Serving		115.861969	1.5...	15.179023	1.811876	11.346147	0	6.38...	2.4789...	
%				3.0...	5.519645	6.470985		0	8.19...	12.394...	
Recommen... (US Label Adult (2016))											



Best Practices for Transition to 2016 Label



- Did formulas or ingredients change?
- Did the RACC change?
- Does your package require a dual column based on 200% - 300% RACC?
- Are your nutrient content claims supported on your 2016 labels?
- Use Spreadsheet report – find and populate missing nutrient values
- Contact suppliers for updated information that supports 2016 labels
- Calculate and document Added Sugars value in ingredients and/or finished products
- Review Dietary Fiber information and document sources



Genesis R&D Training

Genesis Professional Training | April 25-26, 2018 | San Diego, CA

This training session covers the fundamentals of the Genesis R&D Food program: creating ingredients, building recipes/formulas, obtaining nutrition analysis, analysis reporting, best practices, and basic labeling features.

Genesis Professional Training | May 9-10, 2018 | Oak Brook, IL

This training session covers the fundamentals of the Genesis R&D Food program: creating ingredients, building recipes/formulas, obtaining nutrition analysis, analysis reporting, best practices, and basic labeling features.

Genesis Professional + Menu Label Training | May 23-24, 2018 | Oak Brook, IL

This training session covers ingredient creation and recipe/menu building, best practices, and analysis reporting specific to restaurants, grocery stores, and those who have to comply with the FDA's Menu Labeling regulations. Additionally, we will discuss how Genesis R&D helps you comply with the Menu Labeling regulations.

Learn more: <https://www.esha.com/news-events/training-schedule/>

QUESTIONS?



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