



WEBINAR



Working with Recipes in Genesis R&D Foods

Presented by **ESHA Research**

Wednesday, April 24, 2019

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



ESHA Research

ESHA Research was established in 1981 as one of the very first nutrition software solutions. 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 Solutions

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

Our mission is to help remove the complexity of product development and regulatory compliance for the food, beverage, and supplement industries through software, services, and nutritional databases.



Genesis R&D Food

Genesis R&D® Foods, first released in 1991, is designed to help users manage processes, overcome industry challenges, and meet federal requirements. Industry professionals use Genesis R&D for quick and accurate nutrient evaluation, virtual product development, nutrition labeling, and regulatory compliance.

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



Upcoming Webinars



Genesis R&D Supplements 101 | April 30, 2019

Genesis R&D Supplements offers users all the tools needed for data management and label creation for supplements and nutritionals. This webinar will go over how to create Ingredients and Formulas, how to view and modify allergen and ingredient statements, how to make adjustments to the program-generated Supplement Facts and how to organize and share your data.

Using Recipe Yields and Moisture Adjustments | May 14, 2019

Cooking often results in a loss of moisture, which affects the nutrition content of your food. During this webinar, we will review the Recipe Yields moisture adjustment feature in Genesis R&D Foods and discuss what types of foods warrant a moisture adjustment, how to determine the amount of your moisture adjustment, how to enter an adjustment in Genesis R&D, and what your Recipe's nutrient amounts look like before and after.

2016 Nutrition Labeling Guidelines Review | July 17, 2019

The January 1, 2020 deadline to comply with the FDA's Final Rule on Food Labeling is quickly approaching. Join us on July 17, 2019, for a review of the key regulatory changes and a detailed discussion on how Genesis R&D can assist with compliance. During this webinar, we will look at the different 2016 label formats and discuss the definition and calculation of Dietary Fiber, newly required nutrients such as Added Sugars and Potassium, the 2016 Daily Values, rounding options, the nutrient calculator, and more.

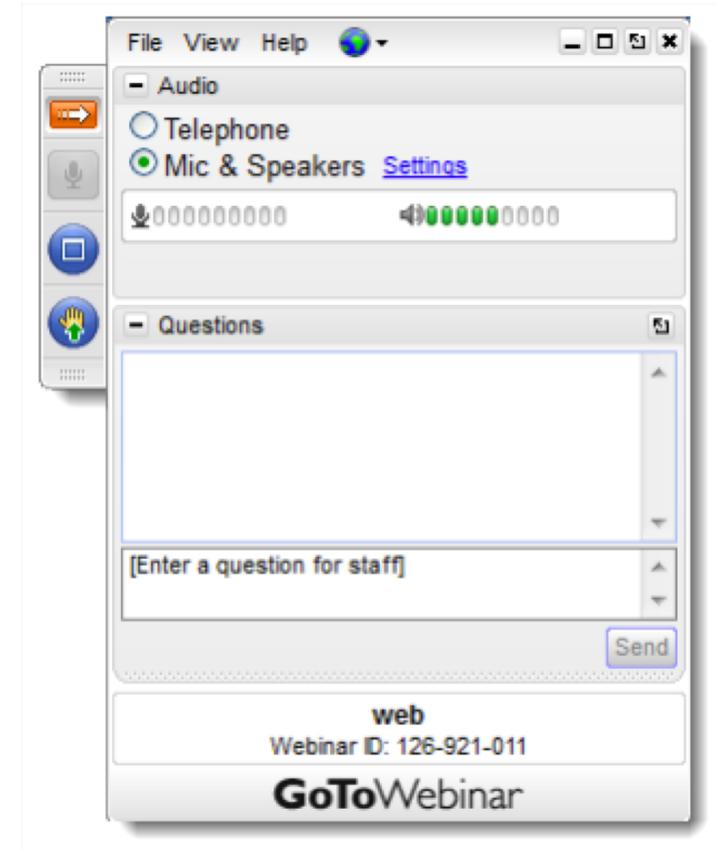
To register or view archived webinars please visit: www.esha.com/news-events/webinars



Please Note!

- ✓ The webinar is being recorded
- ✓ All webinars available on our website
- ✓ Submit your questions in the GoToWebinar control panel

WEBINAR



What we'll cover today

- Entering Recipes in Genesis R&D
- Setting Serving Size and RACC
- Standard Label
- Best Reports for Documentation
- Q&A



Recipes

Recipes are one of the foundational functions of Genesis R&D

- Build Recipes from Ingredients
- Set serving size
- View analyses in various reports and formats



This - little bit
That - little bit
The other - pinch



Recipe Analysis

- Enter your supplier ingredients or use ESHA Database items
- Select ingredients that most accurately represent your finished product
- Consider processes in the preparation of the food that might affect the nutritional content of the finished product

Nutrition Facts

8 servings per container
Serving size 1 slice (59g)

Amount per serving
Calories **180**

| | % 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 | |
| Vitamin D 0mcg | 0% |
| Calcium 55mg | 4% |
| Iron 2mg | 10% |
| Potassium 1750mg | 35% |

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet.





Serving Size

- Enter by number of servings
- Or
- Set specific serving size
- Batch – any size
 - Large
 - Per serving
 - By percent
 - 100g = 100%

Recipe Information

Recipe

Nutrients

Measures

Brix Calculation

Cost

Groups

Compare To

Preparation Method

*Name: Garlicky Brussels Sprouts

Serving Size:

A recipe makes 1 Servings.

A serving weighs 88 Gram

A serving is Select Measure



Serving Size & RACC

- Reference Amounts Customarily Consumed
- 21 CFR 101.12
- Be aware of 2016 changes
- Identify the RACC Product Category that your product fits
- Use the RACC as the basis to determine Serving Size
 - Serving size may or may not exactly meet the RACC



| Product category | Reference amount | Label statement ⁴ |
|---|------------------|--|
| Bakery Products: | | |
| Bagels, toaster pastries, muffins (excluding English muffins) | 110 g | _piece(s) (_g) |
| Biscuits, croissants, tortillas, soft bread sticks, soft pretzels, corn bread, hush puppies, scones, crumpets, English muffins | 55 g | _piece(s) (_g) |
| Breads (excluding sweet quick type), rolls | 50 g | _piece(s) (_g) for sliced bread and distinct pieces (e.g., rolls); 2 oz (56 g/ _inch slice) for unsliced bread |
| Bread sticks—see crackers | | |
| Toaster pastries—see bagels, toaster pastries, muffins (excluding English muffins) | | |
| Brownies | 40 g | _piece(s) (_g) for distinct pieces; fractional slice (_g) for bulk |
| Cakes, heavyweight (cheese cake; pineapple upside-down cake; fruit, nut, and vegetable cakes with more than or equal to 35 percent of the finished weight as fruit, nuts, or vegetables or any of these combinations) ⁵ | 125 g | _piece(s) (_g) for distinct pieces (e.g., sliced or individually packaged products); _fractional slice (_g) for large discrete units |
| Cakes, mediumweight (chemically leavened cake with or without icing or filling except those classified as light weight cake; fruit, nut, and vegetable cake with less than 35 percent of the finished weight as fruit, nuts, or vegetables or any of these combinations; light weight cake with icing; Boston | 80 g | _piece(s) (_g) for distinct pieces (e.g., cupcake); _fractional slice (_g) for large discrete units |



FDA Guidance - February 2018

Contains Nonbinding Recommendations

**Reference Amounts Customarily
Consumed: List of Products for Each
Product Category:
Guidance for Industry**

*Additional copies are available from
Office of Nutrition and Food Labeling
Nutrition Programs Staff/HFS-830
Center for Food Safety and Applied Nutrition
5001 Campus Drive
College Park, MD 20740
240-402-1450
<http://www.fda.gov/FoodGuidances>*

You may submit electronic or written comments regarding this guidance at any time. Submit electronic comments to <https://www.regulations.gov>. Submit written comments to the Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number [FDA-2016-D-4098] listed in the notice of availability that publishes in the *Federal Register*.

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Food Safety and Applied Nutrition

February 2018

Includes:

- RACC product categories
- Lists more examples of each category
- If you refer to the RACC but cannot find the food you are working with or need clarification, see this resource

Adjustments

Fine-tune analyses

- Moisture Adjustment
Loss or Target
- Nutrient Override
From lab analysis or
known factors





Nutrient Calculator

Assists in converting nutrients from one unit to another

- Carbohydrates, Carbohydrates (Available)
- U.S. Dietary Fiber fields
- Vitamin A
- Vitamin B3/Niacin, Tryptophan
- Vitamin D
- Vitamin E
- Folate/Folic Acid
- Salt, Sodium





Check Data

Serves as reminder to review; not necessarily indication of compliance vs. non-compliance

- Tolerance
- Calories
- Fat
- Weight – Proximates
- Carbohydrate

Check Components

Tolerances
5 % Use this percentage when checking if Estimated values exceed Actual values

Calories estimated using 4-4-9-7

| | | | | | | | | | |
|--------------------|---------|---------|--------|-------|---------|-----|-------|---|---|
| Calories Estimated | 136.218 | Protein | 14.327 | Carbs | 116.846 | Fat | 5.045 | Alcohol | 0 |
| Calories Entered | 137.077 | | | | | | | | |
| ----- | | | | | | | | | |
| %Difference | 0.627 | | | | | | | <input checked="" type="checkbox"/> Interpret missing values as 0 | |

Total Fat estimated by summing components

| | | | | | | | | | |
|---------------------|--------|-----------|-------|------|-------|------|-------|--|-------|
| Total Fat Estimated | 0.426 | Saturated | 0.086 | Mono | 0.108 | Poly | 0.231 | Trans | 0.001 |
| Total Fat Entered | 0.561 | | | | | | | | |
| ----- | | | | | | | | | |
| %Difference | 24.011 | | | | | | | <input type="checkbox"/> Interpret missing values as 0 | |

Weight estimated by summing components

| | | | | | | | | | |
|------------------|--------|---------|--------|-------|--------|-----|-------|---|---|
| Weight Estimated | 79.003 | Protein | 3.582 | Carbs | 29.212 | Fat | 0.561 | Alcohol | 0 |
| Weight Entered | 79.000 | Water | 45.410 | Ash | 0.239 | | | | |
| ----- | | | | | | | | | |
| %Difference | 0.004 | | | | | | | <input checked="" type="checkbox"/> Interpret missing values as 0 | |

Carbohydrate

Carbohydrate Available (28.056) = Carbohydrate (29.212) - Dietary Fiber (1.156)

%Difference 0 Interpret missing values as 0

Review the Spreadsheet Report

| Item Name | Quantity | Measure | Cals (kcal) | Prot (g) | Carb (g) | TotFib (g) | Fib(16) (g) | Sugar (g) | SugAdd (g) | Fat (g) | Sa |
|-------------------------------------|----------|---------|-------------|----------|----------|------------|-------------|-----------|------------|---------|----|
| Gluten Free Bread | 1 | Serving | 217.88 | 4.79 | 35.96 | 1.55 | 0.19 | 4.35 | 3.24 | 5.96 | |
| flour, baking, gluten free | 38.1807 | Gram | 134.15 | 2.06 | 30.96 | 1.03 | -- | 0 | 0 | 0 | |
| water, distilled | 15.2865 | Gram | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| egg, raw | 12.8928 | Gram | 18.44 | 1.62 | 0.09 | 0 | 0 | 0.05 | 0 | 1.23 | |
| butter, unsalted | 4.8822 | Gram | 35.01 | 0.04 | 0.00 | 0 | 0 | 0.00 | 0 | 3.96 | |
| sugar, white, granulated | 3.2469 | Gram | 12.57 | 0 | 3.25 | 0 | 0 | 3.24 | 3.24 | 0 | |
| powdered milk, whole | 2.7492 | Gram | 13.64 | 0.72 | 1.06 | 0 | 0 | 1.06 | 0 | 0.73 | |
| yeast, dry, instant, food service | 0.6873 | Gram | 2.65 | 0.31 | 0.27 | 0.19 | 0.19 | 0 | 0 | 0.04 | |
| salt, table | 0.6478 | Gram | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| gum, xanthan, Novaxan, 200 granular | 0.4266 | Gram | 1.43 | 0.03 | 0.33 | 0.33 | -- | 0 | 0 | 0.00 | |
| Total | 1 | Serving | 217.88 | 4.79 | 35.96 | 1.55 | 0.19 | 4.35 | 3.24 | 5.96 | |

Identify missing values (indicated by dashes) and populate the **Ingredient record** to fill in the blanks.



Nutrients to View

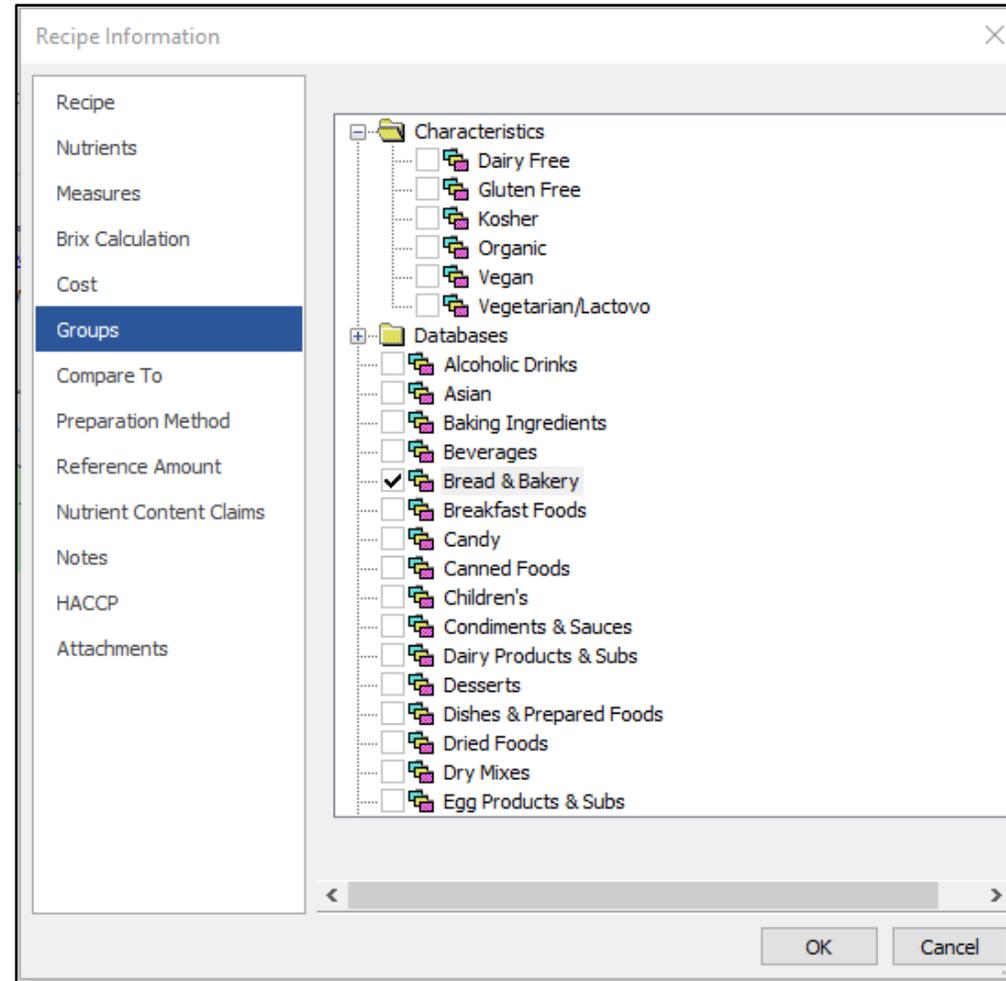
- Sets of nutrients pertinent to your reports or needed for labels
- Genesis R&D includes several predetermined sets of nutrients
- Create as many new sets as you need
- Switch between the sets at any time





Groups in Genesis R&D

- Help organize data
- Select from existing Groups or create your own
- Can assign an ingredient or a recipe to multiple Groups
- Preferences: to always assign new items to Group(s)





Best Practices for Documentation

- Take a snapshot in time
- Keep records of final recipe, analysis, and label used on packaging
 - Recipe
 - Spreadsheet with minimum of label nutrients – additional may be desirable
 - Label
- Use Groups to save and sort versions of Recipes
- Print to pdf in Genesis R&D to capture records
- Save pdf as an attachment to your Recipe



Audit Trail

Bread Test

Recipe Information

| Date Time | Owner | Comment |
|---------------------|---------------|--|
| 04/17/2019 08:36 AM | eshacloud\... | 4/17/2019 Moisture loss per before & after weights. 76585 lb less 21.9 lb loss. art |
| 04/17/2019 08:43 AM | eshacloud\... | 4/17/2019 Spreadsheet reviewed. Confirmed Dietary Fiber 2016. Confirmed zero trans fat for corn syrup... |

- Turned off by default
- When enabled and a file is saved, records the date and user that made the save
- Useful piece of documentation as Ingredients and Recipes are modified
- Comment box to enter additional notes



Genesis R&D Training

Genesis Training | May 15-17, 2019 | Oak Brook, IL

NEW FORMAT - Combo, Professional, or Advanced training session. The first two days cover the fundamentals of the Genesis R&D Food program: creating ingredients, building recipes/formulas, nutrition analysis and reporting, labeling, and best practices. In addition, you can attend a third day of Advanced instruction, or just attend the Advanced session as a single day. Advanced training presents more complex scenarios and more comprehensive regulatory issues.

Professional Genesis + Menu Label Training | June 19-20, 2019 | 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 must comply with the FDA's Menu Labeling regulations. Additionally, we will discuss how Genesis R&D helps you comply with the Menu Labeling regulations.

Genesis Training | July 10-12, 2019 | Oak Brook, IL

NEW FORMAT - Combo, Professional, or Advanced training session. See description above.

Genesis Training | August 20-22, 2019 | Oak Brook, IL

NEW FORMAT - Combo, Professional, or Advanced training session. See description above.

See the Full Schedule: <https://www.esha.com/news-events/training-schedule/>

QUESTIONS?



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