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® 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

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.

Working with Proprietary Blends in Genesis R&D Supplements | July 31, 2019
Genesis R&D Supplements offers supplement formulators the ability to create proprietary blends, and then incorporate them into final formulations. During this webinar, we will demonstrate how to create a proprietary blend, add it to a final formula and review a variety of display options on the supplement facts label.

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
What we’ll cover today

• Types of foods that warrant adjustment
• How to determine amount of adjustment
• How to enter an adjustment in Genesis R&D
• Q&A
Moisture Adjustment

Use the Moisture Adjustment feature to fine-tune your analysis and report more accurate information on your labels.
Foods That Warrant Moisture Adjustment

Examples:
- Baked goods
- Caramel
- Sauces, soups, syrups
- Smoked meats
- Dried, freeze-dried
- Foods that experience heating, evaporation, reduction, and more
How Does Moisture Loss Affect Content?

Dough vs. Bread
What Does That Look Like on a Label?

Dough*

*The 50 g serving size is based on our finished Recipe serving.
In the kitchen, the portion of dough for one serving may weigh ~57 g.

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**Nutrition Facts**

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>Calories: 70</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12 servings per container</strong></td>
<td><strong>2 slices (50g)</strong></td>
</tr>
<tr>
<td><strong>Serving size</strong></td>
<td><strong>2 slices (50g)</strong></td>
</tr>
<tr>
<td><strong>Total Fat</strong> 0g</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Cholesterol</strong> 0mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Sodium</strong> 5mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong> 16g</td>
<td><strong>% Daily Value</strong>: 6%</td>
</tr>
<tr>
<td><strong>Dietary Fiber</strong> 1g</td>
<td><strong>% Daily Value</strong>: 4%</td>
</tr>
<tr>
<td><strong>Total Sugars</strong> 3g</td>
<td><strong>Includes 2g Added Sugars</strong>: 4%</td>
</tr>
<tr>
<td><strong>Protein</strong> 2g</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Vitamin D</strong> 0mcg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Calcium</strong> 3mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Iron</strong> 1mg</td>
<td><strong>% Daily Value</strong>: 6%</td>
</tr>
<tr>
<td><strong>Potassium</strong> 27mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td>Not a significant source of saturated fat and trans fat.</td>
<td></td>
</tr>
</tbody>
</table>

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**Nutrition Facts**

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>Calories: 80</th>
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</thead>
<tbody>
<tr>
<td><strong>12 servings per container</strong></td>
<td><strong>2 slices (50g)</strong></td>
</tr>
<tr>
<td><strong>Serving size</strong></td>
<td><strong>2 slices (50g)</strong></td>
</tr>
<tr>
<td><strong>Total Fat</strong> 0g</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Cholesterol</strong> 0mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Sodium</strong> 5mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong> 18g</td>
<td><strong>% Daily Value</strong>: 7%</td>
</tr>
<tr>
<td><strong>Dietary Fiber</strong> 1g</td>
<td><strong>% Daily Value</strong>: 4%</td>
</tr>
<tr>
<td><strong>Total Sugars</strong> 3g</td>
<td><strong>Includes 2g Added Sugars</strong>: 4%</td>
</tr>
<tr>
<td><strong>Protein</strong> 2g</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Vitamin D</strong> 0mcg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Calcium</strong> 4mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td><strong>Iron</strong> 1mg</td>
<td><strong>% Daily Value</strong>: 6%</td>
</tr>
<tr>
<td><strong>Potassium</strong> 31mg</td>
<td><strong>% Daily Value</strong>: 0%</td>
</tr>
<tr>
<td>Not a significant source of saturated fat and trans fat.</td>
<td></td>
</tr>
</tbody>
</table>

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Serving Size

- Enter by number of servings
  Or
- Set specific serving size
- Depending on which you select, a moisture adjustment may show more or less significant effects
How Do you Determine Moisture Loss?

Measurements

• Take before and after weights of the same portion or full batch
• Assuming that all of the weight change is due to moisture loss

Lab Analysis

• Obtaining lab value for moisture content gives you a target moisture
How to Enter Moisture Loss in Genesis R&D

Edit Yields and Apply Loss by:

• Weight
• Percent*

*In Genesis R&D, applying a moisture loss by “percent” means: *what percent of the moisture content is lost*

• Original Value and Original Percent provide reference points
• Ingredients must report data in the Water field for accurate results
What About Moisture Gain?

Examples:

• Pasta, Rice, Beans

• If only water is absorbed, then include water as an ingredient in the proper amount in Recipe – but consider the full process, like draining, effect on starches, etc.

• If additional ingredients or nutrients, e.g. juice, brine, sodium, sugar, etc., are absorbed, then they must be factored - determine amount, or obtain lab analysis
• Notes field
• Audit Trail
• Attach files directly in Recipe record
Genesis R&D Training

Professional Genesis R&D + 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 R&D Training | July 10-12, 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.

Genesis R&D Training | August 20-22, 2019 | Oak Brook, IL
NEW FORMAT - Combo, Professional, or Advanced training session. See description above.

Genesis R&D Training | October 9-11, 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/
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