



WEBINAR



Genesis R&D Foods 101 Part 1: Ingredients

Presented by **ESHA Research**

Wednesday, January 27, 2021

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 Foods

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

February 17, 2021 | Genesis R&D Foods 101 – Part 2: Recipes

During this webinar, we walk through the process of entering recipe data in Genesis R&D, how to set the serving sizes, and identify how you can review your recipes for errors, using reports and other features.

March 10, 2021 | Genesis R&D Foods 101 – Part 3: Ingredient Statements

During this webinar, we will provide an overview of the FDA's ingredient statement requirements and demonstrate how to modify the automatically generated ingredient list in Genesis R&D. We will also discuss best practices and common mistakes.

April 14, 2021 | Genesis R&D Foods 101 – Part 4: Allergens

During this webinar, we will demonstrate how to modify your allergen statement and discuss best practices for compliance when working with the Allergen features in Genesis R&D.

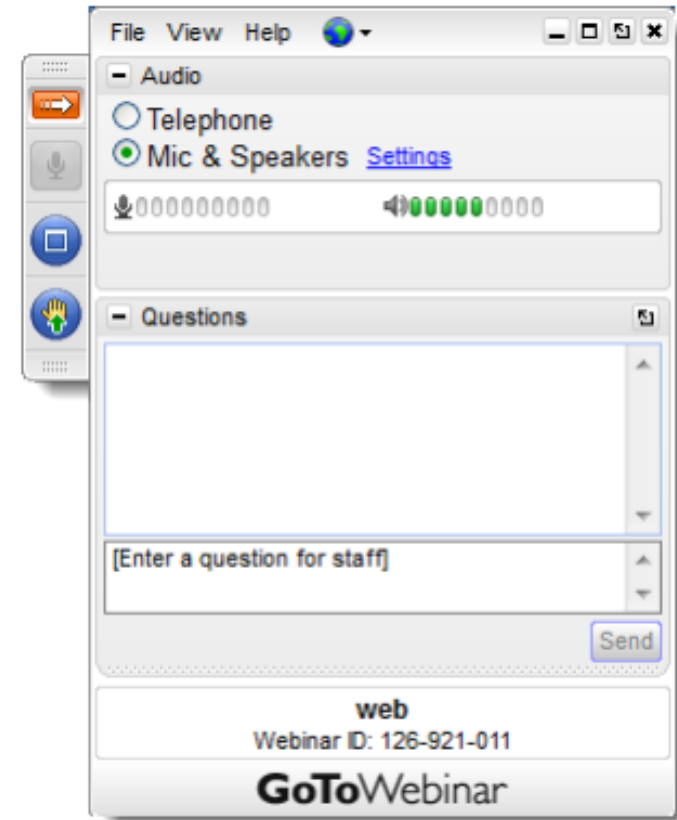
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Please Note!

- ✓ The webinar is being recorded
- ✓ All webinars available on our website
- ✓ Submit your questions in the GoToWebinar control panel
- ✓ We'll email a copy of the recording and the slides following the webinar

WEBINAR



What We'll Cover Today



- Naming Conventions
- Nutrients to Consider and Data Entry
- Nutrient Calculator
- Check Data
- Groups, Attributes, and Designations
- Composite Ingredients
- Reports and Exporting





Nutrients of Note*

- Calories
- Fat
- Saturated Fat
- Trans Fat
- Cholesterol
- Sodium
- Total Carbohydrate
- Dietary Fiber – by FDA definition
- Total Sugars
- Added Sugars
- Protein
- Vitamin D
- Calcium
- Iron
- Potassium

Nutrition Facts

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

Amount per serving
Calories 180
% Daily Value*

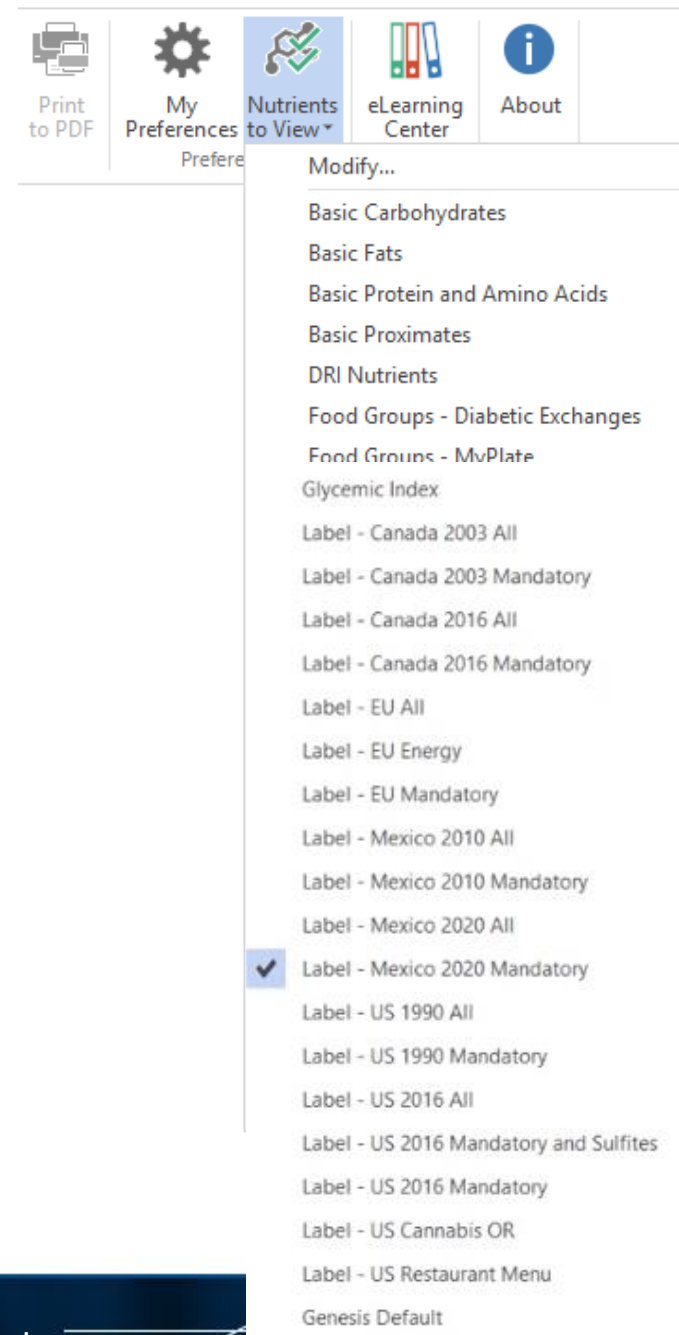
Total Fat 6g	8%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 190mg	8%
Total Carbohydrate 30g	11%
Dietary Fiber 1g	4%
Total Sugars 15g	
Includes 14g Added Sugars	28%
Protein 3g	
Vitamin D 0mcg	0%
Calcium 55mg	4%
Iron 2mg	10%
Potassium 1750mg	35%

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

*Be aware of the nutrients that you *must* report based on the country or countries for which you prepare labels.

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



The screenshot shows a software interface with a navigation bar at the top. The 'Nutrients to View' menu is open, displaying a list of nutrient sets. The 'Label - Mexico 2020 Mandatory' option is selected, indicated by a blue checkmark in a box to its left. Other options include 'Basic Carbohydrates', 'Basic Fats', 'Basic Protein and Amino Acids', 'Basic Proximates', 'DRI Nutrients', 'Food Groups - Diabetic Exchanges', 'Food Groups - MyPlate', 'Glycemic Index', and various 'Label' categories for Canada, EU, Mexico, and the US across different years and standards.

Navigation Item	Item
Print to PDF	Print to PDF
My Preferences	My Preferences
Nutrients to View	Nutrients to View
eLearning Center	eLearning Center
About	About

Item
Modify...
Basic Carbohydrates
Basic Fats
Basic Protein and Amino Acids
Basic Proximates
DRI Nutrients
Food Groups - Diabetic Exchanges
Food Groups - MyPlate
Glycemic Index
Label - Canada 2003 All
Label - Canada 2003 Mandatory
Label - Canada 2016 All
Label - Canada 2016 Mandatory
Label - EU All
Label - EU Energy
Label - EU Mandatory
Label - Mexico 2010 All
Label - Mexico 2010 Mandatory
Label - Mexico 2020 All
<input checked="" type="checkbox"/> Label - Mexico 2020 Mandatory
Label - US 1990 All
Label - US 1990 Mandatory
Label - US 2016 All
Label - US 2016 Mandatory and Sulfites
Label - US 2016 Mandatory
Label - US Cannabis OR
Label - US Restaurant Menu
Genesis Default





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

Calculate Nutrient

i How would you like to Calculate Vitamin A - RAE?

→ Animal Source
Vitamin A RAE (mcg) = Vitamin A IU (IU) / 3.33

→ Plant Source
Vitamin A RAE (mcg) = Vitamin A IU (IU) / 20

→ Animal Source
Vitamin A RAE (mcg) = Vitamin A RE (mcg)

→ Plant Source
Vitamin A RAE (mcg) = Vitamin A RE (mcg) / 2

Cancel



Available Carbohydrates


- Available Carbohydrates is used to report Carbohydrates on EU and Mexico Labels
- Available Carbohydrates = Total Carbohydrates – Total Dietary Fiber
- ESHA Database items report Available Carbohydrates if the Total Dietary Fiber field is populated
 - FDA 2016 Dietary Fiber definition affects the reporting of Total Dietary Fiber
 - If a food or ingredient only reports Dietary Fiber (2016) per the 2016 definition and Total Dietary Fiber cannot be determined, then the Total Dietary Fiber field is blank
- When entering ingredients in your Genesis R&D, use the Nutrient Calculator tool to populate the Available Carbohydrates field





Ingredient – Spec Sheet Report

- Per 100g by default
- You can change that to a different amount
- Nutrients, ingredients, and allergen information per the Ingredient record
- Date, comments, and signature lines
- Print hard copy or to pdf for electronic copy

 ESHA Research, Inc. milk, 2%, with vitamins A & D					
Date:	2021.01.27				
Product/Supplier:	USDA / USDA SR-28				
Nutrients Per:	100	gram			
Measure:	1 Cup = 244 g				
Nutrient	Amount	Unit	Nutrient	Amount	Unit
Calories	50.00	kcal	Folate, DFE	5.00	mcg DFE
Calories from SatFat	11.31	kcal	Folic Acid	0	mcg
Fat	1.98	g	Vitamin B12	0.53	mcg
Saturated Fat	1.26	g	Biotin	2.00	mcg
Trans Fatty Acid	0.08	g	Pantothenic Acid	0.36	mg
Poly Fat	0.07	g	Sodium	47.00	mg
Mono Fat	0.56	g	Fluoride	0.00	mg
Cholesterol	8.00	mg	Calcium	120.00	mg
Carbohydrates	4.80	g	Iron	0.02	mg
Dietary Fiber (2016)	0	g	Potassium	140.00	mg
Soluble Fiber (2016)	0	g	Phosphorus	92.00	mg
Insoluble Fiber (2016)	0	g	Iodine	24.00	mcg
Total Sugars	4.80	g	Magnesium	11.00	mg
Added Sugar	0	g	Zinc	0.48	mg
Protein	3.30	g	Selenium	2.50	mcg



Spreadsheet for Recipes

Complete and correct entry of Ingredients contributes to accurate and compliant recipe analysis and labels. Review the Spreadsheet report for *ALL Recipes* to ensure that required information is reported.

Item Name	Quantity	Measure	TransFat (g)	Chol (mg)	Vit D-mcg (mcg)	Calc (mg)	Iron (mg)	Pot (mg)	Sod (mg)
Webinar Sodium Override	1	Serving	0	62.82	0	15.77	1.09	571.53	350.00
salmon, atlantic, wild, baked web	3.12104	Ounce-w...	0	62.82	0	13.27	0.91	555.65	49.55
Webinar Marinade	31.2104	Gram	0	0	0	2.50	0.18	15.87	356.72
soy sauce, tamari	0.022122	Cup	0	0	0	1.27	0.15	13.51	355.90
water, municipal tap	0.08849	Cup	0	0	0	0.63	0	0.21	0.63
sugar, brown	0.17698	Tablespoon	0	0	--	0	0	--	0
ginger, ground	0.044245	Teaspoon	0	0	0	0.09	0.02	1.05	0.02
garlic cloves, fresh	0.08849	Each	0	0	0	0.48	0.00	1.06	0.05
starch, corn	0.17698	Tablespoon	0	0	0	0.03	0.01	0.04	0.13
Moisture Adjustment: Loss	6.00	Percent							
Total	1	Serving	0	62.82	0	15.77	1.09	571.53	350.00



Naming Conventions

- **Naturally Ordered Elements:** from general to specific detail of importance, e.g. Vanilla Extract Pure 2X
- **Upper vs Lower Case:** be consistent
- **Location:** ingredients/recipes intended for a specific region, should include a region code or abbreviation in the name to help you differentiate
- **Numbering:** use at least two-digits rather than one in order to maintain the numeric order. Include the zero for numbers 0-9 (e.g. 01, 02, 03)
- **Dates:** best practice, state dates beginning with the year: e.g. YYYYMMDD, YYYYMM, or YYYYQ1 - be consistent
- **User-Code:** use the User-Code field to help identify records



Audit Trail

- 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

The screenshot displays a software window titled "Ingredient: Test Ingredient *". On the left is a sidebar menu with options: Ingredient, Nutrients, Yields/Measures, Cost, Groups, Ingredient Statement, Allergens, Audits, and Attachments. The main area is divided into "Required" and "Optional" sections. The "Required" section includes fields for "*Name:" (containing "Test Ingredient"), "*Quantity:" (containing "100"), and "*Measure:" (a dropdown menu set to "Gram"). The "Optional" section includes a "Common Name:" field. Overlaid on this is a "New Audit Entry" dialog box with a close button (X). It shows a timestamp "- 01/22/2019 04:02 PM - eshacloud" and a "New Comment:" text area containing the text "Contacted supplier for clarification on Dietary Fiber." At the bottom of the dialog are "OK" and "Cancel" buttons. At the bottom of the main window, there are tabs for "Notes 1", "Notes 2", and "Notes 3".



Genesis R&D Training - Online

2-day Professional Training

This 2-day training session covers the fundamentals of the Genesis R&D Food program: creating ingredients, building recipes/formulas, nutrition analysis and reporting, labeling, and best practices. In addition, this session covers a comprehensive regulatory review.

1-day Advanced Training

This session covers advanced topics such as Advanced Labels, PDCAAS (protein digestibility score), range formulas, international labels, and much more. This session also covers a comprehensive regulatory review.

2-day Professional Dates	1-day Advanced Dates
February 23-24, 2021	February 25, 2021
March 23-24, 2021	March 26, 2021

Contact training@esha.com with any questions or to inquire about personalized training for your organization
See the Training Schedule at: <https://esha.com/news-events/training-schedule/>

QUESTIONS?



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