Product Formulation Checks & Balances with Genesis R&D Foods

Presented by ESHA Research

Wednesday, February 23, 2022

11:00 AM PT | 1:00 PM CT | 2:00 PM ET

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
- REX® Regulations Expert Document Search Portal
- 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.

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Genesis R&D Software

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
- Label Creation
- Regulatory Compliance

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Upcoming Webinars

Tune in to the 2022 webinar schedule.

New Regulatory Focused webinars and topics continue to be added.

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Webinar Topics*
- ☐ Genesis R&D Food Software
- ☐ Genesis R&D Supplements Software
- ☐ Food Processor Software
- ☐ Food Labeling Regulatory Compliance
- ☐ Supplement Labeling Regulatory Compliance
- ☐ Menu Labeling Regulatory Compliance

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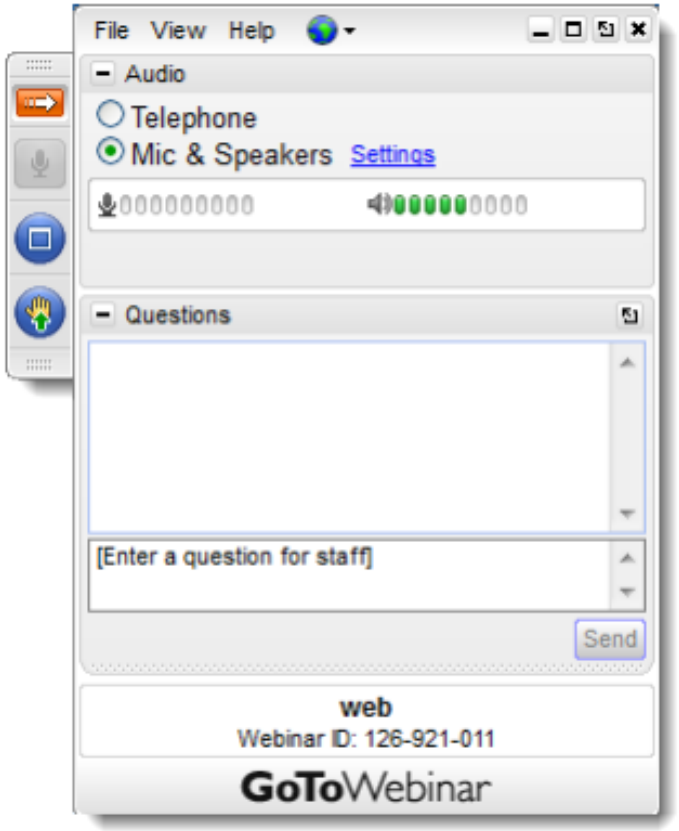
Please Note!

- ✓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



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What We'll Cover Today

- Due Diligence
- Nutrients to View
- Nutrient Calculator
- Check Data
- Spreadsheet & Other Reports
- Q&A

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Due Diligence

- Have consistent processes in place to report information on and about products as accurately as possible
- Consider information on product packaging and related resources - websites, marketing materials, social media
- Information shall not be misleading to consumers
- Information should bear in mind the protection and safety of consumers
- Essential to perform due diligence on all aspects of labeling of products to ensure that information is correct and appropriate

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Entering Ingredients and Recipes

Watch these Genesis R&D Foods 101 Webinars

- Part 1 – Ingredients: https://esha.com/webinars/genesis-rd-foods-101-part-1-ingredients/
- Part 2 – Recipes: https://esha.com/webinars/genesis-rd-foods-101-part-2-recipes/

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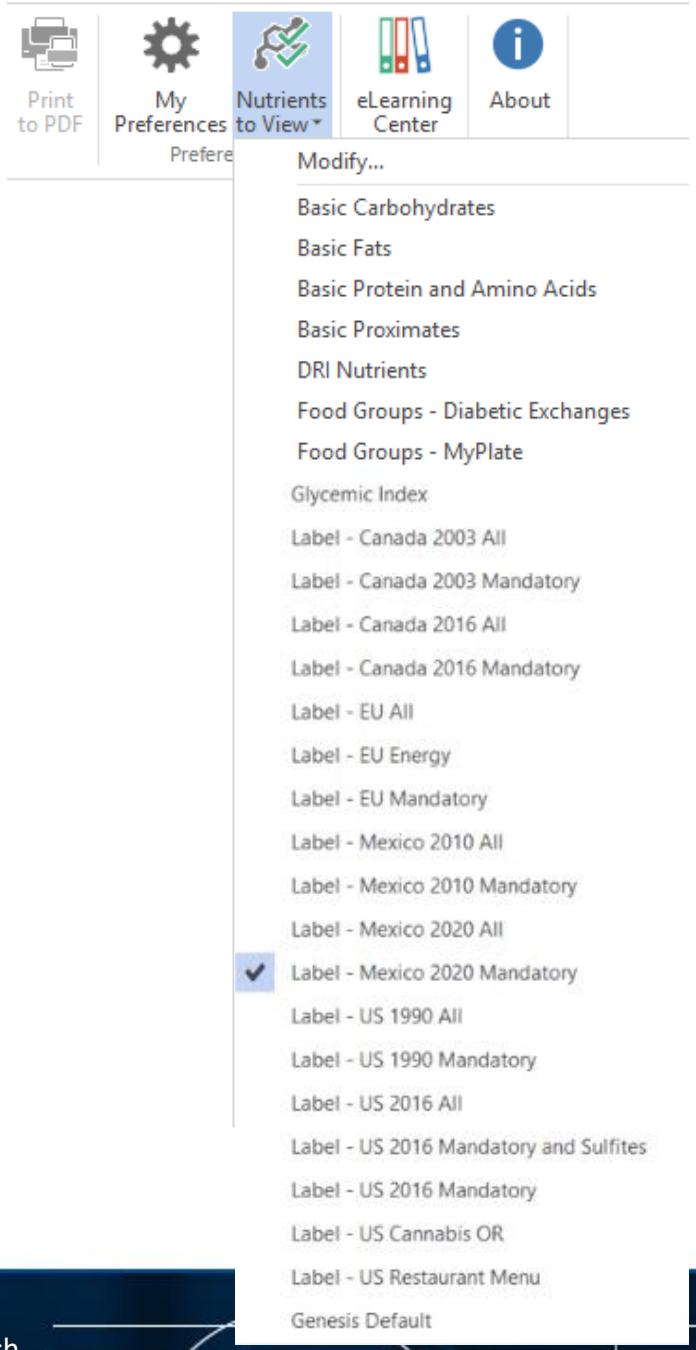
Nutrients to View

- 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



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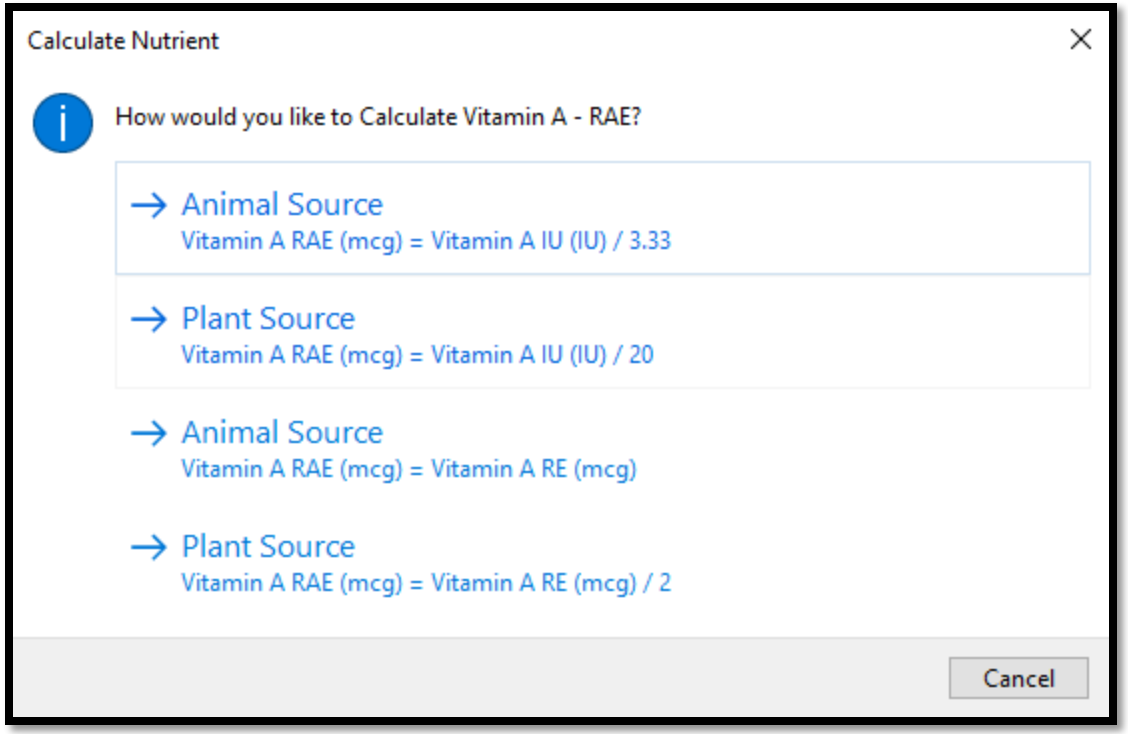
Nutrient Calculator

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



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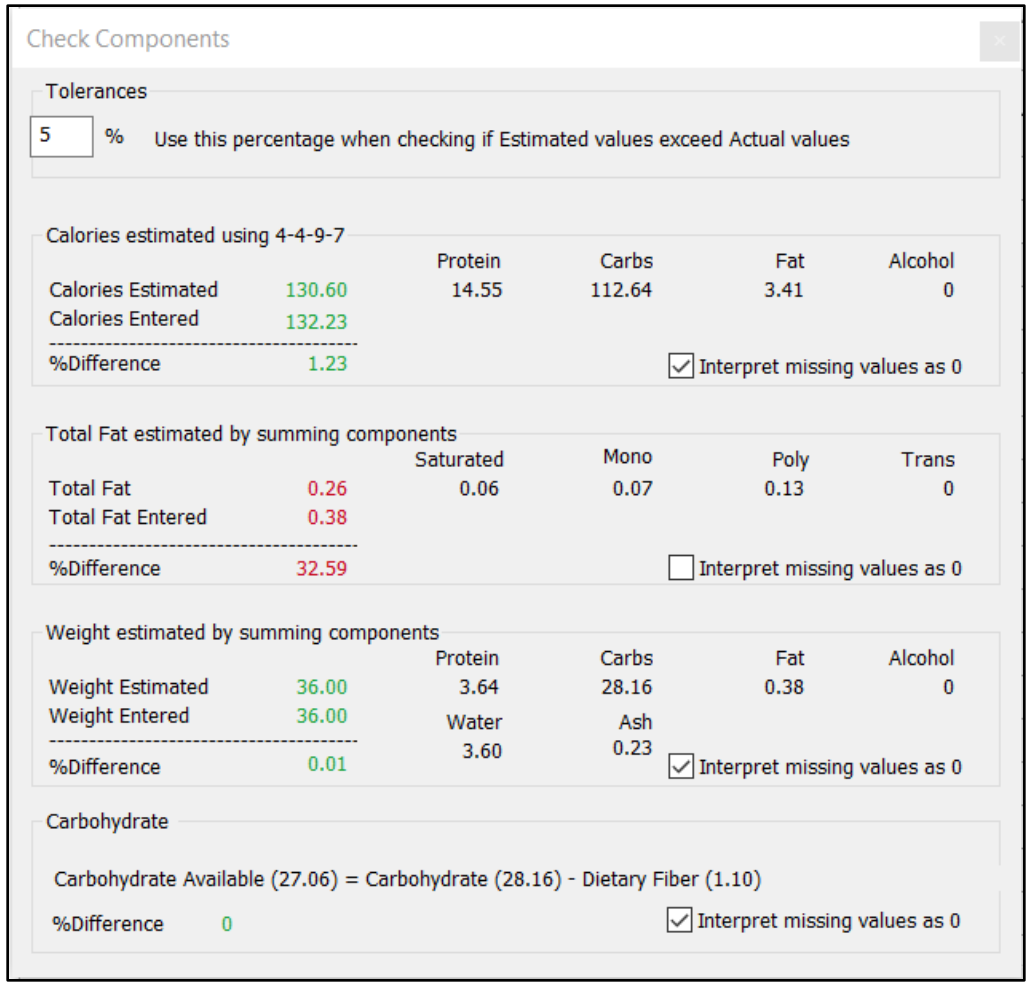
Check Data

- Use as part of your standard review of Recipes
- Compares estimated/calculated values to data as entered
- Does not indicate compliance or non-compliance, but serves as helpful feedback



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Spreadsheet Report

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

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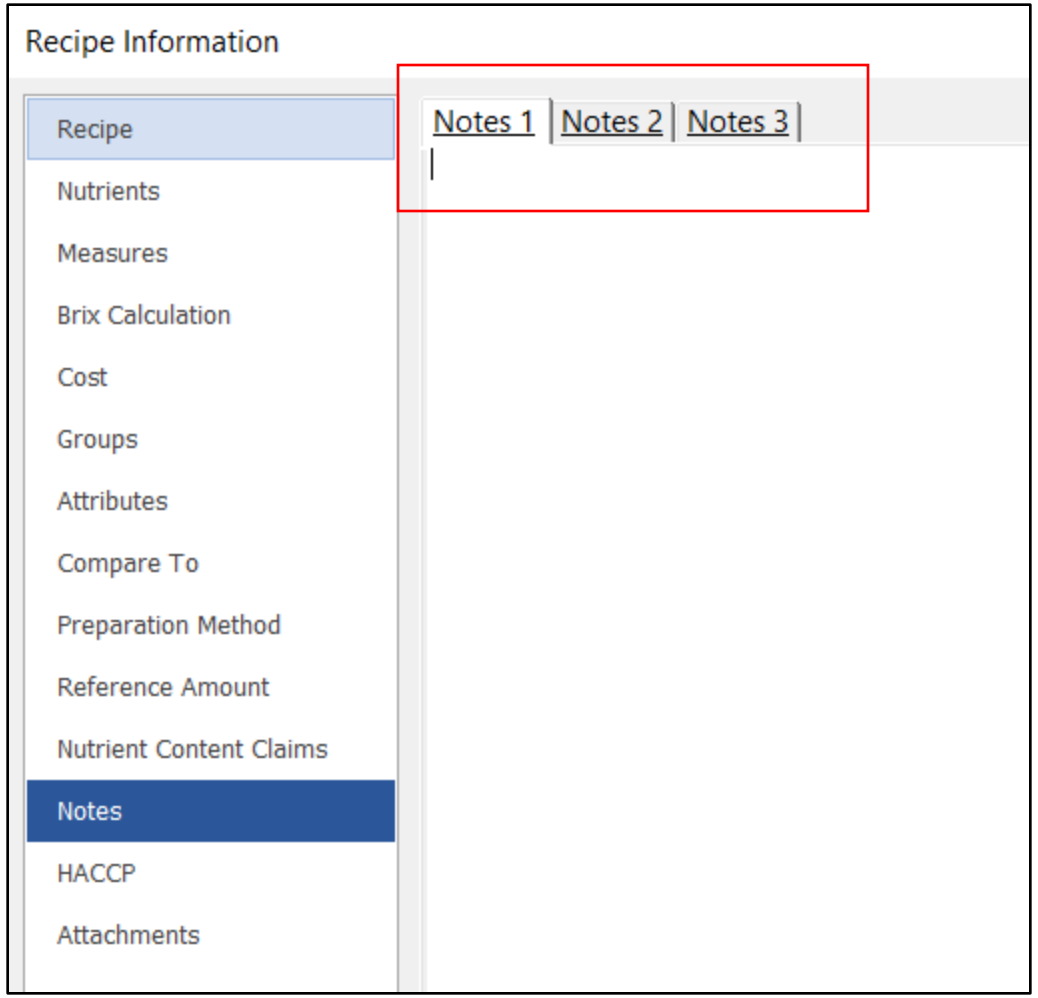
Notes Fields

- Use the Notes fields in Ingredient records and in Recipes to document supporting information
- Notes titles can be renamed as needed to help sort the type of information recorded



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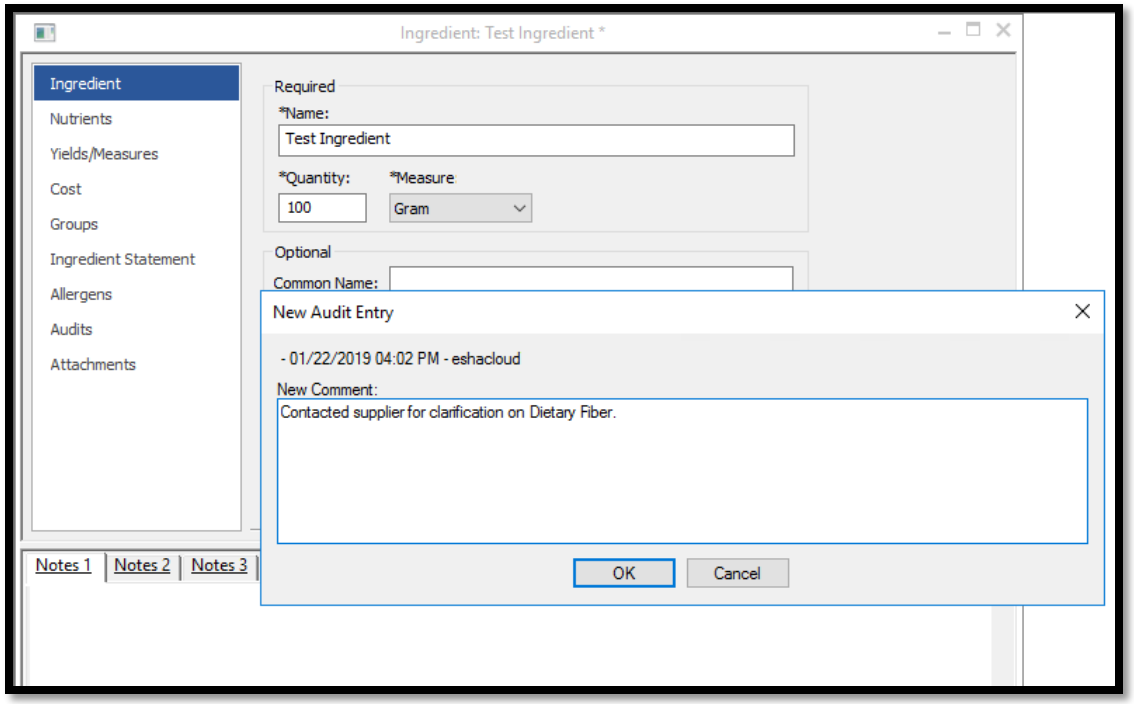
Audit Trail

- 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



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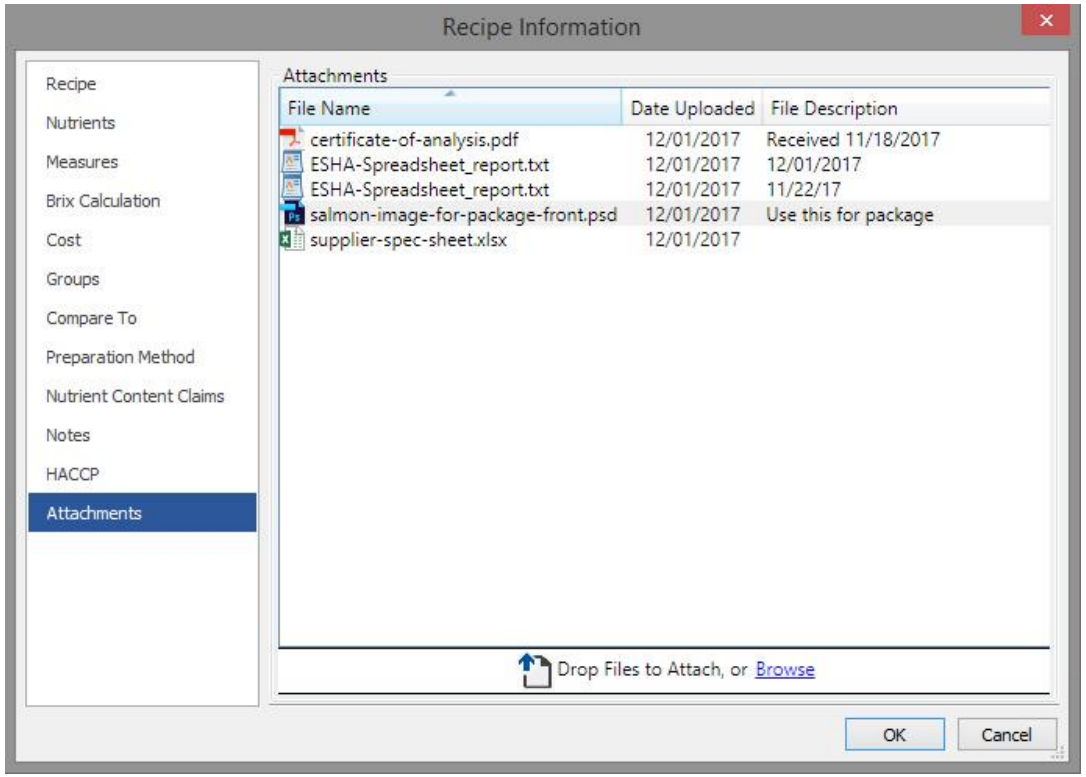
Record-Keeping - Attachments

- Attach files to Ingredient records, Recipes, and Advanced Labels for documentation purposes
- Various file types can be attached to a record including PDF, JPG, CSV, MP4, and more



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View Documents

- Review the reports available in Genesis R&D and use those that work best for you.
- Use the export functions to send data where it is needed.

Report Examples Shown

- Multicolumn
- Spec Sheet 100g
- Single Nutrient

Multi Column: Bread

Nutrients	Per Serving	Per 100g	Rcmd
Basic Components			
Calories (kcal)	93.18	216.70	
Calories from SatFat (kcal)	4.64	10.79	
Fat (g)	1.01	2.35	65.00
Saturated Fat (g)	0.52	1.20	20.00
Trans Fatty Acid (g)	0.03	0.07	20.00
Poly Fat (g)	0.12	0.27	
Mono Fat (g)	0.26	0.61	
Cholesterol (mg)	0.50	1.16	300.00
Carbohydrates (g)	18.34	42.65	300.00
Dietary Fiber (2016) (g)	0.70	1.63	
Soluble Fiber (2016) (g)	0.22	0.51	
Insoluble Fiber (2016) (g)	0.36		
Total Sugars (g)	1.95		
Added Sugar (g)	1.89		
Protein (g)	2.40		
Vitamins			
Vitamin D - mcg (mcg)	0		
Vitamin A - RAE (mcg)	6.50		
Vitamin C (mg)	0.00		
Vitamin E - Alpha-Toco (mg)	0.07		

Bread *

ESHA Research, Inc.

Date: 2022.12.08

Nutrients Per: 100 gram

Measure:

1 Serving = 43 g,1 Slice = 43 g

Nutrient	Amount	Unit	Nutrient	Amount	Unit
Gram Weight	100.00	g	Total Sugars	4.53	g
Water	49.09	g	Added Sugar	4.39	g
Calories	216.70	kcal	Protein	5.58	g
Fat	2.35	g	Vitamin D - mcg	0	mcg
Saturated Fat	1.20	g	Sodium	511.63	mg
Trans Fatty Acid	0.07	g	Calcium	8.34	mg
Cholesterol	1.16	mg	Iron	2.32	mg
Carbohydrates	42.65	g	Potassium	64.13	mg
Dietary Fiber (2016)	1.63	g			

Ingredient Statement:

INGREDIENTS: Water, All Purpose Unbleached Flour (Wheat Flour, Malted Barley Flour, Niacin (Vitamin B3), Iron, Thiamin (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Sugar, Butter (Sweet Cream, Natural Flavor), Yeast, Salt.

Allergen Statement:

Contains Milk, Wheat

Signature:

Signature Date:

Single Nutrient: Bread

Item Name	Quantity	Measure	Fat (g)	Percent
Butter	0.001859	Pound	0.68	75.83%
Flour, All Purpose	0.041823	Pound	0.19	20.61%
Yeast	0.000929	Pound	0.03	3.56%
Water	0.046442	Pound	0	0%
Sugar	0.003718	Pound	0	0%
Salt	0.000028	Pound	0	0%
Bread Total (Recipe Yield Adjustments are not applied)			0.90	

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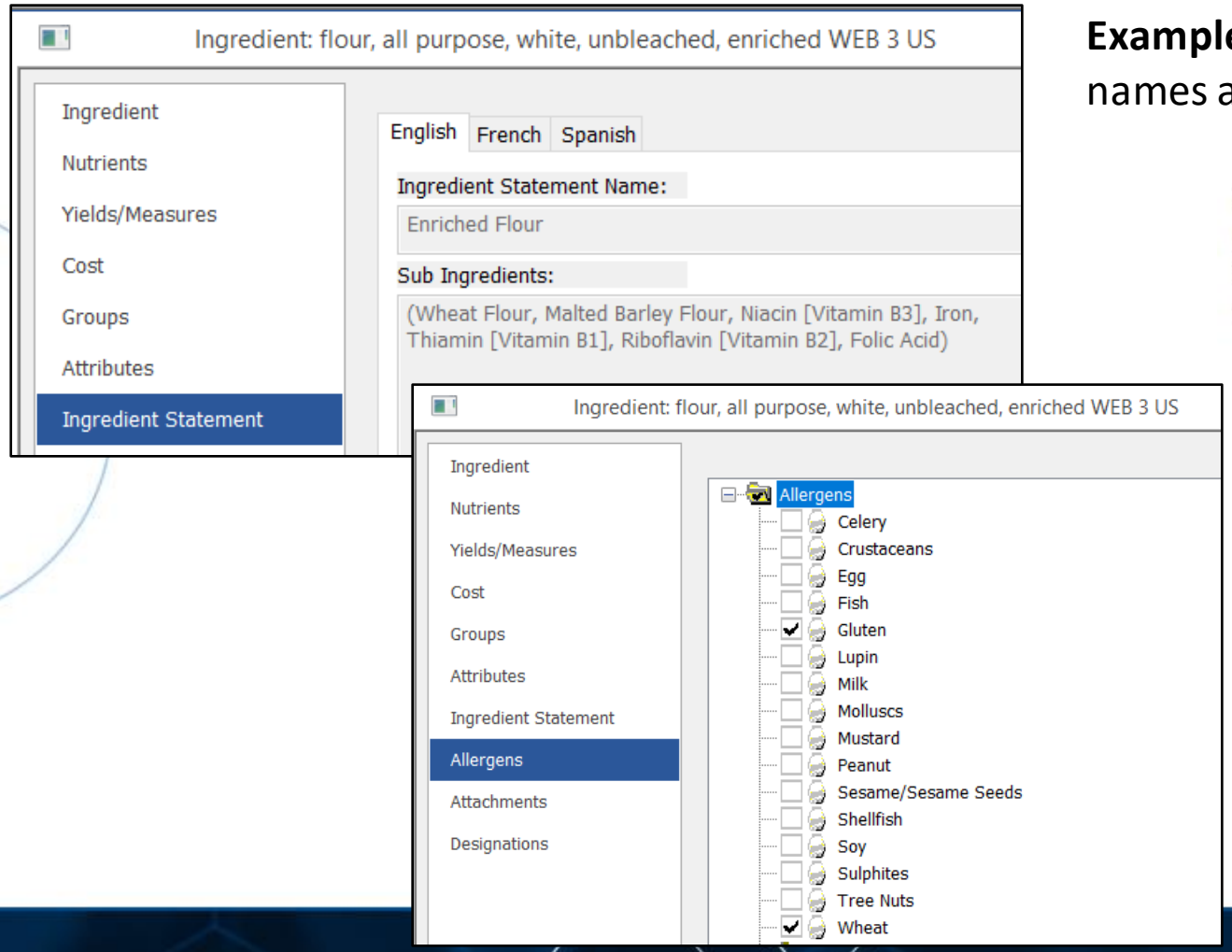
Ingredient Statements & Allergens



Example: Wheat Ingredient with correct names and allergens used in Bread Recipe

Ingredient Statement:

INGREDIENTS: Water, All Purpose Unbleached Flour (Wheat Flour, Malted Barley Flour, Niacin (Vitamin B3), Iron, Thiamin (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Sugar, Butter (Sweet Cream, Natural Flavor), Yeast, Salt.

Allergen Statement:

Contains Milk, Wheat.

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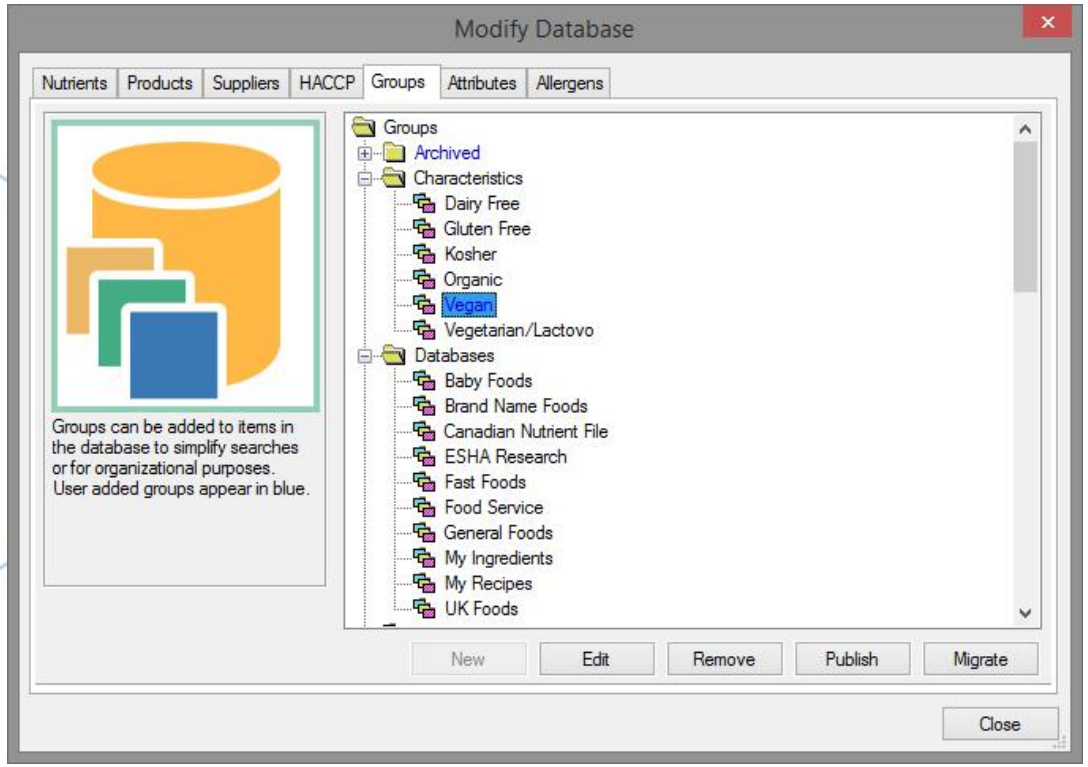
Groups



- Organizing records
- Searching (include/exclude)
- Exporting
  - Which version of records to share or publish
  - ESHA Port
  - Genesis R&D API
- Access Control
  - ESHA Security
  - Levels of read/write access

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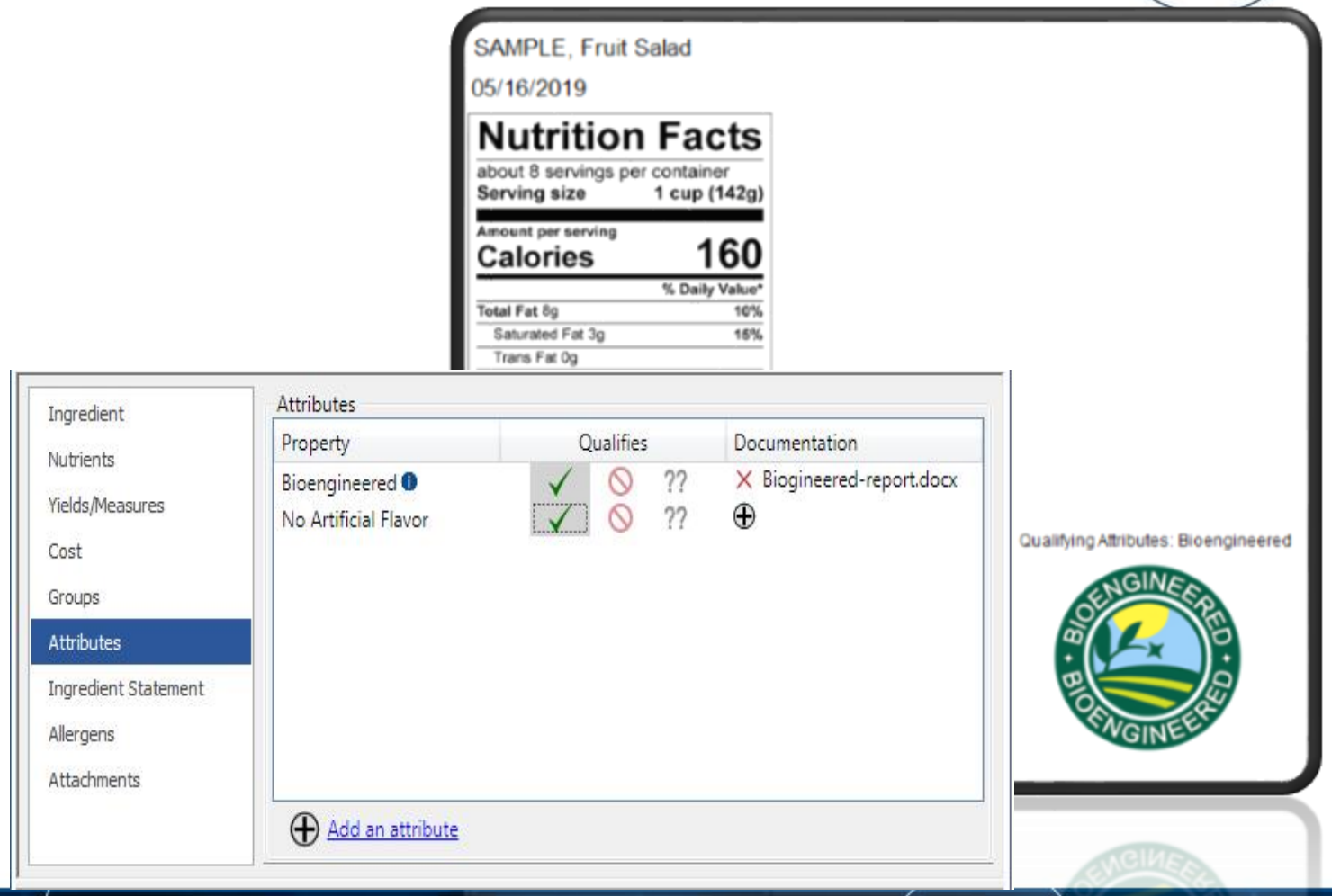
Attributes

- Document properties or characteristics
- Attach documentation to support the Attribute
- Ingredient Attributes carry forward to Recipes
- Qualifying Attributes appear on the View Label report



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Nutrition Facts Compliance Cheat Sheet

- Have a methodical process to address all aspects of labeling
- ESHA Cheat Sheet provides an example of points to review

cheat sheet

NUTRITION FACTS LABEL COMPLIANCE CHECKLIST

noun | lab•el com·pli·ance check•list | \ˈlā-bəl kəm-ˈplī-ən(t)s ˈchek-ˌlist\

: a checklist to help you made sure your labels comply with current regulations

checklist items

REVIEW YOUR NUTRIENT DATA

- ☐ Determine a regular schedule for requesting spec sheets from your suppliers and update any ingredient data that has changed.
- ☐ Review nutrient information. Check your inputs using the Genesis R&D Foods Spreadsheet report. Review each nutrient to make sure all data is reasonable and there are no glaring mistakes or missing mandatory nutrients.
- ☐ Review Added Sugars and Total Sugars definitions and label requirements. Update Added Sugars label amounts and %DVs to reflect the latest regulations.
- ☐ Double-check the nutrient information for Dietary Fiber. Make sure you are using only dietary fibers that are considered beneficial to calcaulte total Dietry Fiber for your label. https://www.esha.com/dietary-fiber-nutrition-facts-label/.
- ☐ Make sure you are using the correct nutrient values and units of measure. Nutrients are occasionally updated with new units. Use the Calculate Nutrients feature in Genesis R&D to double-check that your values and units of measure are correct.

REVIEW YOUR INGREDIENT LIST AND ALLERGEN STATEMENT

- ☐ Review your ingredient list. Make sure all ingredients appear in their common/usual names. List any chemical preservatives by their common names and specify their functions.
- ☐ Double- and triple-check your allergen statement. Allergens are one of the top reasons a for a product recall. Review each ingredi-ent for the presence of allergens (milk, wheat, sesame, tree nuts, soy, fish, shellfish, and peanuts).
- ☐ Verify sulfite content in your ingredients. The presence of sulfites must be declared on your food packaging.

NUTRITION FACTS LABEL FORMAT AND NUTRIENT CONTENT CLAIMS

- ☐ Determine Serving Size and Servings Per Container. Use the FDA's guide for Recommended Amounts Customarily Consumed (RACC) at http://bit.ly/2ssM1aw to find the appropriate serving size for one serving of your food item. Use this serving size to then calculate how many servings are in one container.
- ☐ Review label layout specifications. Make sure the label sizes, layouts, fonts, and placement are correctly communicated to your design team.
- ☐ Check to see if your package size requires Dual Column labeling. If your food requires further preparation or is in a container that holds between 2 and 3 servings, you may need to use a Dual Column label.
- ☐ Verify that your Nutrient Content Claims are valid. Your claims should reflect the latest %DVs and the latest established RACC values. Genesis R&D can help you determine what claims your food is eligible for.

KEY REMINDERS

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Genesis R&D Training

Session Options:

- Professional
- Advanced (***Prerequisite**: Professional Training)*
- Combined Professional and Advanced

Location Options:

- ESHA Training Center (Oak Brook, IL)
- Online

Location	Dates	Course
ESHA Training Center	Mar. 15-16, 2022 Mar. 17, 2022	2-Day Genesis R&D Foods Professional 1-Day Genesis R&D Foods Advanced
Online	Mar. 14-17, 2022 Mar. 22-23, 2022	4-Day Genesis R&D Foods Professional 2-Day Genesis R&D Foods Advanced
Online	Apr. 11-14, 2022 Apr. 19-20, 2022	4-Day Genesis R&D Foods Professional 2-Day Genesis R&D Foods Advanced

Genesis R&D Foods Professional
This training session covers the fundamentals of the Genesis R&D Food program with a primary focus on FDA regulations: creating ingredients and composite ingredients, building recipes/formulas, nutrition analysis, moisture loss, reporting, labeling, best practices, and much more. In addition, this session covers a comprehensive regulatory review.

Genesis R&D Foods Advanced Training
The Advanced session builds upon the skills learned in the Professional training and offers deeper learning on topics including PDCAAS, International Food Labeling, Advanced Label Settings, and more.

Learn More:

- Visit www.esha.com for the full list of upcoming classes.
- Does your organization need group training? Contact training@esha.com

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QUESTIONS?

CONTACT US

Phone: 503-585-6242

Sales: sales@esha.com

Support: support@esha.com

Consulting Services: cs@esha.com

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