Converting Your Labels from 2003 to 2016 Health Canada Regulations

Presented by ESHA Research

Wednesday, July 11, 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

Genesis R&D Foods 11.6 Overview
Genesis R&D Foods Version 11.6 includes updates to nutrient names, the option to alphabetize the nutrient entry list, and the ability to include the Added Sugars Symbol on a Nutrition Facts Label. During this 30-minute webinar, we will cover all of these new features in detail.

Creating Health Canada Dual Format Nutrition Facts Tables with Genesis R&D
During this webinar, we will discuss the Health Canada regulations and requirements for packages that require Dual Format Labels. Additionally, we will demonstrate how to create a Dual Format Label for Different Amounts of Food, from a single recipe in the Genesis R&D Food Labeling software.

Best Practices for Creating and Managing Nutrition Labels for Multiple Countries
There are many aspects to consider when creating products that will be sold and distributed in multiple regions or countries. During this 45-minute webinar, we will cover considerations and best practices for creating and managing recipes and nutrition labels for multiple countries.

To view the schedule, 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
Today’s Agenda

• During this 60 minute webinar we will cover:
  • Overview of What’s Happened
    • Timeline for Compliance
    • New Label Format
    • Nutrient Changes
    • Ingredient List Changes
  • Updates in Genesis R&D
  • Best practices for making the transition
Access the Canadian Labeling Module in Genesis R&D:
Available labeling regulation modules are displayed in the Edit Label settings.

Click on the About button to check your version number.
Timeline for Compliance

On December 14, 2016, Government of Canada finalized changes to the Nutrition Facts tables and list of ingredients for packaged foods.

• Manufacturers have a five-year compliance period, which started Dec. 14, 2016, and during that time both pre-existing and new Nutrition Facts tables will be seen on grocery store shelves.  
• The compliance date for the updated Nutrition Facts table is December 14, 2021.

ARE YOU READY?
Note: Both the pre-existing and new label formats will be available in Genesis R&D as we transition through effective and compliance date timelines.

The format options include the appropriate regulations for each.
Key Changes

1. More prominent display of serving size and Calories
2. Modified serving-size definitions
3. %DV no longer listed for Carbohydrates
4. Percent daily value for total sugars
5. Updated list of core label nutrients and quantitative amounts reported
6. A new footnote that explains how to use the % DV
7. Improved legibility for list of ingredients and allergen information
8. Grouping of sugar-based ingredients in the list of ingredients
New Footnote

• The new footnote at the bottom of the table will easily summarize the % DV numbers as such:
  • 5% or less is a little
  • 15% or more is a lot
  • This is intended to help consumers understand how much sugar, sodium, and other nutrients are in foods.
Updates in Genesis R&D

• Label Formats
• Standard, Tabular, and Linear
• Simplified Standard, Tabular, and Linear
• Dual Format - Foods requiring preparation
• Aggregate Format - Different kinds of foods
• Aggregate Format - Different amounts of food
• AND MORE!
Nutrient Changes

Potassium
• New Core Nutrient
• 4700 mg (up from 3500 mg)

Vitamin C
• Changed to Additional Label Nutrient
• 90 mg (up from 60 mg)

Folate
• Additional Nutrient
• 400 mcg DFE (up from 220 mcg)
Nutrient Changes

Vitamin A
• Change to Additional Label Nutrient
• 900 mcg RAE (change from 1000 RE)

Sodium
• Core Label Nutrient
• 2300 mg (down from 2400 mg)

Sugar
• Core Label Nutrient
• Newly Established DV of 100 g

Choline
• New Additional Label Nutrient
• DV of 550 mg
Daily Value Changes - Potassium

2003 Label
DV = 3500 mg
1750 mg = 50% DV

2016 Label
DV = 4700 mg
1750 mg = 37% DV
Nutrient Unit Changes

Vitamin A (additional nutrient - previously core)
• Change from Retinol Equivalents (RE) to mcg Retinol Activity Equivalents (RAE)

Folate (additional nutrient)
• Change from mcg to mcg Dietary Folate Equivalents (DFE)
Vitamin A: Nutrient Conversion Calculations

Total µg RAE = µg retinol + (µg beta carotene / 12)

**Vit. A**

2003 (RE) → 2016 (µg RAE)

**CALCULATIONS**

- **ANIMAL BASED & ALL-TRANS RETINOL**
  - µg RE = µg RAE

- **PLANT BASED**
  - µg RE / 2 = µg RAE

- **BETA CAROTENE BASED**
  - µg / 12 = µg RAE

- IU from Retinol Source / 3.33 = µg RAE

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Value</th>
<th>% DV*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A - IU (IU)</td>
<td>333.000</td>
<td></td>
</tr>
<tr>
<td>Vitamin A - RAE (mcg)</td>
<td>100.000</td>
<td>11.111</td>
</tr>
<tr>
<td>Vitamin A - RE (mcg)</td>
<td>100.000</td>
<td></td>
</tr>
<tr>
<td>Carotenoid RE (mcg)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Retinol RE (mcg)</td>
<td>100.000</td>
<td></td>
</tr>
</tbody>
</table>

 Populate the correct fields in Genesis R&D to report the proper information on your labels

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Folate: Nutrient Conversion Calculations

Populate the correct fields in Genesis R&D to report the proper information on your labels.

- **Folate 2003 (µg)**
- **2016 (µg DFE)**

**Calculations**

- **NATURAL (food)**
  \[ \text{mcg Folate} = \text{mcg DFE} \]
  (no calculation needed; units are equivalent)

- **SYNTHETIC (supplement)**
  \[ \text{mcg Folic Acid} \times 1.7 = \text{mcg Folate} \]
  (multiply the mcg by 1.7)

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folate (mcg)</td>
<td>160.000</td>
</tr>
<tr>
<td>Folic Acid (mcg)</td>
<td>140.000</td>
</tr>
<tr>
<td>Folate, DFE (mcg DFE)</td>
<td>258.000</td>
</tr>
<tr>
<td>Folate, food (mcg)</td>
<td>20.000</td>
</tr>
</tbody>
</table>
Nutrient Calculator
Assists in Calculating the Following Nutrients:

- Carbohydrates
- New U.S. Dietary Fiber Fields
- Vitamin A
- Vitamin B3
- Niacin Equivalents
- Tryptophan
- Vitamin D
- Vitamin E
- Folate/Folic Acid
Updated Serving Sizes

• Serving sizes have been modified to be more consistent and list realistic measures.

• With this change, Canadians can more easily compare similar foods and understand how many calories (and nutrients) they are consuming.
Single Serving Containers

For packages containing up to 200% of Reference Amount, the serving size should be the whole container.

Example: Reference Amount for Milk is 250 mL (1 Cup)
• Original Serving Size: Per 1 Cup (250 mL)
• New Serving Size: Per 1 carton (473 mL)
Single Serving Containers with 200% or More

“If a package doesn't contain less than 200% of the reference amount, determine if it can be reasonably consumed by one person at a single eating occasion. If yes, then it is a single-serving prepackaged product.”

Example: 100 g, individually wrapped, prepackaged cookie
- Reference amount (RA) for cookies = 30 g
  
  Per Table of Reference Amounts for Food; Bakery Products

- Package contains more than 200% of the 30 g RA, but it’s not expected that the cookie would be partially consumed, re-wrapped, and saved for later.

- This 100 g cookie can be reasonably consumed during a single eating occasion and is labeled as a single-serving product.
Nutrient Content Claims

Changes to %DV may affect the qualifications of claims!

![Nutrient Content Claims](image)

**High Fibre**

[Image of high fibre badge]
Reference Amount

Nutrient Content Claims are based on a reference amount from the *Table of Reference Amounts for Food*

- The serving size is not always the same as the reference amount
- You can set a reference amount that is different from your serving size in order to view your eligible claims
List of Ingredients

• In descending order by weight

• Mostly lower case text, using upper case when:
  • First letter of each ingredient or, in the case of a food additive shown in whole
    or in part by an acronym, the entire acronym
  • The alpha-descriptor that forms a part of the common name for a food
    additive, vitamin or micro-organism

• Separated by bullet points or commas
Sugar Defined

Ingredients designated as sugars include

• Mono- and di-saccharides:
  • White sugar, cane sugar, beet sugar, raw sugar
  • Fructose, glucose, glucose-fructose (also known as high fructose corn syrup), maltose, sucrose, dextrose

• Sweetening agents
  • Brown sugar, agave syrup, honey, maple syrup, fancy molasses, other syrups

• Functional substitutes for a sweetening agent
  • Fruit juice concentrates and puree concentrates that are added to replace sugars in foods
  • Replaces a sweetening agent and has one or more functions of the sweetening agent include sweetening, thickening, texturing, or caramelizing
Sugars in the List of Ingredients

- Sugar-based ingredients are to be grouped within the list of ingredients to provide the relative proportion of such ingredients.
- Sugar-based ingredients are to be listed in descending order by weight, placed in parenthesis after the name Sugars/Sucre.
- Sugar-based ingredients are entirely in lower case letters.
- Separated by commas (not bullets)
Sugars Not Grouped

- Sugar alcohols and other non-nutritive sweeteners
- Fruit and vegetable juices reconstituted to regular strength and have no sweetening agents added
- The only sugar-based ingredient in a product and “sugar” is in the ingredient name, like “brown sugar”
- Sugar-based ingredients present within another ingredient in the packaged food
  - Sugar in chocolate chips in a chocolate chip cookie:

**Ingredients:** Sugars (brown sugar, sugar) • Flour • Chocolate chips [unsweetened chocolate, Sugars (sugar, dextrose)] • soy lecithin • artificial flavour] • Butter • Dried whole egg • Sodium bicarbonate • Vanilla extract • Salt
Updates to Genesis R&D
Documentation

• Document how you arrived at your nutritional information
• Attach document files to your recipes and ingredients in Genesis R&D
• Documentation examples:
  • Supplier spec and data sheets
  • Analyses from nutrient databases
  • Recipes or formulations
  • Batch records
  • Any other records that contain required and supporting information
  • Notes fields in Genesis
  • Audit trail feature in Genesis
### Fill in Missing Data

#### Nutrition Facts
**Valeur nutritive**

<table>
<thead>
<tr>
<th>Per 1 muffin (113 g)</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount</strong></td>
<td>% valeur quotidienne</td>
</tr>
<tr>
<td><strong>Calories</strong> 380</td>
<td><strong>% Daily Value</strong></td>
</tr>
<tr>
<td>Fat / Lipides 18 g</td>
<td>28 %</td>
</tr>
<tr>
<td>Saturated / saturés 1.5 g</td>
<td>8 %</td>
</tr>
<tr>
<td>+ Trans / trans 0 g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol / Cholestérol 40 mg</td>
<td></td>
</tr>
<tr>
<td>Sodium / Sodium 400 mg</td>
<td>17 %</td>
</tr>
<tr>
<td>Carbohydrate / Glucides 52 g</td>
<td>17 %</td>
</tr>
<tr>
<td>Fibre / Fibres 2 g</td>
<td>8 %</td>
</tr>
<tr>
<td>Sugars / Sucres 32 g</td>
<td></td>
</tr>
<tr>
<td>Protein / Protéines 4 g</td>
<td>4 %</td>
</tr>
<tr>
<td>Vitamin A / Vitamine A</td>
<td>100 %</td>
</tr>
<tr>
<td>Vitamin C / Vitamine C</td>
<td>8 %</td>
</tr>
<tr>
<td>Calcium / Calcium</td>
<td>2 %</td>
</tr>
<tr>
<td>Iron / Fer</td>
<td>10 %</td>
</tr>
</tbody>
</table>

**Potassium is a Core Nutrient:**
displayed here with a dashed line due to missing data = NOT COMPLIANT

**If you have several ingredients that contain Vitamin A, but you have not populated the RAE field, the value will be missing or under-declared.**
### Spreadsheet Report

**Search for Missing Values/Documentation**

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Quantity</th>
<th>Measure</th>
<th>Cals (kcal)</th>
<th>Fat (g)</th>
<th>SatFat (g)</th>
<th>TransFat (g)</th>
<th>Carb (g)</th>
<th>TotalFib (g)</th>
<th>Sugar (g)</th>
<th>Prot (g)</th>
<th>Chol (mg)</th>
<th>Sod (mg)</th>
<th>Pot (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread - Canada</td>
<td>1 Serving</td>
<td></td>
<td>130.93</td>
<td>0.41</td>
<td>0.08</td>
<td>0</td>
<td>27.77</td>
<td>1.08</td>
<td>3.73</td>
<td>3.63</td>
<td>0.15</td>
<td>2.00</td>
<td>1750.00</td>
</tr>
<tr>
<td>flour, all purpose, white, unbleached, enriched</td>
<td>0.068608 Pound</td>
<td></td>
<td>113.26</td>
<td>0.30</td>
<td>0.05</td>
<td>0</td>
<td>23.75</td>
<td>0.84</td>
<td>0.06</td>
<td>3.21</td>
<td>0.62</td>
<td>33.30</td>
<td></td>
</tr>
<tr>
<td>water, distilled</td>
<td>0.117613 Pound</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>yeast, bakers, active, dry</td>
<td>0.00196 Pound</td>
<td></td>
<td>2.89</td>
<td>0.07</td>
<td>0.01</td>
<td>0</td>
<td>0.37</td>
<td>0.24</td>
<td>0</td>
<td>0.36</td>
<td>0.45</td>
<td>0.49</td>
<td></td>
</tr>
<tr>
<td>sugar, white, granulated</td>
<td>0.007865 Pound</td>
<td></td>
<td>13.81</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.57</td>
<td>0</td>
<td>3.66</td>
<td>0</td>
<td>0.04</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>milk, 2%, with vitamins A &amp; D missing</td>
<td>0.059011 Fluid ounce</td>
<td></td>
<td>0.96</td>
<td>0.04</td>
<td>0.02</td>
<td>--</td>
<td>0.09</td>
<td>0</td>
<td>0.08</td>
<td>0.06</td>
<td>0.15</td>
<td>0.39</td>
<td></td>
</tr>
</tbody>
</table>

**Moisture Adjustment:** 0.03 Pound

**Total**

|             | 1 Serving |               | 130.93      | 0.41    | 0.08       | 0            | 27.77    | 1.08         | 3.73      | 3.63    | 0.15      | 2.00    | 1750.00 |

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Best Practices for Transition to 2016 Label

- Did formulas or ingredients change?
- Did the reference serving size change?
- Does your product qualify to be labeled as one serving based on 200% of the reference?
- Are your nutrient content claims supported by your 2016 labels?
- Use Spreadsheet report – find and populate missing nutrient values
- Use the Nutrient Calculator to help convert nutrients
- Contact suppliers for updated information that supports 2016 labels
- Update lists of ingredients and update allergens
Resources

Health Canada

Canadian Food Inspection Agency (CFIA)
• Steps for Choosing a Nutrition Facts Table
• Industry Labeling Tool (ILT)
  • Quick references and interpretations
  • Evolving as policy is updated

Acts and Regulatory
• Food and Drug Regulations (FDR)
• Food and Drugs Act (FDA)
• Consumer Packaging and Labelling Act (CPLA)
Genesis R&D Training

Genesis Professional Training | July 19-20, 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 Training | August 8-9, 2018 | Orlando, FL
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.

Advanced Genesis Workshop | August 15-16, 2018 | Oak Brook, IL
This workshop session covers advanced topics in detail such as new FDA labeling regulations, due diligence and documentation for transitioning to the new labels, new program features, PDCAAS (protein digestibility score), range formulas, advanced labels, and more.

Genesis Professional + Menu Label Training | Sept 12-13, 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/
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