

# ***Sugar claims on foods: health professionals' understanding compared to marketplace practice***

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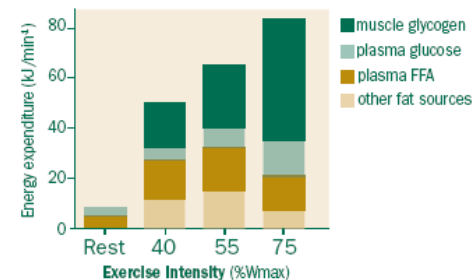
*Friday June 14, 2013*



# Canadian Sugar Institute Nutrition Information Service

- Inform and educate Canadians about sugars and healthy eating and advocate for science-based nutrition policies
- **Staffed by nutrition professionals:**
  - Sandra Marsden, MHSc, RD, President
  - Tristin Brisbois, PhD, Manager Nutrition & Scientific Affairs
  - Chiara DiAngelo, MPH, RD, Coordinator Nutrition Communications
- **Guided by Scientific Advisory Council:**
  - G. Harvey Anderson, PhD, University of Toronto
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  - Joanne Slavin, PhD, RD, University of Minnesota

**Figure 1.** Fuel selection during exercise of varying exercise intensities (van Loon et al, 2001 (3)).

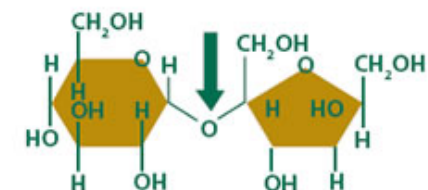


FFA = free fatty acids; Wmax = percent of maximal power output attained in Watts; Other fat sources represents predominately intramuscular fat.

**Figure 1:** Photosynthesis: How plants make sugar (sucrose)



**Figure 2:** Sucrose molecule. Glucose molecule (left) is linked together to fructose molecule (right) by a glycosidic bond (arrow).



# Background

- Nutrient content claims are meant to help consumers make informed dietary choices.
- For food and beverages bearing a sugar claim, comparative reductions in carbohydrates and calories are required for changes to have nutritional significance.
  - All carbohydrates (including naturally occurring and added sugars) contribute 4kcal/g.
- Sugar claims may not be useful if:
  - Consumer expectations are not met (*e.g. “no added sugar” does not mean “no sugar”*);
  - Benefits are misinterpreted (*e.g. for people with diabetes*);
  - Products do not comply with Canadian Food Inspection Agency (CFIA) criteria.

Nutrition Facts		
Valeur nutritive		
Per 1 bowl (300 g) / Pour 1 bol (300 g)		
Amount		% Daily Value
Teneur		% valeur quotidienne
<b>Calories / Calories</b> 440		
<b>Fat / Lipides</b> 19 g		<b>29 %</b>
Saturated / Saturés 4 g		<b>21 %</b>
+ Trans / Trans 0.2 g		
<b>Cholesterol / Cholestérol</b> 35 mg		
<b>Sodium / Sodium</b> 860 mg		<b>36 %</b>
<b>Carbohydrate / Glucides</b> 53 g		<b>18 %</b>
Fibre / Fibres 4 g		<b>16 %</b>
Sugars / Sucres 6 g		
<b>Protein / Protéines</b> 15 g		
Vitamin A / Vitamine A		45 %
Vitamin C / Vitamine C		4 %
Calcium / Calcium		20 %
Iron / Fer		20 %





# Sugars Terminology (Canada)

Terminology	
<b>Sugar</b>	Sucrose (from sugar cane or sugar beets). Canadian food standards specify that sugar must have a minimum purity of 99.8 % sucrose.
<b>Added Sugars</b>	All sugars added to foods, including sugar and sugar syrups, honey, maple syrup, and corn sweeteners (high fructose corn syrup (“glucose-fructose”), glucose syrup, and dextrose).
<b>Total Sugars</b>	All monosaccharides (glucose, fructose, galactose) and disaccharides (sucrose, lactose, maltose) occurring in foods (e.g., milk, fruit and vegetables) or added to foods (see “added sugars”).



# Canadian Food Inspection Agency (CFIA)

## compositional criteria for sugar claims on foods

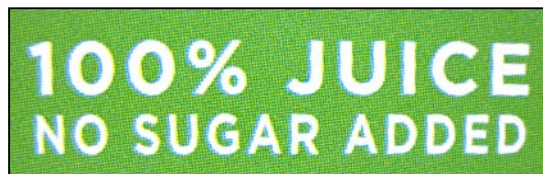
Claim	Conditions – Food
<b>Reduced in sugar(s)</b> “reduced in sugar”; “sugar-reduced”	<ul style="list-style-type: none"><li>• Food is <u>modified</u> so it contains at least 25% less sugars, totalling at least 5g less per reference amount compared to similar reference food*.</li></ul>
<b>Lower in sugar(s)</b> “less sugar”; “lower sugar”	<ul style="list-style-type: none"><li>• Food contains at least 25% less sugars, totalling at least 5g less per reference amount compared to similar reference food.</li></ul>
<b>No added sugar(s)</b> “no added sugar”; “without added sugar”	<ul style="list-style-type: none"><li>• Food contains no added sugars, ingredients containing added sugars, or ingredients that functionally substitute for added sugars.</li><li>• Sugars content is not increased through some other means.</li><li>• Similar reference food contains added sugars.</li></ul>
<b>Unsweetened</b>	<ul style="list-style-type: none"><li>• Food meets conditions for “no added sugars” and does not contain non-caloric sweeteners.</li></ul>

\* “**Similar reference food**” means a food of the same type as the food to which it is compared and that has not been processed, formulated, reformulated or otherwise modified in a manner that increases or decreases either the energy value, or the amount of a nutrient that is the subject of the comparison.

Reference: CFIA 2013. <http://www.inspection.gc.ca/english/fssa/labeti/guide/ch7be.shtml>

# Objectives

1. To assess health professionals' understanding of sugar claims (“reduced in sugar”, “no sugar added”, “unsweetened”);
2. To compare calories, carbohydrates, and sugars content between claim and reference products in the market place; and
3. To determine the level of compliance with CFIA criteria among sugar claim products.



# Methods

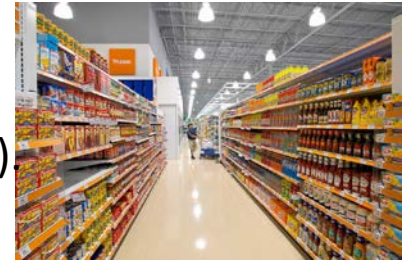
## 1. Survey of Health Professionals

- Voluntary questionnaires completed at two National conferences
- Surveys assessed understanding and expectations of sugar claims.



## 2. Marketplace Research

- Four Toronto grocery stores were surveyed (June-August 2012)
- Information on sugars, calories, and carbohydrates were collected for both claim and reference products; and reductions in sugars, calories and carbohydrate were calculated.
- Products were assessed for compliance with CFIA criteria.



- **Microsoft Office Excel 2007 was used to conduct all analyses.**



# Health Professionals' Expectations and Understanding of Sugar Claims on Foods and Beverages

- Questionnaires were completed by 442 respondents: dietitians (43%); nurses (22%); other health professionals (29%).

## ***“Reduced in Sugar” claims:***

- 2/3 of respondents expected calories to be reduced along with sugars;
- 1/3 expected calories to be reduced by 25%.

## ***“No Added Sugar” claims:***

- 43% of respondents expected calories to be reduced;
- 57% incorrectly thought concentrated fruit juice could be added as a sweetener;
- <15% knew naturally-occurring sugars could be present.

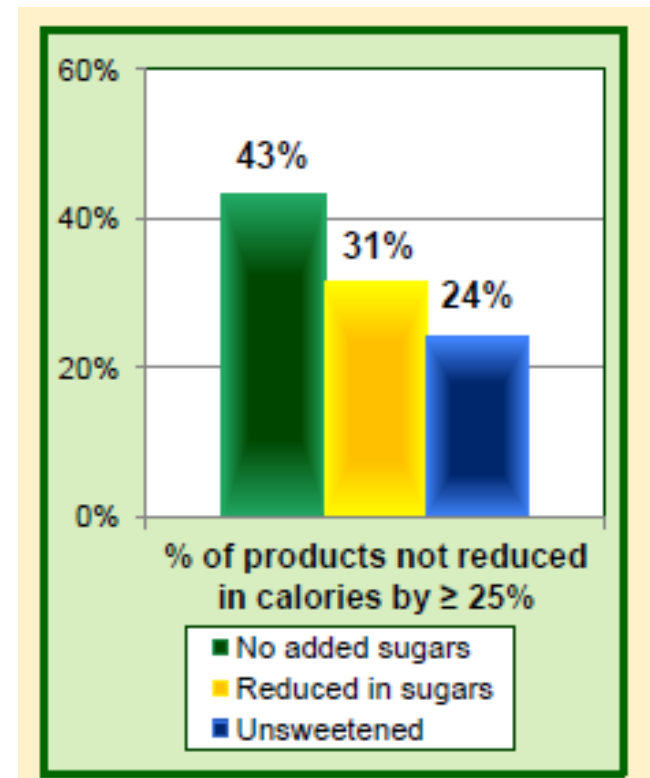


# Sugar Claims on Foods Do Not Meet Health Professionals' Expectations

## Sugar Claim Products in the Marketplace:

- 402 products had a sugar claim.
- 38% of products were not reduced in calories by  $\geq 25\%$  as expected by health professionals:
  - 15% of products were higher in **calories**;
  - 18% were higher in **carbohydrates**; and
  - 6% were higher in **sugars** compared to reference products.

Figure 1: Percent of food products bearing sugar claims that did not have a 25% reduction in calories.



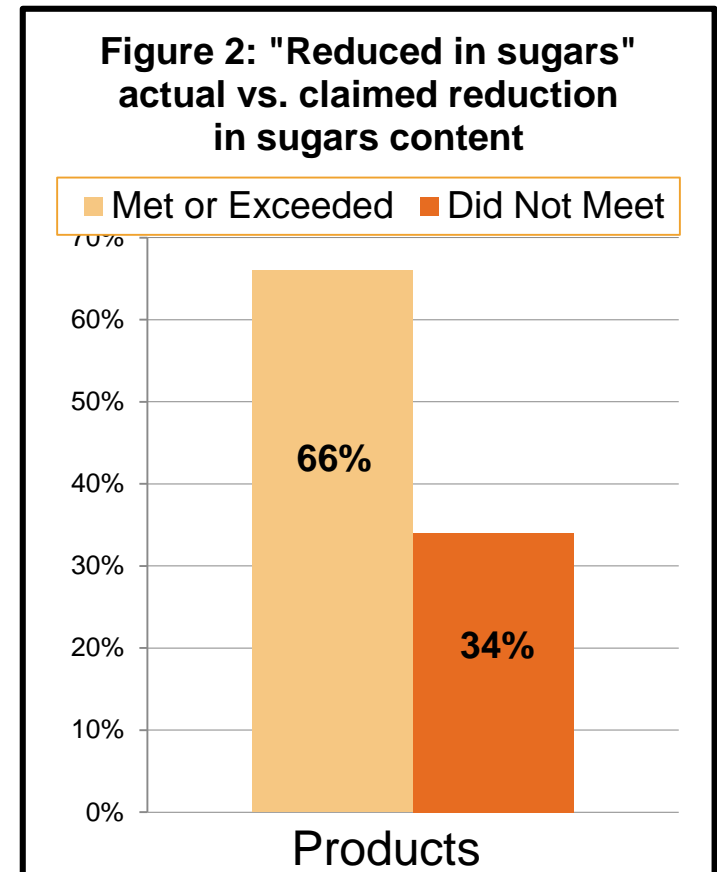
# Sugar Claims in the Marketplace in Comparison to CFIA Guidelines

## ***REDUCED SUGAR CLAIMS***

***% sugar reduction***



- One-third of “reduced in sugar” products did not meet the % sugar reduction claimed on the package.



# Sugar Claims in the Marketplace in Comparison to CFIA Guidelines

## ***SUGAR CLAIMS***

### ***Compliance with CFIA criteria***

- <40% of products complied with CFIA criteria:
  - Absence of an appropriate reference product (n=141);
  - Incorrect use of concentrated fruit juice as a sweetener in “no sugar added” products (n=99).

#### **Ingredients**

FRUIT (RASPBERRIES, STRAWBERRIES, BLACKBERRIES), CONCENTRATED FRUIT JUICES (WHITE GRAPE AND/OR APPLE AND/OR PINEAPPLE), WATER, FRUIT PECTIN, LOCUST BEAN GUM AND/OR GUAR GUM, CITRIC ACID, NATURAL FLAVOUR, SUCRALOSE, SODIUM BENZOATE, COLOUR. SUCRALOSE 5mg PER 15mL SERVING.

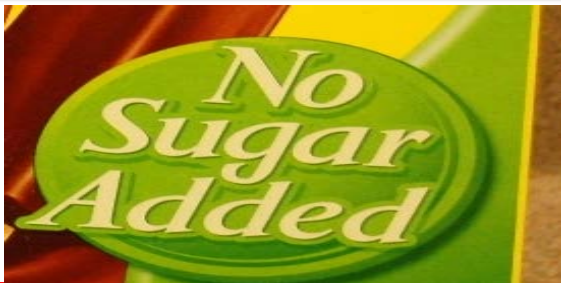


# Conclusions

- Overall, the nutritional composition of products bearing a sugar claim did not meet health professionals' expectations.
- Sugar claims may be misleading if used incorrectly or if there is not a meaningful reduction in calories.
- The perception that sugar claim products are free of sugars and/or lower in carbohydrates may be of concern for people with diabetes.



**"Lower in carbohydrates"**  
**"Lower in calories"**



**"No sugar"**

# Questions?



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