Site: **Wiki of Science** at http://wikiofscience.wikidot.com Source page: 20110809 - Nutritional balance of rice milk - 2008 at http://wikiofscience.wikidot.com/print:nutritional-balance-ricemilk

20110809 - Nutritional balance of rice milk - 2008

[<Normal page] [PEREZGONZALEZ Jose D (2008). Nutritional balance of ricemilk. Journal of Knowledge Advancement & Integration (ISSN 1177-4576), 2011, pages 87-90.]

Nutritional balance of rice milk

This article offers descriptive data regarding the nutritional balance of (standard) rice milk. These data were collected for a research on milk and milk alternatives in New Zealand between 2007 and 2008 (Perezgonzalez, 2008^{1}).

Rice milk is made from rice and water. The average rice milk (in this sample) is low in protein, high in carbohydrate and sugar, low in fat and saturated fat, low in fiber, and within maximum recommended limits for sodium.

Fold

Table of Contents

Nutritional balance of rice milk International standards Methods

> Research approach <u>Sample</u> Materials & analysis Generalization potential

On average, rice milk has a nutritional balance of BNI 42.17s, being particularly unbalanced towards excess of sugar.

Illustration 1: Nutrition information (rice milk)

BNI	42.17s	0.00
Food, 100ml	2008	Ideal
Protein	0.6	2.7
Carbohydrate	10.6	7.4
Sugar	4.0	< 1.3
Fat	1.0	1.5
Saturated fat	0.1	< 0.6
Fiber	0.0	0.8
Sodium	0.051	< 0.054
Kcal	53.8	53.8
kJul	225.1	225.1

Illustration 2: Nutritional profile (rice milk)

80%		*			
75%		*			
70%		*			
65%		*			
60%		*			
55%		*			
50%		*			
45%		*			
40%		*			
35%		*			
30%		*			
25%		*			
20%		*			
15%		*	*		
10%		*	*		
5%	*	*	*		
mid	р	С	f	fb	
max		s	sf		na
5%		*			*
10%		*			
15%		*			
20%		*			
25%		*			

5/08/2011 11:04 a.m. 1 of 4

ideal % = grey cells; actual % = asterisk (*)

International standards

Rice milk appears as somehow unbalanced according to international <u>Recommended Dietary Intakes</u> (<u>RDIs</u>), although less so according to U.S. and Canada's standards, which allow for a higher content of sugars and fat.

Illustration 3: Nutritional balance across different RDIs (rice milk)						
Rice milk	average	42.17	42.17	20.31	42.17	40.17
Product 100ml	Company	BNI	WHO	US/CAN	AUS/NZ	UK
Vitasoy rice milk protein enriched	Vitasoy	25.25	25.25	5.06	25.14	23.14
Vitasoy rice milk calcium enriched	Vitasoy	37.70	37.70	16.01	37.42	35.42
Get Natural rice milk	So Natural	38.17	34.94	28.17	38.17	32.94
Rice Dream vanilla enriched	Imagine Foods	55.10	55.10	25.67	55.10	53.10
Rice Dream original enriched	Imagine Foods	57.85	57.85	27.85	57.85	55.85
(Source: Perezgonzalez, $2008^{\frac{1}{2}}$)						

Correlations between indexes tend to be high and positive (and significant at the 0.10 cut-off point, which seems appropriate given the small sample size), except for the US/CAN index. However, the sample size is too small as for drawing much inference from it.

Illustration 4: Correlations between RDIs					
	BNI	WHO	US/CAN	AUS/NZ	
WHO	.995				
(sig.)	.000				
US/CAN	.801	.736			
(sig.)	.104	.156			
AUS/NZ	1.000	.994	.802		
(sig.)	.000	.001	.102		
UK	.995	1.000	.738	.995	
(sig.)	.000	.000	.154	.000	

Methods

Research approach

• The original research was an exploratory study on the nutritional balance of milk and milk alternatives in New Zealand in 2007-2008.

2 of 4 5/08/2011 11:04 a.m.

Sample

- The initial research sample included 44 milk and alternative milk products (ie, milk, soymilk and rice milk)¹. The food products were collected in a convenient manner, looking more for a variety of brands than a random sampling of the same.
- The results in this study simply describe the 'subsample' of rice milk products within the original sample: ie, 5 brands of rice milk³.

Materials & analysis

- Milk products were purchased from local supermarket chains in Palmerston North, New Zealand.
- Nutrition information for each milk product was retrieved from the nutritional information panel on each item, to be assessed using the <u>Balanced Nutrition Index™ (BNI™)</u> technology (see Perezgonzalez, 2011²).
- SPSS-v16 was used for variable computations, including BNI and international indexes, and statistical analysis, which included descriptives and correlations.

Generalization potential

Most of the products are made in Australia and internationally. Thus, the results of this study may be generalizable to the following populations (in order of decreasing generalization power):

- Australia.
- Internationally, if one assumes milk to be of approximately similar nutritional composition anywhere.

References

- 1. **PEREZGONZALEZ Jose D (2008).** *Milk and milk alternatives in New Zealand in 2007-2008.* The Balanced Nutrition Index (ISSN 1177-8849), 2011, issue 3.
- 2. **PEREZGONZALEZ Jose D (2011).** <u>Balanced Nutrition Index $^{\text{TM}}$ (BNI $^{\text{TM}}$).</u> Journal of Knowledge Advancement & Integration (ISSN 1177-4576), 2011, pages 20-21. Also retrievable from <u>Wiki of Science</u>.
- +++ Footnotes +++
- 3. The other categories were: standard milk (10 items), semi-skimmed milk (7 items), skimmed milk (9 items), standard soymilk (4 items), low-fat soymilk (7 items), and flavored low-fat soymilk (2 items).

Want to know more?

BNI™ database

The database offers individual nutrition analyses for foods, including the milk and alternative milk products referred to in above article.

BNI™ journal (2011, issue 3) - Milk and milk alternatives in New Zealand in 2007-2008

This issue of the Balanced Nutrition Index™ journal collates all BNI™ nutrition information for the original sample in a single book.

Wiki of Science - Balance Nutrition Index™ (BNI™)

This Wiki of Science page offers more information about the BNI™ technology.

Wiki of Science - Nutritional balance of milk and milk alternatives

These Wiki of Science pages offer more information for other milk categories: standard milk, semi-skimmed milk, skimmed milk, standard soymilk, low-fat soymilk, and flavored low-fat soymilk.

Author

Jose D PEREZGONZALEZ (2011). Massey University, Turitea Campus, Private Bag 11-222, Palmerston North 4442, New Zealand. (<u>JDPerezgonzalez</u> <u>JDPerezgonzalez</u>).

3 of 4 5/08/2011 11:04 a.m.

Other interesting sites











page revision: 1, last edited: 5 Aug 2011, 11:04 GMT+12 (19 seconds ago)

Unless stated otherwise Content of this page is licensed under <u>Creative Commons Attribution-ShareAlike 3.0</u> <u>License</u>

4 of 4 5/08/2011 11:04 a.m.