Determination of Nutrient composition of domestic and commercially available coconut milk preparations

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This study evaluated the nutrient composition of coconut milk (CM) prepared by blending (pressing) the grated coconut (*Cocos nucifera* L.) kernel and commercially available powdered or liquid CM. Nine randomly selected coconuts from ordinary tall coconut trees, three each from three regions in Kurunegala district were analyzed using standard methods. First extract (FE) of CM was prepared by blending a mixture of water and grated coconut kernel 1:1 (w:w) in a household blender. The strained pulp was used similarly, to prepare the Second Extract (SE). Commercial CM was prepared according to instructions on the packages. The results are given in Table 1.

Table 1. Nutrient composition of coconut milk

	Blended CM (BCM)		Liquid CM (LCM)	Powdered CM (PCM)
	FE ^a	SE ^a	FE ^a	FE ^a
Total sugars (mg/mL)	54.3±6.6	17.4±7.5	6.7±2.2	9.4±2.8
Reducing sugars (mg/mL)	22.2±6.1	4.9±2.2	1.9±0.8	6.9±0.1 to 19.1±0.5
Proteins (mg/mL)	54±19	32±14	26±7	38±5 to 68±6
Polyphenols/ (mg/mL)	1.72±0.34	0.89±0.11	1.17±0.14 to 0.38±0.02	1.98±0.17
Total fat (w/w %)	4.6±2.4	2.0±0.9	5.6 ± 0.4 to 16.7 ± 0.2	13.7±0.6 to 20.1±0.2
Iodine value (w/w %)	0.03 ± 0.00	0.02 ± 0.01	0.02 ± 0.01	0.01

^a-Each data point represents the mean of nine replicates ± standard deviation.

FE of BCM contained higher protein, polyphenol, sugar and fat levels compared to SE. Compared to commercial counterparts total fat content in FE of BCM is significantly (p \leq 0.05) lower while sugar, protein, polyphenol contents are significantly (p \leq 0.05) higher. However, the iodine values of all the samples were not significantly different indicating that the oil quality of the samples are unaffected by the method of preparation. Based on the results the domestic coconut milk preparations contain a lower fat content and higher protein and polyphenol composition, when compared to the commercial coconut milk preparations.

Keywords: Coconut milk, Commercial coconut milk, nutritional composition.

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