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Proximate composition of coconut flesh, first and second extraction of coconut milk

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As Sri Lankans we consume more coconut per individual of any other coconut producing countries. Coconut palm (*Cocos nucifera*) has many uses especially in preparation of meals from the fruit kernel and milk extracted from the kernel. The present study was aimed at determining the proximate composition and sugar content of coconut flesh, first and second extracts of coconut milk of randomly selected coconut from three different areas (Kurunaegala, Matara and Colombo)(n=6) using standard methods. Coconut milk (1^{st} and 2^{nd}) extracts were prepared by hand-squeezing the grated coconut with distilled water (coconut: water = 1:0.5) respectively.

When considering the coconut flesh, the moisture, ash and total dietary fibre contents were 49.2 ± 6.3%, 1.7 ± 0.7% and 36.9 ± 1.2% respectively. The most significant nutrient, fat was 55.6 ± 5.3% followed by insoluble dietary fibre content of 27.2 ± 4.1%. Soluble dietary fibre was one third of insoluble dietary fibre (9.7 ± 4.2%). Sucrose content was 1 ± 0.4% from total reducing sugar (3.8 ± 0.2%) content of coconut flesh.

In the case of both coconut milks the major contribution was from fat with the first extraction having double the amount of fat (81.2 ± 7.0%) than the second extraction (34.6 ± 5.3%) .The insoluble dietary fibre contents were 10.6 ± 5.9% and 1.4 ± 1.1% in first and second milk extracts respectively. Both extracts had similar soluble dietary fibre contents (3.4 ± 1.8, 3.1 ± 1.9). Of the total insoluble fibre an average range of 35% had been extracted into the first milk and only 9% into the second milk. Likewise the total soluble dietary fibre extracted into first and second milk extracts were 34% and 31% respectively. Total reducing sugar contents were significantly ($p<0.05$) high in the second extract (5.1 ± 0.5%) of the coconut milk when compared to the first extract (3.3 ± 0.3%). The second extract also contained higher sucrose (2.8 ± 0.6%) than the first extract (1.7 ± 0.6%) even though not significant. The first extract had significantly high fat and insoluble dietary fibre than the second extract.

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