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Selenium in Brazil nut “milk”: Is it safe?

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Studies on Brazil nut (*Bertholletia excelsa* H.B.K.) and their products revealed its antioxidant benefits, especially due to the Selenium (Se) level, naturally present in Brazil nuts. The Brazil nut tree is a Se accumulating plant and it is well-known the average of 100 µg of Se in two Brazil nuts. This amount supports the recommended daily intake (RDI) for Se of 55µg/day. On the other hand, it can be dangerous if the amount of Se is above the tolerable upper nutrient intake level for adults about 400µg/day. In order to study toxicological risks to consumers, the aim of this work was to evaluate the Brazil nut “milk” in two forms: (a) hydro-soluble (condensed milk) and (b) powdered (by atomization). The hydro-soluble samples showed an average of 150µg/100g. The value obtained was greater than that observed in the commercial soy product, which is not an acknowledged source of Se, as Brazil nut. The powdered “milk” showed Se content of 1.200µg/100g after atomization. Thus, when one considers the consumption of a tablespoon (10g) of the powdered product diluted in a 200 ml glass, 60µg/Se is proportionally obtained and this value is under the Se RDI for humans. In conclusion, the Se levels found in Brazil nuts “milk” were safe to consumers and higher than soybean milk, vegetable “milk”. Thus, the industry must evaluate each produced lot, since the Se content in the raw material varies according to the geographic region. It is import to emphasize the correct dilution in the labeling information of the product, in order to avoid the Se toxic level to the consumers.

Biography

Ariane M Kluczko has completed PhD from Federal University of Santa Catarina in Brazil and Post-doctoral studies in the same institution in 2015. She is Professor of Food Sciences at the Faculty of Pharmaceutical Sciences of Federal University of Amazonas, Brazil. She has published more than 15 papers in reputed journals and has 2 published books concerning Brazil nuts.

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