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## Nutritional composition of Serra Estrela cheese: A paradigm to overcome

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The Serra da Estrela (SE) cheese is an unique and singular product which was the first traditional Portuguese sheep cheese with a demarcated region (regulatory decree 42/85 of 5 July) to benefit from the status of Protected Denomination of Origin - PDO. Although SE production is very ancient, there are few studies concerning its nutritional composition. To perform the present study a total of 24 SE cheeses (in duplicate) were evaluated. A NIR Master 500 FT-NIR standalone spectrometer was used to perform this analysis. A Gas Chromatography with Flame Ionization Detection (GC-FID) was used to perform the lipid fraction study. Cheese samples were evaluated in terms of salt, moisture, protein and fat content. In all the cheeses studied the moisture varied between 42% and 53%, the fat content between 19.6 and 33.3%, the protein content between 18.6 and 26.7% and the salt between 0.7 and 2.2%. The analyzed samples presented considerable values regarding the content of short chain fatty acids (butyric, capronic, caprilic and capric acids) as well as of monounsaturated (oleic acid, palmitoleic acid, eicosenoic acid) and polyunsaturated fatty acids (alpha-linolenic acid, gamma-linolenic acid, arachidonic acid). These results, although preliminary, allow us to infer the potentiality of the SE cheese as a potential functional food, with characteristics that promote health, especially when regarding the lipid fraction. However, the future study of the reference dose becomes essential, in order to demonstrate the dose that may have beneficial effects on health, in terms of consumption.

### Biography

M João Reis Lima is currently the Vice-President of Agricultural School of Viseu in Portugal. She has completed her PhD in Biotechnology at Universidade Católica and graduated in Pharmacy at Universidade of Porto. She has made investigation works in the fields of analytical chemistry, food science and nutrition.

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