

Natural sources of phytosterols and production factors that modify them

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Resumen

Currently phytosterols are added to processed foods, which increase their cost and therefore limits its use. This manuscript aims to identify foods that are a natural source of phytosterols, as well as analyze how the environment and production management modify its content, linking these aspects with health. Phytosterols are compounds found in plants with hypocholesterolemic properties, which may help prevent cardiovascular diseases. The estimated daily intake of phytosterols varies between 160 and 500 mg/day, but its beneficial effect is achieved with 1,500 to 2,400 mg daily consumption. Oil and cereal seeds are the largest natural sources of phytosterols. Amaranth is considered a pseudocereal and among the cereals has the highest concentration of phytosterols with 178 mg/100 g, value 5 times higher than wheat flour. Environment modifies phytosterol content in food, drought and high temperatures can double their content in seeds; nitrogen fertilization and planting date can cause changes, but more studies are needed. The selection of genotypes with higher phytosterol content and studying the genotype x environment interaction, allow the identification of those genotypes with local adaptation for this character. The production management will increase the supply of natural foods rich in phytosterols, contributing to a greater supply of health protective foods.

Palabras clave

Palabras clave de autor: [Phytosterols](#); [health](#); [amaranth](#); [interaction GxE](#); [environmental](#)

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