Quantitative analysis of phytosterols in Aristotelia chilensis (Maqui) leaves using GC/MS

Muñoz, O.

Ramos, F.

© 2008 IFRJ. The prevalence of metabolic syndrome, hypertension, heart disease and diabetes has been increasing rapidly in Chile in recent years. The rate of increase has paralleled the replacement of traditional Mediterranean diets, which emphasize vegetables and fruits, with the fast food that now prevails, which has patterns rich in saturated fat. It is well-established that high phytosterol intakes can lower total and LDL cholesterol concentrations in human serum. Aristotelia chilensis (Mol.) Stuntz (Elaeocaepaceae), a 4-6 m tall evergreen tree with yellow flowers and edible black-coloured fruit, grows in central and southern Chile and in southwest Argentina and is typically consumed fresh or used to make jam, tea, wine, and juice. A.chilensis can also be used as a source of phytosteroles, which led us to begin our investigation into these compounds. To do so, a method based on GC-MS for separating, quantifying and identifying the phytosterols present in Aristotelia chilensis extrac