Abstract

Introduction: Tomato is considered a healthy food due to its high content in lycopene and other health-promoting natural compounds. Tomatoes have, undoubtedly, assumed the status of a food with functional properties, considering the epidemiological evidence of reducing the risk of certain types of cancers. Objective: Samples of tomatoes from Morocco were analyzed for the mineral composition. Methods: 94 tomato samples from Morocco were analyzed. Flame Atomic Absorption Spectrophotometry (FAAS) was used to determine essential elements (Copper (Cu), iron (Fe), manganese (Mn) and zinc (Zn)) and Atomic Absorption Spectrophotometry with Graphite Furnace (GAAS) was used to analyzed cadmium (Cd) and lead (Pb). Results: The mean concentrations were 0.17 mg/kg, 0.73 mg/kg, 0.20 mg/kg, 0.44 mg/kg, 7.58 g/kg and 15.8 g/kg for Cu, Fe, Mn, Zn, Cd and Pb, respectively. The highest contribution to the intakes was observed for Cu (0.67% for adults) while that Zn showed the lowest contribution (0.14% for adult males and 0.20% for adult females). Conclusions: Tomatoes are a good source of essential elements for the diet, mainly iron and zinc. Tomatoes consumption does not significantly affect the intake of heavy metals.

Keywords

Morocco, Tomatoes, Essential elements, Toxic metals, Intake.