

Abstract

A food survey was carried out with the aim to investigate the levels of lead (Pb), zinc (Zn), copper (Cu) and chromium (Cr) in various fruits and vegetables sold in Algeria. Concentrations (mg/kg. dry wt.) in selected foodstuffs were detected within the following ranges: 4-29.49, 11.17-49, 12.33-39.33 and 3-16.33 for Cu, Zn, Pb and Cr respectively. The food ingestion rate of the selected items was investigated by self-administered questionnaires which were filled by a total of 843 people randomly recruited at the exit of markets. The potential health risk for consumers was investigated by estimating the daily intake (EDI) and the target hazard quotient (THQ) for each heavy metal. For all foodstuffs, the EDI and the THQ were below the threshold values for Cu, Zn and Cr while they exceeded the thresholds for Pb (EDI: 15.66. $\mu\text{g. Pb/kg body weight/day}$; THQ: 4.37), indicating an obvious health risk over a life time of exposure