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Presence of heavy metals in fruits from *Prunus* genera

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Abstract The environment pollution with heavy metals is due mainly to the activity of humans. High quantities of these metals can be toxic for all organisms. The entry of heavy metals from the polluted environment in fruits and plants is influenced by different factors and stopped through several mechanisms. Their presence can have effects on different physiological processes: photosynthesis, respiration, transpiration, cell membrane permeability. Using heavy metal contaminated vegetal products in alimentation can have important effects on short or long terms, depending on the intensity and action period of the polluting factor. The objective of present work was to investigate the presence of heavy metals (Cd, Cu and Pb) in different stages of cherry, sour cherry and apricot growing. Atomic absorption spectrometry in air/acetylene flame was used to estimate and evaluate the levels of these metals in fruits from *Prunus* genera. The highest cadmium's concentration was found in almost ripe sour cherry (0.647 mg/Kg) while plumb was not detected in studied fruits. The accumulation of investigated metals is different depending on the stage of development.

Keywords: Cd, Cu, Pb, cherry, sour cherry, apricot, flame atomic absorption spectrometry

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