

P169. TOTAL AND EXTRACTABLE LEVELS OF HEAVY METALS OF SOIL SAMPLES IN GREENHOUSE FROM TOKAT, TURKEY

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Because of greenhouses are high capacity of agricultural production areas, intense usage of pesticides, fertilizers or water, it may cause heavy metal pollution. The aim of this study was to determine total and extractable levels of heavy metals (Ni, Cd, Cr, Pb, Cu, Zn) of soil samples in greenhouse in Tokat province, Turkey. For this purpose, total 60 soil samples were collected from the 0–20 cm topsoil layer and 20-40 cm subsoil layers in different 30 greenhouses. The levels of heavy metals were determined by using inductively couple plasma optic emission spectrometry (ICP OES) according to standard methods. Heavy metal levels were found as Zn (81.8-331.5), Ni (10.0- 18.4), Cr (51.2- 289.8), Pb (BDL-54.3), Cu (118.3-178), Cd (BDL- 0.001) mg kg⁻¹ in 0-20 cm topsoil and Zn (81.2-290.9), Ni (1.16- 196.8), Cr (53.2- 284.2), Pb (0.49-30.8), Cu (87.8-175.1), Cd (BDL- 0,001) mg kg⁻¹ in 20-40 cm subsoil layers. DTPA-extractable contents of heavy metals were found as Zn (1.2-10.5), Ni (BDL- 0.55), Cr (0-0.018), Pb (0.87-1.03), Cu (1.02-7.99), Cd (0.009- 0.058) mg kg⁻¹ in 0-20 cm topsoil and Zn (0.89-15.3) Ni (0- 0.52), Cr (BDL-0.019), Pb (0.008-2.16), Cu (1.12-11.2), Cd (0.007-0.083) mg kg⁻¹ in 20-40 cm subsoil layers.

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