

## **Trace elements distribution in the soil profiles of Peshawar**

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Twenty two soil profiles derived from piedmont (shales), alluvium, loess and re-deposited loess underlain by Quaternary sediments in Peshawar district were sampled and analyzed for total Cd, Cr, Cu, Mn, Ni, Zn, and Pb using Atomic Absorption Spectrophotometer. There was no significant difference in total content of Cu in all soils. In contrast, the total content of Cd, Cr, Mn and Zn was found to be significantly greater ( $p < 0.05$ ) in piedmont soils than alluvium and loess soils. Similarly, Ni and Pb were significantly greater ( $p < 0.05$ ) in loess soils than piedmont and alluvium soils. In addition to that, Cr, Pb and Zn were found to be significantly greater ( $p < 0.05$ ) in the A horizon of piedmont and alluvium soils than B horizon. The total content of all trace elements, except Cd and Ni, was found to be at their typical concentrations for normal soils. There was no significant difference between total trace elements content except for Cd and Ni between soils and parent materials. All metals were evenly distributed and derived from similar parent material of sedimentary origin.