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CORRELATION BETWEEN THE LEAD CONTENT IN SOIL AND GRASS IN SAMPLES FROM CONTAMINATED REGION

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Pollution of the environment with heavy metals is especially evident near the lead and zinc smelters. Part of this metal in the soil is in a soluble form and is available for the plants. In this paper an analysis for the total and soluble lead in the soil has been made, as well as the lead content in fresh grass (collected in spring), and dry grass (collected in summer). The soil and grass samples were taken on sites that are on a different distances (1, 1.5, 5.5, 14 and 20 km) from the lead and zinc smelter near the city of Veles. Lead determination has been carried out with Atomic Absorption Spectroscopy. A comparison between the data for the total and soluble form of lead in soil samples, and the lead content in fresh and dried grass samples has been made. It has been found that the total and soluble lead concentrations in the soil samples collected near the smelter are considerably higher than the samples collected on more distant sites. Similar conclusion was made for the grass samples, whereas the lead content in dried grass (collected in summer) was significantly higher.

*Editorial note: Recognized by Greece as FYROM