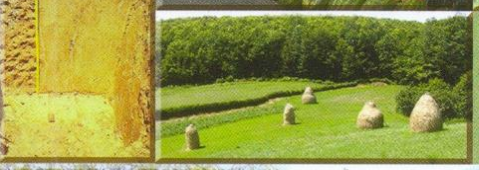

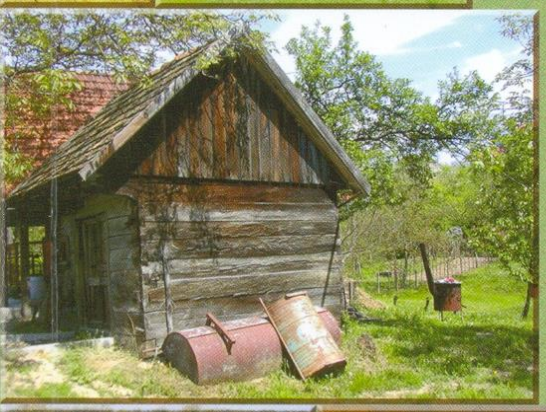

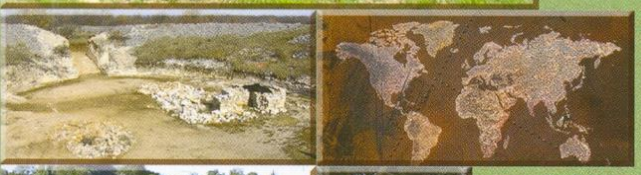

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SUMMARIES

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THE SPATIAL VARIABILITY OF SOIL DEHYDROGENASE ACTIVITY: A SURVEY IN URBAN SOILS

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It is well known that changes in enzyme activities depend on not only variations of gene expression but also on changes of environmental factors affecting the considered activity. Information on soil microbial activity used to determine soil microbiological characteristics are very important for soil quality and productivity. Microbiological properties may be evaluated statistically due to application of geostatistical methods to soil science. The objective of this study was to assess the spatial variability of the dehydrogenase activity (DHA), in the urban area topsoils using geostatistics. DHA along a transect in an urban area was determined using 39 soil samples from the upper 20 cm of soil varied from 10.7-253.4 (g TPF g-1 soil respectively. The spherical model fits the best semivariogram model for DHA and exhibited spatial dependence with range of influence of approximately 48.2 km.

Keywords: Spatial variability; Dehydrogenase activity; Kriging; Pasture