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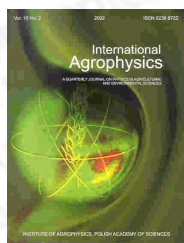
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Effect of stress on stereological parameters of polished sections of soil samples*

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A. Guc, H. Czachor, K. Konstankiewicz

Institute of Agrophysics, Polish Academy of Sciences, Doświadczalna 4, 20-236
Lublin, P.O. Box 121, Poland

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abstract Subjecting soil to uniaxial stress causes its compaction and, at the same time, a change in its structure. So, it is important to find methods allowing to estimate such changes. The present study proposes the use of a stereological method, and estimators of a few physical values, eg. porosity and interaggregate distance, have been selected for the analysis. Attempts have also been made to find the answer to the question whether it is possible to determine the number of soil aggregates, which had been destroyed during sample compression, using stereological methods. The answer to this question can be obtained by analysing the changes in granulometric distribution, which were connected with the change in the number of aggregates in individual fractions. It has been indicated that the procedure, the idea of which had been presented earlier by Rush, is fit for determination of such distribution.

keywords stereology, image analysis, histogram, grain size distribution, soil aggregate