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"SOIL SCIENCE IN INTERNATIONAL YEAR OF SOILS 2015"

19 – 23 October 2015 Sochi, Russia

ABSTRACT BOOK

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Abstract book

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Annotation. The Proceedings of the Congress which be organized with the theme and declare by the UN General Assembly "The International Year of the Soil". The Congress provided a great opportunity to learn and discuss recent advances in the soil science in general and to establish contacts and collaborations with participants from many different parts of the word. The congress will focus on multidisciplinary approach to soil science, with special interest on basic research, latest and technological developments for soil use and management. This scientific book emphasizes basic concepts of soil. The book also provides multiple opportunities for interaction among scientists from public and private institutions that will help accelerate the transfer of knowledge about soil science into action for the benefit of society and the environment.

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The impact of floods on the structural stability of microaggregates in agricultural soils of the Republic of Serbia

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After the catastrophic floods in the Republic of Serbia, during May 2014, evaluation of the impact of flood waters on the structural stability of microaggregates in soil samples from fifty locations was done. The soil structure is one of the characteristics that greatly affects the fertility of the soil, and develops gradually through the complex physical and chemical processes. It is a very dynamic parameter, especially in the topsoil horizon (which was actually examined in this study), since the changes can occur under the influence of climatic factors, crops and tillage. In the analysed soil samples in disturbed state it was determined the ratio between the total content of particles of less than 0.002 mm (clay) in soil samples prepared with sodium pyrophosphate ($Na_4P_2O_7$ x 10 H_2O) and the content of such particles in soil suspension prepared with water (H_2O). The degree of the stability of microaggregates was expressed according to Vageler, in relation to their estimated stability index. The obtained results showed that the analysed soil samples had stable to very stable degree of the structural microaggregates stability and that flood waters have not significantly influenced the tested parameter.

Key words: agricultural soil, structural aggregates stability, clay, floods

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