



Soil structure and the effect of management practices on a cambic chernozem

D. ȚOPA, G. JIȚĂREANU, L. RĂUS, M. CARA - USAMV Iasi

The experiment carried out during 2005-2008, was located in the East part of Romania, (47°07' N, 27°30' E), on a cambic chernozem with a clayloamy texture and 2.7 % humus content and a medium level of fertilization. The experimental site has an annual average temperature of 9.40C and precipitation of 587 mm. The experimental design was in a "split plots design" with three replicates. Plots covered area of 60 m², in a rotation of soybean, winter wheat and maize, with the current experiment in winter wheat. The purpose of this study was to evaluate the influence of conventional and minimum tillage systems (disk harrow, paraplow and chisel) on soil aggregate distribution, mean weight diameter (MWD) and water stable aggregates (WSA) in the area of the Moldovian Plateau. As regards the water stable aggregates (WSA) at the harvesting time, we had the biggest average value at the chisel + rotary harrow variant (80.43 %) and the smallest one at disk harrow treatment (76.51 %).