

## Earthworm abundance (Oligochaeta: Lumbricidae) in conditions of organic and mineral fertilization

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This paper presents data obtained by researching the influence of organic fertilizers (bovine manure in dose of 20 t/ha) and chemical fertilizers (N120P120) on earthworm dynamics in soil, under aspect of individuals number and biomass, within the wheat and maize cultures, on a luvic phaeozem soil (FAO System). It was observed that in wheat culture was identified an earthworm number and a biomass larger than in the maize culture, regardless the fertilization type. The chemical fertilization negatively influenced both the earthworm number and their biomass, in both plant cultures. The organic fertilization positively influenced the earthworm activity, their number and biomass significantly increasing. In this case there was noticed a superior activity of earthworms in the wheat culture against the maize. The statistical study made by regression and correlation methods for the data recorded in the control variant showed that the chemical parameters of soil nitrogen index, potassium and pH manifest by the recorded values in the experimental variants a positive influence on earthworms' number and biomass. For the variant with chemical fertilization (N120P120), the same factors have positive influences on the earthworms' number, the same tendency being observed regarding the biomass too. In the case of organic fertilization it was observed both for the earthworm number and biomass a positive influence of the analyzed factors pH, nitrogen index and potassium. The factor phosphorous manifested a negative influence on earthworms' dynamics.