

***Eisenia fetida* (Sav. 1826) – a bioindicator of the agricultural and anthropogenic environment**

Summary

The red wiggler earthworm, *Eisenia fetida* (Sav.), is a model species for research on the harmfulness of various chemicals for saprophagous invertebrates, on account of its rapid reproduction rate in comparison to other wild-living species and the most uniform genetic background. They are used in a variety of toxicological tests, legally normalised by EU Directives and the OECD. Earthworms have become one of basic subjects of ecotoxicological research evaluating changes in the environment, with special attention paid to various plant protection products and to heavy metals. This is because of their anatomical structure and how they take in food (most eat soil). *E. fetida* can be used as a bioindicator (in research on populations or reproduction) or as a biomarker at the cellular level or in individual organs.

KEY WORDS: *Eisenia fetida*, earthworms, bioindicator, soil, heavy metals, pesticides