

Some microbiological aspect of entiantrosoils in Cluj county

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Abstract

The most aggressive form of soil degradation is that through surface mining excavation after which, very frequent remains “industrial deserts”.

In Transylvania, through this kind of exploitations are degraded over 10 000 ha.

This paper refers to microbiological aspect from Aghires entiantrosoils.

Soil samples have been took 4 soil profiles on 0-10 cm depth, 10-20 cm, 20-30 cm and 30-40 cm and have been analyzed according to the extant laboratory methodology for microbiological laboratories.

Analysing the results obtained to the fourth profiles it can be ascertain next:

- in case of leveled dump by 4 years, covered with natural vegetation 15 %, the total number of bacterium vary between 9,2 and 361,5.

- in case of leveled dump by 10 years, and covered with vegetation cca. 50 %, the total number of bacterium is smaller and it vary between 3,3 and 26,2.

- in case of leveled dump by 10 years, and covered with vegetation cca. 60 %, the total number of bacterium vary between 5,5 and 322,0.

- in case of leveled dump by 15 years, and covered with vegetation cca. 65-70 %, the total number of bacterium is relatively low with the exception of the depth between 30-40 cm where it seemed to be found soil leached from the surface horizon.

In conclusions, we can state that, the heterotrophic bacterium microflora is different from profile to profile, from depth to depth. This explains by inhomogeneity of the material which was deposited in the dump during the mining excavation. Through the present technology, without a selective decover frequent the vegetable layer is deposited in the depth.

Key words: entiantrosoil, microbiology