



## **Isolation of Acanthamoeba from the rhizosphere of maize and lucerne plants**

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Acanthamoeba species are free-living amoebae that can be found in almost every range of environments. Within this genus, a number of species are recognized as human pathogens, potentially causing Acanthamoeba keratitis, granulomatous amoebic encephalitis, and chronic granulomatous lesions.

Soil and water samples were taken from experimental station at Julianna Major of Plant Protection Institute of Centre for Agricultural Research, Hungarian Academy of Sciences. We detected living Acanthamoeba spp. based on culture- confirmed detection combined with the molecular taxonomic identification method. Living Acanthamoeba spp. were detected in thirteen (65%) samples. The presence of Acanthamoeba spp. in the samples depends significantly on the rhizosphere plants. The most frequently identified living Acanthamoeba genotype was T4 followed by T11, T2/T6 and T17.

Genotypes T4 and T11 of Acanthamoeba, are responsible for Acanthamoeba keratitis as well as granulomatous amoebic encephalitis, and should therefore be considered as a potential health risk associated with human activities in the environment.