



Field studies on raw soil revegetation and effects of mycorrhizal soil pretreatment

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Establishing vegetation on raw soil embankments demands specific needs regarding seeding techniques, planting material or additional soil treatment. Regarding the complex subsoil relations, in specific the connections between plants and fungi there is a great deal of uncertainty. Therefore an experimental setup was constructed within a research project which deals with revegetation measures on raw soil embankments at a compensation reservoir in Austria. The reservoir is based in Vandans/Vorarlberg and is part of a hydroelectric power station complex. In the course of the project, different substrates and methods of seeding are tested to set up protective vegetation cover at the reservoir-embankment consisting of concrete panels. The main objectives of these measures were specified as follows: waterproofing of the reservoir may not be damaged by the vegetation and maintenance should be conducted in a very extensive way. Especially the rapid fluctuations of water levels in the reservoir present a severe damage to the vegetation. Therefore, a series of tests were conducted in field and in the laboratory, to test the effects of Mycorrhiza regarding growing success rate of plants on raw soils using auxiliary greening material. Constructional issues regarding the field trials and results of aboveground and underground vegetation development are presented.