

Abstract

Arbuscular mycorrhiza is a type of mutualistic symbiosis between most plant species and fungi from the phylum Glomeromycota. Both partners exchange nutrients. The fungus provides inorganic substances especially phosphorus and receives the products of photosynthesis from the plant. Mycorrhiza also affects plant growth and resistance against pathogens. The composition of AM fungi community is, apart from abiotic factors, also driven by the host plant traits such as photosynthetic type, growth form, life cycle, CSR strategy, N-fixation or mycorrhizal status. The role of mycorrhizae also differs among different plant functional types. This thesis describes the differences in composition and diversity of AM fungal communities among plants with different ecophysiological traits and summarizes the role of mycorrhiza for different plant functional types.