

This bachelor thesis focuses on activities of the bacterial genus *Streptomyces* in relations to plants, animals and human. Many cases of their symbiotic relationships with plants are known, but there is also a common plant pathogen *S. scabies*. As a primary soil bacteria, their association with animals is infrequent, but not exceptional. Symbiotic relationships have been observed for example in several insect species. *Streptomyces* have been repeatedly isolated from the human microbiome, however only a little information about their influence on human body is available. Due to the wide production of secondary metabolites affecting other microorganisms, their role can be assumed as significant. The relationship between human *Streptomyces* and human could have a parallel in the *Streptomyces* symbiosis with plants and insects, but it can also have certain effects on pathogenesis. The ability of beta haemolysis was demonstrated in tested strains. In addition, there are cases of serious diseases caused by *Streptomyces*. Next to the relatively common actinomycosis in the regions of Sudan and India, diseases such as pneumonia or abscess were reported.