

## PLANT AUTOTOXICITY – AN EXAMPLE OF ALLELOPATHIC INTERACTION

### Summary

Autotoxicity is a type of intraspecific allelopathy (autoallelopathy), caused through the release into the environment compounds, which belong to secondary metabolites. Autotoxicity is observed in natural environment and in agroecosystems. It causes both, beneficial and negative effects. Autoallelopathy allows plants to survive by avoiding intra-competition. On the other hand, it is a serious economical problem. Accumulation of autotoxins

in the soil causes soil sickness, and results in negative effects on plant photosynthesis, respiration, hormonal balance or ion uptake and finally led to increase in yield losses. Some species developed mechanisms to avoid autotoxicity by sequestration of the toxic compounds in cell compartments or by binding them in form of glycosides. The phenomenon of autotoxicity could be exploited also as weed management strategy.