

SURFACE COMPOUNDS IN ALLELOPATHIC INTERACTIONS IN MYCORRHIZAL PLANTS INFLUENCED BY ENVIRONMENTAL POLLUTION**Zobel A. M.¹, Bialońska D.², Turnau K.³**¹*Trent University, Peterborough, ON, Canada K9J 7B8*²*Ecology Department, ³Biology Department, Jagiellonian University, Krakow, Poland*

Allelopathy lets us return to natural agriculture, and may keep plant crops healthy, leading to sustainable animal and human health by preventing excessive use of man-made chemicals. Such chemicals are foreign to animal and plant evolution, and can be toxic if leached into spring water or water collected in deeper aquifers. Polluted surface water changed plant-plant interactions. Compounds extruded to the surface of plants, such as total phenolics, flavonoids and coumarins, are influenced by pollution as well as microbial interactions, both free and mycorrhizal. We are going to discuss such complex interactions involving the environment, its influence on the production of secondary metabolites and their extrusion to the surface, and the application of such model systems to recultivation of mine sites and extremely polluted areas. (*Sponsored by NATO grant 979 826*).