

EFFECTS OF ROOT EXUDATES ORIGINATED FROM MYCORRHIZAL PLANTS ON PATHOGENIC *FUSARIUM* sp.

Ildikó Hernádi, Katalin Posta

Microbiology and Environmental Toxicology Group, Plant Protection Institute, Szent István
University, 2100, Gödöllő, Hungary

Email: hernadi.ildiko@mkk.szie.hu

It is well known that arbuscular mycorrhizal (AM) fungi could enhance the uptake of phosphorus, but they also contribute to the absorption of other immobile ions, such as zinc and copper. Furthermore, they can protect the plants against pathogenic microorganisms¹, improve soil structure and confer heavy metal resistance to plants.

Alleviation of damage caused by soil-borne pathogens has been widely reported in mycorrhizal plants, however the mechanisms taking part in that are mostly unknown. The experimental results presented here represent one step towards such an understanding. Our aim was to study the influence of root exudates originated from mycorrhizal(AM+) and non-mycorrhizal(AM-) plants on the growth and virulence of *Fusarium* sp.

Pepper plants (AM+, AM-) were growing for one month in a sterile sand culture at controlled condition than root exudate of both treatments were collected using water system². Pathogenic *Fusarium* sp. was maintained on tomato agar containing sterilized mycorrhizal or non-mycorrhizal root exudates and after one week of growth their infection-ability was tested by pepper crops.

Microscopic examination of sporulation of *Fusarium* sp. showed clear differences between the treatments: root exudates of mycorrhizal plants decreased the quantity and the quality of conidium. Inoculation of pepper crops with *Fusarium* sp. growing on mycorrhizal root exudate caused less damaged than control(AM-) suggesting the indirect role of mycorrhizal fungi on plant protection system.

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