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First report of field bindweed (*Convolvulus arvensis* L.) penetrates the roots of pepper (*Capsicum annuum* L.) plants.

Bindweed (*Convolvulus arvensis* L.) is a root competitor weed that represents a major constraint for several crops production all over the world. Bindweed has adopted a parasitic lifestyle on pepper plants (*Capsicum annuum* L.). Parasitic plants develop a multicellular infectious organ called a haustorium. In March 2017, 42 samples were collected from Minia and Beni Suef governorates, Egypt and evaluated for their virulence against pepper plants. Pathogenesis test were carried out in sids research station. These populations tested were able to attack the pepper roots (Balady variety) appearing polar and dwarf leaves compared to leaves of uninfected control plants. The histological structures of *Convolvulus arvensis* and pepper roots revealed that the vascular xylem of the bindweed primary and secondary haustoria eventually connected with phloem conducting elements of the host root. By use of the light microscope, boundary features of the penetration and connection of the secondary to the primary root (in healthy pepper plants) were compared histologically with those of the haustoria and the host root cells (in infected pepper plants). These findings are important in assessing the potential of the parasite as an agronomically significant pest in Egypt.

Keywords: bindweed, *Convolvulus arvensis*, pepper, *Capsicum annuum*, haustorium Pathogenesis.

Biography

Farag Mohamed has years experience in Plant Pathology. He is currently working as a researcher in Plant Pathology Res. Institute, Agric. Res. Center, Giza, Egypt. He is in Cooperation with General Administration for training and Agriculture Extension in held training courses for Agricultural Extension agents in plant pathology field. He has an Excellent experience in conducting researches in induction and biological control in the field of plant disease.

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