M2. "Breeding faba bean for resistance to *Orobanche* spp: past research and future orientation"

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ABSTRACT: Faba bean (*Vicia faba* L.) is one of the important pulse crops grown in many parts of the world. Its production and productivity are affected by different biotic and abiotic stresses. Broomrape (*Orobanche* and *Phelipanche* spp.) causes yield losses of 7- 80% in major faba bean growing countries mainly in the Mediterranean Basin and Nile Valley countries. Host plant resistance is one of the effective and economic methods of broomrape control. Efforts made at the International Center for Agriculture Research in the Dry Areas (ICARDA) over many years to develop advanced breeding lines with acceptable resistance and tolerance levels to broomrape have resulted in the identification of several useful breeding lines with broad adaptability and yield stability in the presence of Orobanche infections. However resistance source from selection made at Tel Hadya were found susceptible when tested at Giza Egypt and Shandaweel Research stations in Egypt. Similarly Orobanche resistant/tolerant (Giza419, Giza 843, Misr1, Misr2 and Misr3) released in Egypt were susceptible in Tel Hadya, Syria during 2011/2012 season. These results could indicate a differential response of Orobanche. A preliminary study in Gemeiza Egypt of 6 different pathotypes indicates differential response of faba bean lines against Orobanche infestation. Identification and usage of of the most virulent pathotype and important Orobanche spp will be conducted to improve the selection efficiency of the international breeding program

SPEAKER BIOGRAPHY: Dr Fouad Maalouf is Lebanese. He is a Faba bean breeder at the International Center for Agricultural Research in Dry Areas (ICARDA)-Cairo Egypt. He is a Senior Scientist responsible for a fully-fledged faba bean breeding program. His activities are related to major biotic and abiotic stresses in faba bean. His interest is the development of faba bean tolerance to herbicides, mechanical harvestable genotypes. He is also conducting research on faba bean heat and drought tolerance.