Enhanced Wheat Production in Morocco through Breeding Hessian Fly Resistance.

Osman Abdalla1, Mostapha El Bouhssini2, Saadia Lhaloui3, Francis Ogbonnaya2, Ahmed Amri2, Mohammed Jlebene4, Ali Omammo5 and Ala’a Yaljarouka2, (1)ICARDA - Intl Center for Agricultural Research in the Dry Areas, Aleppo, SYRIA
(2)Biodiversity and Integrated Gene Management (BIGM) Program, International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syria
(3)INRA, Morocco, Settat, Morocco
(4)Breeding, INRA, Morocco, Meknas, Morocco
(5)Wheat Breeding, INRA, Morocco, Settat, Morocco

Wheat is the main staple food in Morocco, with per capita annual consumption among the highest in the world. Over three million hectares of bread wheat and durum wheat are cultivated in Morocco, which accounts for approximately 50% of the total land area under cultivation. Wheat yields are low, averaging 1.2 tons/ha and total annual wheat production is roughly three million tons, equivalent to 60% of the country’s ever-increasing demand. Future growth in wheat production would have to come largely from intensifying productivity of currently cultivated areas. The Hessian fly, Mayetiola destructor (Say), is a major destructive pest of wheat in North Africa, South Europe, North America and North Kazakhstan. Development of new improved wheat cultivars with enhanced defenses against important biotic stresses, such as Hessian fly, is considered a key component in ensuring stability of Moroccan wheat yields. The integration of the rapidly developing biotechnology techniques with conventional methods of plant breeding can speed up considerably the process of developing new cultivars. In this presentation the collaboration between ICARDA and INRA-Morocco in breeding Hessian fly-resistant germplasm/varieties is outlined and performance of resulting cultivars is presented.