



Workshop 3 FABA BEAN

WS31: Improving faba bean (Vicia faba L.) for sustainable agriculture in drylands

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Faba bean (Vicia faba) is a major cool season food legume in many countries grown under rainfed and irrigated production systems around the world. Faba bean productivity and production are threaten by abiotic (heat, drought, acidity) and biotic stresses (foliar diseases and parasitic weeds), poor agronomic practices and insect pests. For the last four decades, faba bean improvement program at ICARDA has generated many elite germplasm lines resistant to parasitic weeds and foliar diseases as well as tolerant to heat. Major sources for resistance to ascochyta blight, chocolate spot and rust have originated from Ecuador, Germany, Italy, Lebanon, Morocco; for Orobanche, F402 remains the main source of resistance and for heat tolerance there are different donors such as IG11743, IG11843, VF351, VF420, VF522, VF626, and INRA1631. The improved lines were shared with National Agriculture Research Systems (NARS) partners leading to the release of 73 varieties. During the last 10 years, 27 faba bean varieties were released by NARS targeting rainfed and irrigated production systems in China, Ethiopia, Sudan and Egypt. In Ethiopia, various varieties (Gora, Gelbecho, Moti and Walki) are being scaled-up in the cerealbased cropping system in Ethiopia. In Egypt, partially resistant cultivars (Giza-843 and Misr-3) for parasitic weed helped in the rehabilitation of faba bean leading to 20% increase in national faba bean productivity.