Desert Inst. Bull., Egypt. 48, No. 1, 97-106(1998)

5

Evaluation of some genotypes of faba bean (*Vicia faba* L.) under rainfall conditions of Maryout.

**** S. A. Omar, *A.A. EI-Hosary, ** S.A.N. Afiah, ** N.M.M. Moselhy**

** Department of Agron. fac. Agric. Sci., Moshtoher, Zagazig, Univ. Egypt.*

*** Desert Research Center, Egypt.*

Ten faba bean breeding lines and four cultivars were tested for yield and yield attributes under rainfed conditions of Maryout, Egypt. The lines and / or cultivars varied significantly in respect to all characters studied during the two years of test. In the combined analysis, seasons mean squares were significant for all traits except 100 seed weight, indicating that these traits were unstable from one season to another. Significant cultivar and / or line mean squares along with signifcant cultivars x season mean squares were detected for all traits except number of branches / plant. Such results indicate that the tested genotypes varied from each other and ranked differently from season to another. The three lines M. 143, M. 102 and M. 103 had the highest seed yield/ m^2 in the combined analysis. M. 143 was higher than the two check cultivars Giza Blanca and Giza 461 by 15% and 18.03%, respectively.

Keywords: Faba bean, Performance, Yield and yiel components, Desert environments Supplemental irrigation, Calcareous soils Drought resistance.

Resistance of faba bean genotypes to various biotic and abiotic factors is an important aim to faba bean breeders. Development of