



Expression of plant-environment interaction of four groups of *Vicia faba* selected from a mixed population

Iurato, A.^{a*}, Copani, V.^a, Piccitto, A.^a, Cosentino, S.L.^a & Testa, G.^a

^aDepartment of Agriculture, Food and Environment (Di3A), University of Catania, Via Santa Sofia 100, 95123 Catania, Italy

*antonella.iurato@unict.it

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Faba bean (*Vicia faba* L.) is one of the most ancient cultivated crops and, in the Mediterranean countries, it is widely used in human and animal nutrition because of its high nutritional value.

This legume is also important for the positive effect on soil productivity given by its nitrogen fixation capacity. Therefore, this species can be seen as a key crop to include in crop rotation to minimise the inputs on fertilization. The genetic variability of faba bean species is large, bringing a continuous variation in productivity and morphological characteristics. Genetic resources and environmental influence can be linked to overcoming loss in productivity due to unpredictable climatic conditions and abiotic stresses in general. Among the most important *vicia faba* varieties, *Vicia faba* L. var. minor requires particular attention because of its potential in animal feeding and more varieties adapted to Mediterranean conditions are needed.

This study aimed to understand the interaction between the environment and the plants of 4 groups of *Vicia Faba* L. under field conditions. The trials were performed in two locations in Sicily and the productivity and the growth behaviour were assessed to understand the influence of the climatic conditions of the site. The groups studied were compared to two commercial varieties, selected by the University of Catania (Sicania and Sikelia).