

**A Research on the Determination of Qualitative and Quantitative Features of Local Dry Bean Populations Collected from Kirsehir Province of Turkey**

Omer SOZEN<sup>1</sup>, Ufuk KARADAVUT<sup>2</sup>

<sup>1</sup>Department of Field Crops, Faculty of Agriculture, University of Ahi Evran, Kirsehir, TURKEY

<sup>2</sup>Biometry and Genetic Unit, Faculty of Agriculture, University of Ahi Evran, Kirsehir, TURKEY  
eekim\_55@hotmail.com

**Aim of the study:** This study was carried out to determine the qualitative and quantitative variations of the local dry bean populations collected from Kirsehir province within the borders of the Central Anatolia Region and to determine its usefulness in breeding studies.

**Material and Methods:** The study was conducted for two years, 2014 and 2015. In the first year of the study, morphological characterization was performed according to the characteristics determined by the International Plant Genetic Resources Institute (IBGRI).

**Results:** As a result of the morphological characterization, it was determined that 49 of the population were stunted, 70 of them were semi-dwarf and the remaining 39 were in the form of wrapping. In addition, it was determined that the population showed a great variation in seed color, 58 of them were white, 51 were brown, 17 were black, 14 were violet and the remaining 18 were gray, red and green seed color. The agronomic and phenological characteristics of 158 local dry bean populations that underwent morphological characterization during the first year of the study were determined. In addition, minimum and maximum values for each property are set. 158 local dry bean populations were planted in augmented trial design with 6 standard varieties of dry beans (Zulbiye, Goynük 98, Akman, Karacasehir 98, Onceler, Yunus 90). As a result of observations, it was determined that the length of the plant varies between 47 - 178 cm, the number of pods in the plant is between 5 and 64 and the weight of one hundred varies between 16.23 - 45.29 g. As a result of the study, it is concluded that there are promising genotypes, which have the standard varieties in terms of breeding, and that selection studies on these genotypes should continue.

**Acknowledgements:** This work was supported by the Ahi Evran University Scientific Research Projects Coordination Unit. Project Number: ZRT.E2.17.015

**Key words:** Kirsehir, dry bean, breeding, characterization, variation.