

VARIETY DEVELOPMENT STUDIES OF SOME CARNATION (*Dianthus* L.) TAXA THAT ARE FOUND NATURALLY IN TURKEY AS OUTDOOR PLANT

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INTRODUCTION

Turkey is depended to other countries in terms of ornamental plants production material. Development of varieties, which have high quality and yield, can be demanded in the market with meeting consumer requests, will make a contribution to both ornamental sector and national economy. Within this scope, variety development studies of carnation (*Dianthus* L.) genera that are found naturally in the flora of Turkey is being conducted by Istanbul Nezahat Gokyigit Botanical Garden (NGBB) and Bati Akdeniz Agricultural Research Institute (BATEM) since 2017. In this report, the information about carnation variety development studies within the scope of the project and characteristics of developed genotypes is given.

MATERIAL AND METHOD

In this study, In this study *Dianthus erinaceus* Boiss., *Dianthus carmelitarum* Reut. ex Boiss, *Dianthus zonatus* Fenzl, *Dianthus goekayi*, *Dianthus anatolicus* Boiss., *Dianthus armeria* L., and commercial varieties were used as plant material. In variety development studies, clonal selection method was used.

RESULTS

In the first period of the study, 2469 hybridization combinations were done, and 6.03% hybridization success was achieved. Among these combinations, seed number per capsule varied between 1-34. Genotypes that were obtained from these seeds were observed and high selection was done with 75%. Among selected genotypes, B clones were obtained with vegetatively propagation studies.

Keywords: *Dianthus* L., Variety development, Outdoor plant, Clonal selection.