

Determination of the Effects of Different Doses of Phosphorus and Humic Acid Application on Yield and Yield Components in Işık and Seçkin chickpea (*Cicer arietinum* L.) Cultivars

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Aim of the study: The research was carried out in the research fields of Siirt University, Faculty of Agriculture, as a one-year field experiment according to factorial design in randomized complete blocks during 2015-2016 growth season. This section must describe the main objective of the current study

Material and Methods: Işık and Seçkin chickpea cultivars, which are well adapted and intensively cultivated, were evaluated in the study. Three different doses of phosphorus (3 kg da-1, 6 kg da-1, 9 kg da-1) and the optimal recommended doses of nitrogen fertilizer and humic acid for chickpea were applied. No application was done on control plots. In the study, plant height, number of main branches, height of the first pod, number of seeds per plant, weight of the pod per plant, weight of the grain per plant and grain yield were measured. This section must describe material and methods used in the current study

Results: In the results obtained from the research, the highest grain yield was 80 kg da-1 in 9 kg da-1 phosphorus application from the cultivar Seçkin, while the lowest grain yield was obtained on control plots and again from cultivar Seçkin with 48.9 kg da-1. In this study; the highest grain yield was obtained from Seçkin chickpea cultivar with 9 kg da-1 phosphorus application, while increased doses of phosphorus application was found to be effective on plant growth and grain yield. However, in order to validate the findings obtained in this research, it is suggested to make a second year field evaluation. It is believed that higher doses of phosphorus application in future studies may lead to an increased grain yield.

Keywords: Chickpea, phosphorus, humic acids