

**ESTIMATES OF BROAD-SENSE HERITABILITY FOR YIELD  
AND YIELD CRITERIA IN CHICKPEA (*Cicer arietinum* L.)**

Hüseyin ÇANCI<sup>1</sup>, Tolga YILDIRIM<sup>2</sup>, Cengiz TOKER<sup>1</sup>✉

<sup>1</sup> Department of Field Crops, Faculty of Agriculture

<sup>2</sup> Department of Biology, Faculty of Arts and Sciences,

Akdeniz University, 07058 Antalya

✉ toker@akdeniz.edu.tr

**ABSTRACT**

Forty-one chickpea (*Cicer arietinum* L.) genotypes were tested for following traits and broad-sense heritabilities (H) were estimated, plant height (PH), first pod height (FPH), number of pods per plant (P/P), seed yield (SY), biological yield (BY), harvest index (HI), 100-seed weight (SW), days to flowering (DF) and days to maturity (DM). Based on the Analysis of variance (ANOVA), significant genotypic differences were found all traits except P/P and SY. Almost no genotype x year interactions were detected except SW and DM. Based on the heritability values, SW (94%) and DF (96%) were the most stable traits; while P/P (68%), BY (68%), and SY (69%) were the most affected traits. It was concluded that SW and DF could be used as selection criteria in early generation in chickpea breeding programs due to their stability.

**Key words:** Chickpea, *Cicer arietinum*, heritability, yield criteria.