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## A Preliminary Study on the Screening of Mungbean (*Vigna radiata* (L.) Wilczek) Genotypes for Adaptation Ability and Yield Potential

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### Abstract

Food legumes are the main components of dryland cropping systems in Turkey. Chickpea, lentil and dry bean are three important commercial food legume crops in the country. Turkey was one of the largest pulse producer and consumer countries during the 1980's in the world. Nowadays, even though Turkey is a pulses producer country, it imports a large amount of pulses from rest of the world. Farmers use limited inputs in production of pulses due to their low purchasing power, high cost of certified seed and fertiliser, and also low market prices. There is an increasing demand for mungbean.

This study was conducted at Faculty of Agriculture, Ondokuz Mayıs University, Samsun, Turkey. Field experiment was arranged in completely randomised block design with four replications using 20 mungbean genotypes in 2010. Plant height, first pod height, dry weight of root and straw, pod number per plant, pod length, number of seeds per pod, 100-seed weight and seed yield ( $\text{kg ha}^{-1}$ ) were determined.

Mungbean genotypes were significantly different for 100-seed weight and seed yield. CN95, CD3, Basanti and VB92 gave the highest seed yield (1120.51, 955.00, 902.91 and 808.01  $\text{kg ha}^{-1}$ , respectively). The highest 100-seed weight (6.26 g) was determined in CN95 and this was followed by KPS<sup>-1</sup> and KPS<sup>-2</sup> genotypes with 6.20 and 6.17 g. Study results revealed that mungbean can be grown in the Middle Black Sea Region of Turkey. Comprehensive and comparative researches should be conducted in the dryland conditions to be able to recommend mungbean cultivation for chickpea and lentil sowing areas.

**Keywords:** Mungbean, *Vigna radiata* genotypes, yield