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Developing soybean variety for high yield and quality for the main crop conditions in Turkey

*Pinar Cubukcu**, Ministry of Food Agriculture and Livestock, Eastern Mediterranean Agriculture Research Institute, Adana, Turkey

Celile Aylin Oluk, Ministry of Food Agriculture and Livestock, Eastern Mediterranean Agriculture Research Institute, Adana, Turkey

Ahmet Korhan Sahar, Ministry of Food Agriculture and Livestock, Eastern Mediterranean Agriculture Research Institute, Adana, Turkey

Murat Reis Akkaya, Faculty of Engineering and Natural Sciences, Adana Science and Technology University, Adana, Turkey

Ahmet Nedim Nazlıcan, Ministry of Food Agriculture and Livestock, Eastern Mediterranean Agriculture Research Institute, Adana, Turkey

This study was conducted in Eastern Mediterranean Agricultural Research Institute, between 2004-2016 years in *Adana* Turkey. The objective of this research was to develop high yielding and quality soybean varieties for *Cukurova* conditions at the main crop condition. In this breeding program crossing breeding method was used that *Nazlıcan* and JMS-2382 soybean varieties were parents. Crossing was made in 2004 and harvested F1 seeds. After crossing, plant selection was made according to Pedigree selection method between F2-F5 stages. The single plants were selected according to breeding objective. Field trials were performed in a randomized complete block design with three replications in 2015 at the main crop condition. Plant height, height of first pod, pod number per plant, 1000 seed weight, seed yield, days to maturity, oil content and protein content were evaluated. According to data, investigated characters between standard cultivars and lines were found statistically significant. Results showed that CU04-122 had higher seed yield (5619,0 kg/ha) and protein content (42,62%) than the other lines and control varieties in 2015. For this reason, CU04-122 was considered as a candidate line in breeding for high-yielding variety with high protein content.