



Registration of “Topçu” Dry Bean (*Phaseolus vulgaris* L.) Variety

“Topçu” dry bean variety was developed by Transitional Zone Agricultural Institute and registered in 2016. Eskişehir-855 dry bean variety, one of the parents of Topçu is in dwarf growth form and horoz grain type. Although, it is a very good variety in terms of quality criteria, it has been removed from seed production programs due to its sensitivity to bacterial halo blight (*Pseudomonas syringae* pv. *syringae*) disease. In order to transfer the resistance genes against bacterial halo blight disease (*Pseudomonas syringae* pv. *syringae*) to Eskişehir-855 variety, it was hybridized with lines 4F-2834 and 4F-2832. In addition, in the continuation of the studies, in order to increase the tolerance of Eskişehir-855 variety against both bacterial and viral diseases, crosses were made with lines 4F-2834 and 4F-2805. As a result of these two crosses, Eskişehir 855/4F-2834-39//4F-2832/3/4F-2832 pedigree line and Eskişehir-855/4F-2834-39//4F-2805/3/4F-2805 pedigree line which were obtained using single plant selection method was hybridized in 2003.

Then, a single plant selection was made at stage F_5 in 2008 and this material was taken to yield trials in 2011.

Topçu dry bean variety is dwarf (39-58 cm) in growth form and the first and only dermason (rowbean) type dry bean variety in our country. Having a dwarf growth form makes it suitable for harvesting with machinery and facilitates cultivated in large fields. The number of days of flowering varies between 39-71 days and the number of physiological ripening days between 107-124 days.

Although, its grain size is smaller than the other bean varieties of dwarf type, its yield capacity is higher than the others. The average yield in the registration trials is 200.2 kg da⁻¹. Topçu is recommended for dry bean cultivating areas.

It has been observed that Topçu has a medium tolerance to leaf halo blight and root rot diseases. 100 seed number, hydration capacity, swelling index, cooking time and protein rate of Topçu are between 25-33 g, 0.29-0.32 g/grain, 2.05-2.17%, 39-46 min. and 22.3-22.7%, respectively and its cooking flavor is quite good. Breeder material and gradual seed production are conducted by Transitional Zone Agricultural Research Institute (TZARI).

Figure 1. Field appearance, pod and grain of Topçu dry bean variety. (Original)



Evren ATMACA

Transitional Zone Agricultural Research Institute,
26001, Tepebasi, Eskisehir, Turkey.

Corresponding author e-mail:
evren.atmaca@tarimorman.gov.tr

References and Notes

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