



## Registration of “Sayım 40” Winter Barley (*Hordeum vulgare* L.) Variety

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The Central Research Institute for Field Crops developed the "Sayım 40" winter feed barley (*Hordeum vulgare* L.) variety using the bulk selection method after a bi-parental cross. The cross of the variety was made in the 2001-2002 growing season and its pedigree includes Sunrise/Tokak 157/37 varieties. The segregating materials between the F<sub>2</sub> and F<sub>5</sub> progenies were subjected to natural selection in the ecological conditions of Ankara, then single spike selection was performed on the F<sub>5</sub> progeny. Preliminary and regional yield trials were conducted under different environmental conditions throughout of Central Anatolia and Transitional regions. Due to its outstanding tillering capacity and high grain yield potential, it was selected among the other lines and offered for registration with line number ‘Anka-09’. The Variety Registration and Seed Certification Center carried out 2019 and 2020 years registration trials. After two years of testing, the line ‘Anka-09’ ranked first place with a 5.68 t ha<sup>-1</sup> grain yield, which is 22.2% more than checks average (4.64 t ha<sup>-1</sup>) in the Central Anatolian Dry Barley Registration Trials. Based on these results, it was registered as ‘Sayım 40’ and included in the National List of Varieties in 2021 (Anonymous, 2021).

Sayım 40 is a two-rowed feed barley cultivar,

having winter growth habit. It has a moderately late and uniform heading date. Spikes have medium length, and their plant heights are 80-100 cm depending on the growing conditions. The kernels are white and highly homogeneous (Figure 1). According to the quality results obtained from the registration trials, hectoliter weight varies between 63.4-70.8 kg hl<sup>-1</sup>, 39.0-42.3 g for 1000-kernel weight, 13.4-14.2% for protein content, and the ratio of plump kernels (>2.5 mm sieve) is between 48.2% and 69.0%. Sayım 40 variety has been moderately resistant to scald and barley leaf stripe diseases. Sayım 40 is recommended for winter sowing in dry and semi-dry areas of Central Anatolia and Transitional regions. Certified seed production rights of the variety have been transferred to The General Directorate of Agricultural Enterprises (TİGEM).

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### References and Notes

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Figure 1. General view, spike, and kernels of Sayım 40 variety. (Original)