



Registration of "Orak 22" Barley (*Hordeum vulgare* L.) Variety

İrfan ÖZTÜRK

Trakya Agricultural Research Institute, Edirne, Turkey

* Corresponding author e-mail: irfan.ozturk@tarimorman.gov.tr

Citation:

Öztürk İ., 2022. Registration of "Orak 22" Barley (*Hordeum vulgare* L.) Variety. Ekin J. 8(2):152.

Received: 12.04.2022

Accepted: 20.05.2022

Published Online: 31.07.2022

Printed: 31.07.2022

Orak 22 is two rowed barley (*Hordeum vulgare* L.) variety developed by Trakya Agricultural Research Institute and registered in 2022. Orak 22 is developed by crossing S110/Robust//Quına/3/Ch1a.73T/4/Cabuya/5/NS 529 with TEA2370-0T-0T-31T-9T-0T in pedigree method. Crossing was made in 2007 and yield test began in 2014-2015 growing year.

Orak 22 is two rowed cultivar and spike is moderately long, and compact. It resembles cultivar Harman. Orak 22 is a medium-tall cultivar, similar to Sladoran, Yaba and Ocak. Plant height is between 75 and 110 cm depending on the growing conditions. It is medium early and as it has good adaptation ability, it has been grown throughout Trakya-Marmara and transitional zone region of Turkey. It gives high yield both on fertile and less fertile soils. It has resistance to winterkilling and is tolerant to medium drought conditions. Orak 22 is highly tolerant to net blotch (*Pyrenophora teres*), scald (*Rhynchosporium commune*), and powdery mildew (*Blumeria graminis* f. sp. *hordei*).

Its yield potential is high however, high yield can be obtained if environmental conditions are favorable and applied good agronomic practices. The highest grain yield obtained was 10.560 kg ha⁻¹ in Edirne location in 2019-2020 growing years. Mean yield of the variety testing experiment was 7.575 kg ha⁻¹ in Trakya growing conditions. Suggested planting rate is between 450-500 seeds/m².

Its grain feeding quality is good. The mean values of some qualities of the variety testing experiment (2020 and 2021) are; test weight 63.7-71.6 kg/hl, thousand kernel weight 31.4-46.5 g, protein content 10.2-14.8%, and sieve value 37.6-95.0%. The highest quality values during 2018-2019 growing seasons before of the variety testing experiment were; 1000-kernel weight 48.3 g, test weight 72.0 kg, protein content 12.4%, and sieve value 87.2%.

Pre-Basic and Basic seeds of the Orak 22 cultivar have been produced by Trakya Agricultural Research Institute. Certified seed of the Orak 22 are produced by both private companies and state farms.



Figure 1. Spike (a and b) and grain (c) of the Orak 22 cultivar. (Original)

References and Notes

- Anonymous, (2022). Trakya Bölgesi iki sıralı arpa tescil raporu, Ankara, 2022. (in Turkish, unpublished)