

## Registration of “Aytenabla” Bread Wheat Variety

Aytenabla, moderate hard red winter wheat (*Triticum aestivum* L.) was released (Figure 1) in 2019 by Central Research Institute for Field Crops. Aytenabla, a semi-dwarf cultivar is adapted to Central Anatolia Regions which receives low to intermediate rainfall (300-350 mm average annual precipitation). It is characterized by high grain yield, moderate resistance to yellow rust, and medium grain quality. The pedigree of Aytenabla is ES8-24//KS82W409/SPN/3/AKSEL 2000/4/TOSUNBEY/DEMİR 2000 and YA: 25451 F<sub>1</sub> Double Haploid (DH). The crossing took place in 2011 and yield trails began in the 2013-14 growing seasons. Application for registration of Aytenabla bread wheat variety was submitted to the Seed Registration and Certification Institute in 2016. This project aimed to obtain DH pure lines by using anther culture technique. This technique is utilized to shorten the breeding process. Aytenabla is the first registered bread wheat cultivar developed with

this method in Turkey. The named cultivar has been developed in 8 years where it would normally take up to 12 years with traditional breeding techniques.

The average yield of the cultivar varied from 3000-7000 kg ha<sup>-1</sup> in semi-arid areas of the Central Anatolia and transitional regions without irrigation. It was the top-yielding cultivar with 4950 kg ha<sup>-1</sup> in yield trails during the registration process. It yielded 16.4% above the mean of the checks. Cv. Aytenabla's bread-making quality values are thousand grain weight: 29.4-35.3 g, hectoliter weight: 76.1-80.7 kg/hl, protein content: 12.3-16.4%, zeleny sedimentation: 32-61 ml, alveograph energy value: 167-280, water absorption: 58.2-60.8%, flour yield: 63.0% 72.4, wet gluten: 34.5-42.9%, dry gluten: 11.4-14.1%, and the gluten index: 58.5-66.7%.

Aytenabla has both better quality characteristics and higher yield than Bayraktar 2000 which is the most produced cultivar in semi-arid areas in Central Anatolia.

Figure 1. Spike and grain of the Aytenabla cultivar



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### References and Notes

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