

New winter barley variety

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Date: 21.10.2016 *Issue:* 10/2016



The new barley variety “Achilles” has been developed by the Institute of Agriculture - Karnobat. It is characterized by good productivity potential and is entirely suitable for the brewing industry. Bulgarian barley varieties are bred for the specific conditions of our country, which makes them preferred by domestic farmers.

The winter barley variety “Achilles” has been bred at the Institute of Agriculture - Karnobat by the team of authors Prof. Marina Gramatikova, PhD, Assoc. Prof. Boryana Dyulgerova, PhD, Prof. Dragomir Valchev, PhD, and Assistant Toshka Popova. By order of the Minister of Agriculture and Food Desislava Taneva, the barley has been officially recognized and entered into the National Variety List as a new winter two-row barley.

The variety is characterized by very good productivity potential, it is medium-early maturing and has high winter hardiness and high susceptibility to lodging. According to data from the Executive Agency for Variety Testing, Field Inspection and Seed Control, “Achilles” is resistant to diseases such as brown and stem rust, as well as to powdery mildew. The grain of the new variety is large, with a high hectolitre weight and is suitable for the

purposes of the brewing industry. It can be grown throughout the country, provided that the agronomic requirements for winter barley grain production are observed.

The breeding of winter barley at the Institute of Agriculture - Karnobat started in 1961. A breeding programme with two directions was adopted / for spring and for winter biotypes. By 1990, 13 winter barley varieties had been developed. Of these, only Obzor (1983) became permanently established in production and currently continues to be the main variety in the country and the standard in State Variety Testing.

After 1990, the feed varieties Zherun (1991), Veslets (1994), Panagon (1994), Aheloy 2 (1996) and the malting varieties Korten (1993), Aster (1994), Perun (1996) and Emon (1998) were recognized, and after 2000 a further 11 new varieties were recognized - the malting varieties Orpheus (2007) and Lardeya (2007), of which Orpheus is also the first Bulgarian drought-tolerant winter barley, Zagorets (2008), Imeon (2008), Asparuh (2009), Kuber (2009) and Sayra (2010). In 2010, the first six-row feed barley IZ Bori was released, and in 2011 - the winter varieties Bozhin and Devinia (2011). The most recent breeding achievements of the scientists from Karnobat are Sitara (2014) and Achilles (2015).

Barley is one of the oldest crops cultivated in the world. Every year in Bulgaria about 250,000 ha of barley are sown, and over 90% of these areas are occupied by varieties developed at the Institute of Agriculture - Karnobat. Farmers from Moldova, North Macedonia and Türkiye have shown interest in the Institute's varieties. The Institute also tests barley varieties developed in Western Europe. These varieties are adapted to conditions where precipitation is significantly higher and winters are milder compared to Bulgaria. In contrast, Bulgarian barley varieties are bred for the specific conditions of our country, which makes them preferred by domestic farmers.