

**ADAPTABILITY OF BARLEY GRADES OF THE OMSK AGRARIAN SCIENTIFIC CENTER
SELECTION BASED ON THE MASS OF 1000 GRAINS**

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Summer barley is the second most important (after wheat) grain in Russia. In the Omsk region it is allowed to use 9 grades of barley, selected at the Omsk Agrarian Scientific Center. One of the leading structural elements defining efficiency of a grade is the mass of 1000 grains which can be accepted as a criterion of adaptability as this parameter is a cumulative sign characterizing the result of the 'genotype × environment' interaction. The purpose of the study – characteristic of summer barley grades adaptability by the criterion «the mass of 1000 grains» in the conditions of Omsk Priirtyshje from 2011 to 2017. The object of the study – 11 highly productive grades of summer barley (selection of the Omsk Agrarian Scientific Center) recommended for cultivation in this region and resistant against droughts, waterlogging, grain smut. L. A. Zhivotkov adaptability coefficient, the index of the environment conditions, coefficient of ecological plasticity and nonlinear deviations from the line of regression, Dragavtsev V. A. multiplicativity coefficient, resistance to stress and compensatory ability were calculated. Calculation of the grades adaptability with several techniques suggests using of the ranging principle with the total assessment based on the sum of ranks of each grade, considering that the first rank is higher. According to the results in the studied set of summer barley grades the maximum resistance to the varying conditions of cultivation had Podarok Sibiri, Sasha, Siberian avangard, Omskij 91, Omskij 96, Omskij 100 and Omskij 90 (sum of ranks from 21.0 to 33.0).

Keywords: summer barley, weight of 1000 grains, stability, plasticity, resistance to stress, adaptability, rank, regression coefficient, multiplicativity coefficient.