The study of an introgressive common wheat line with the T3DS.3DL-3SL translocation from Ae. speltoides

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A selection and genetic study of the introgressive line of common wheat 4567RD obtained using a synthetic genome-substituted form Avrodes (BBAASS) was carried out. Using the method of fluorescent *in situ* hybridization (FISH), the wheat-rye translocation 1RS.1BL was identified in the line, as well as the previously unstudied translocation T3DS.3DL-3SL from *Aegilops speltoides* Tausch. Presence of 1RS.1BL confirmed by molecular methods using the SMC9 DNA- marker. Along with this, the line consist markers Lrk10 and S30-13L/AGA7-759R linked to leaf rust resistance genes *Lr10* and *Lr51* respectively. The leaf rust resistance level ranged from 1 (resistant) to 2 (moderately resistant) over the years. The line differed from the recipient cultivars in the spindle shape of the spike and had significant differences in such characteristics as the length of the spike and the number of spikelets in the spike. The yield components were at the level of the values obtained for the high yielding variety Krasnodarskaya 99. The line has high protein and gluten content of 15.9% and 32.4%, respectively. The score of bread maiking cvoliti was 4.5 points.

The main publications of authors on the subject of the abstract:

Давоян, Э.Р. и др. Изучение интрогрессивных линий мягкой пшеницы с генетическим материалом Aegilops tauschii по устойчивости к листовой ржавчине // Вавиловский журнал генетики и селекции. 2018. Т. 22. № 1. С. 97-101.

Davoyan, E.R. et al. Allelic variants for Waxy genes in common wheat lines bred at the Lukyanenko national grain center // Vavilov Journal of Genetics and Breeding. 2019. T. 23. № 7. C. 910-915.

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