

**TRITICALE BREEDING IMPROVEMENT WITH THE USE OF SPELT WHEAT  
(*TRITICUM SPELTA* L.)**

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**Abstract.** The aim of the research was to show the possibility of triticale breeding improvement with the use of spelt wheat and to evaluate created forms for the main agronomic traits. Implementation of this goal was done by crossing of threespecies triticale and spelt wheat and stabilization of obtained hybrid forms. The created diversity of triticale forms was divided into three groups according to plants height: medium-stem (plant height 100–120 cm), low-stem (plant height 80–100 cm) and short-stem (height of plants 60–80 cm). Four best samples in each plants group were selected and tested more detail. The standard for a medium-stem group samples was variety of winter triticale Khibodar Kharkivskii. For short-stem and low-stem group samples the standard was variety of winter triticale Alkid. The evaluation of samples productivity in the experiment was studied by placement the test variants in latin square. As a result of the research the possibility of triticale breeding improvement with the use of spelt wheat and stabilization of obtained offspring was shown. Developed general technological scheme of triticale breeding improvement. Medium-stem sample 455 (protein content 13.9 %, gluten 30.2 %) and short-stem sample 471 (protein content 13.6 %, gluten 29.5 %) were selected. Low-stem sample 484 which combines high grain yield (7.1 t ha<sup>-1</sup>) with high protein (12.4%) and gluten (26.9%) content and dwarf sample 473, which has complex resistance to diseases and characterized by high grain yields, protein and gluten content were selected. Varieties Navarro and Strateg, were selected and transferred to the State Scientific and Technical Expertise (applications № 15022003 and №15022004).

**Key words:** *threespecies triticale, spelt wheat, crossing, protein content, gluten content, productivity.*