THE HARDINESS LIKE A CHARACTERISTIC OF THE ALIEN CYTOPLASM WHEAT AND THEIR HYBRIDS

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Under condition of changeable winter weather at the south-west of Ukraine, one of the most important characteristic of common wheat is hardiness. This complex characteristic allows to value the adaptation of genotypes under variable conditions of the environment. Wide crosses are widely used for improvement the common wheat, they are used for transferred numerous traits tolerance to abiotic stresses and pest resistance. The resistance to the low temperature (frost-resistance), to the wetting, to the lay of ice and other traits are components of the hardiness. Following wide crosses, nuclear-cytoplasm chimeras arise and nuclear genome of one of the parents is functional at the alien-cytoplasm environment.

The purpose of our investigation was to analyze the possibility of alien cytoplasm influence on such characteristic as hardiness of common wheat of cultivars Mironovskaya 808 and Donskaya poluintensivnaya and theirs hybrids with wheat-alien amphiploids Elytricum and AD (^e. *ventricosa* x *T. dicoccum).*

Under condition of winter of 2005/2006 years hardiness of different lines of wheat and theirs hybrids varies from 51,6 % to 95,1 %; the hardiness of plants under condition of winter 2006/2007 years vary from 57,7 % to 97,8%. There are any (positive or negative) general hardiness effect have been discovered for all nuclear genomes at the borders of investigated complex of alien cytoplasm in comparison to euplasm by the analysis of variants. The interaction between alien cytoplasm and nuclear genome have had the determinant influence to the hardiness of wheat with alien cytoplasm, such as in wheat-alien amphiploids. This has been shown by the pair comparison of investigated forms with the alien cytoplasm wheat and their hybrids with wheat-alien amphiploids.

ЗИМОСТОЙКОСТЬ КАК ХАРАКТЕРИСТИКА АЛЛОПЛАЗМАТИЧЕСКИХ ПШЕНИЦ И ИХ ГИБРИДОВ

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Провели двухлетнее исследование зимостойкости набора аллоплазматических пшениц и их гибридов с пшенично-чужеродными амфиплоидами Elytricum и АД (^e. *ventricosa* x *T. dicoccum).* Установлена зависимость зимостойкости растений от взаимодействия аллоплазмы и ядерного генома в различных комбинациях.

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