

Polymorphism of HMW-GS in Collection of Wheat Genotypes

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Abstract : Processes of plant breeding, testing and licensing of new varieties, patent protection in seed production, relations in trade and protection of copyright are dependent on identification, differentiation and characterization of plant genotypes. Therefore, we focused our research on utilization of wheat storage proteins as genetic markers suitable not only for differentiation of individual genotypes, but also for identification and characterization of their considerable properties. We analyzed a collection of 102 genotypes of bread wheat (*Triticum aestivum* L.), 41 genotypes of spelt wheat (*Triticum spelta* L.), and 35 genotypes of durum wheat (*Triticum durum* Desf.), in this study. Our results show, that genotypes of bread wheat and durum wheat were homogenous and single line, but spelt wheat genotypes were heterogenous. We observed variability of HMW-GS composition according to environmental factors and level of breeding and predict technological quality on the basis of Glu-score calculation.

Keywords : genotype identification, HMW-GS, wheat quality, polymorphism

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