

**PROTEIN MARKERS AS A TOOL FOR ACCELERATING THE SALE OF
MAIZE HYBRIDS OF THE MOLDOVAN BREEDING FOR EXPORT**

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In the Republic of Moldova (RM), maize occupies a leading position in the export of seeds to the Republic of Belarus (RB). The seed lots sold in RB can be accepted for sale only after the Moldovan side submits certificates issued on the basis of the SM-2003 standard by the *Central Phytosanitary Laboratory* of the RM and the corresponding *matrices of electrophoretic (EF) passports* of parental forms of hybrids submitted for analysis. The developers of the SM-2003 standard have implemented the methodological principles of this standard in the *Seed Quality Testing Laboratory* of the Belarusian State Agricultural Academy that led to the development of a national standard in RB, according to which all seeds of corn hybrids exported from RM are retested for the degree of hybridity in RB. The priority of creating matrices of EF passports belongs to the Moldovan side, however, the creation of EF matrices is carried out on request. Therefore, in 2020, at State Agrarian University of Moldova began an experimental development of a Project, the working idea of which is to create an EF database of passports for exported corn seed material, developed on the basis of the national standard SM-2003 for its use at the international level. As a material for the study of the protein complex of seeds, hybrids of a new generation and their parental forms, selected according to the greatest commercial demand in the Republic of Moldova and abroad, have been proposed.

The implementation of this project is carried out at the molecular-biochemical level: the study of the EF of protein profiles of seeds of maize hybrids and their parental forms is carried out, followed by the creation of digital files on their basis with the image of EF spectra of maize hybrids. The final product of the implementation of this project will be the Catalog of EF passports of parental forms and hybrids of maize, zoned in the Republic of Moldova and exported abroad in the period 2006-2025.

After registration, the created catalog will be handed over for official use to the certification centers of Moldova, Belarus and other foreign countries, as well as to seed producers of the corn-growing industry of RM, which will improve the efficiency of timely export and provide a guarantee of the quality of seed production.