

DNA ANALYSIS OF ROMANIAN WHEAT CULTIVARS FROM THE VEGETAL GENETIC RESOURCES BANK SUCEAVA

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Abstract

Development of improved technology, new high-yielding varieties, mechanization, enhanced use of chemical and fertilizers led to increased wheat yields, but this development adversely affected agroecology and labor demands in agriculture. Wheat (*Triticum aestivum* L.) is the most important crop plants, with a significant dietary importance, all due to the high carbohydrate and protein content of the grain and the ratio between them, which satisfies the requirements of human nutrition. Also, it is one of the ancient crops of agronomic importance, having been taken into cultivation by man about 10-12 thousand years B.C. In Romania, wheat cultivation dates back more than 2500 years. On the shores of the Black Sea, on the sites of ancient cities, coins have been found with the image of the goddess Demeter inscribed on one side and wheat ears on the other. The objectives of the research paper are the DNA-based genetic analysis of wheat (*Triticum aestivum* L.) and einkorn (*Triticum monococcum*) cultivars belonging to different subspecies or varieties. This study used 50 wheat genotypes, containing local populations, varieties and breeding material provided by the Vegetal Genetic Resources Bank "Mihai Cristea" Suceava.

Key words: (wheat, DNA, genotypes)