

OPTIMIZATION OF THE CONDITIONS FOR AN EFFICIENT GERMINATION OF AGED NON-GERMINATING WINTER SOFT WHEAT SEEDS

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The germination capacity of aged non-germinating wheat (*Triticum aestivum* L. cv Obriy and Odeska 132) seeds and the isolated embryos from the aged seeds have been investigated. Wheat seeds were kept under laboratory conditions for 10-11 years. Excised embryos and whole seeds of 0 per cent germination were placed on different hard culture media: 1) 0,8 % agar; 2) 0,8 % agar + 2 % sucrose; 3) MS nutrient medium; 4) MS nutrient medium supplemented with hormone.

The results of this study indicate that some of aged non-germinating seeds produced seedlings, when they were placed on hard media. The quality and quantity result of the seedlings depended on the type of the medium. It has been shown, that seeds which belonged to presented varieties of wheat formed 10-24 % of normal seedlings, when they were placed on agar (0.8 %) medium. Quantity result of seedlings has decreased (8-16 %), when seeds were placed on the agar medium supplemented with sucrose. It has been shown, that 4 - 12 % of the excised embryos of aged non-germinating seeds of varieties Odeska 132 produced plumule and radicle, when they were placed on hormone free MS nutrient and on agar media. Quality and quantity result of seedlings has decreased, when embryos were placed on MS nutrient medium supplemented with hormone. Germination of the embryos of aged non-germinating wheat seeds was the most efficient on the agar medium supplemented with sucrose.