VIABILITY AND STABILITY OF FUNGI ISOLATED FROM LAKE LA IZVOR AFTER LYOPHILIZATION

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Lyophilization is one of the safest and most durable methods of preservation of the viability and stability of the biological properties of microorganisms.

Twenty strains of aquatic fungi, representatives of the genera: *Penicillium*, *Talaromyces*, *Trichoderma*, were lyophilized. The evaluation of the viability of fungal strains after lyophilization demonstrated that the viability of aquatic fungal strains, isolated from water, varies between 96.7% and 99.2%. The strains isolated from the biofilm, represented by the genera *Talaromyces* (2 strains) and *Trichoderma* (2 strains), also recorded a high viability after lyophilization. Their viability ranged from 96% to 97.7%. Also, the strains of fungi isolated from the silt, belonging to the genera *Talaromyces* (3 strains) and *Trichoderma* (5 strains), recorded a high viability after lyophilization, varying between 95.8 - 99%. A lower viability, after lyophilization, was recorded only in the strain *Penicillium* sp. (N12), which constituted only 92.8%, compared to the initial one, until lyophilization.

As a result of examining the morpho-cultural characteristics (shape, size, colony edge, color, reverse, etc.) of aquatic microorganism cultures after lyophilization, no significant changes were detected.

Key words: lyophilization, fungi, aquatic environment, viability, morpho-cultural characteristics