Ocena morfologiczna, cytologiczna i molekularna międzygatunkowych mieszańców F1 *A. galanthum* x *A. cepa*

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Morphological, cytological and molecular evaluation of interspecific F1 (*A. galanthum* x *A. cepa)* hybrids

Summary

The interspecific F1 (*A. galanthum* x *A. cepa)* hybrids were obtained via *embryo rescue* technique. For hybrids and parental plants, the morphological traits and pollen fertility evaluation were made. The tested F1 hybrids were similar to the maternal form regarding to the leaves' length, while the number of bulbils leaves and stem diameter were similar to the paternal form. Pollen viability test showed that F1 hybrid plants exhibited complete or partial male sterility. Cytological observations of microsporogenesis and tetrads revealed no disturbances in meiosis; however, the presence of dyads, tryads (22%) and tetrads degeneration (1%) was recorded. The analyses of chloroplast DNA proved that all F1 progenies examined possessed the cytoplasm of *A. galanthum*. We concluded that the sterility or low pollen viability of F1 hybrids is caused by the presence of *galanthum* cytoplasm.

Key words:

interspecific hybridization, *Allium*, embryo rescue

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