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An Efficient Micropropagation to Obtain the Disease-free Bulbs from Scales for Cryopreservation in *Lilium*

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Cryopreservation is one of the ideal and suitable methods for long-term storage of plant germplasm. The plant contaminated with diseases and pathogens are decreased the multiplication rate, survival rate and high quality of plants after cryopreservation. The aim of this work was to improve a micropropagation method for lily in Korea, which are cultivars and indigenous plant. In the last process of rinsing scales after surface-sterilization, we tried to control the diseases and pathogens lived within the tissue by rinsing in 0.03% sodium hypochlorite (NaClO) instead of sterile distilled water. Bulb scales of *Lilium* were cultured in vitro on MS medium supplemented with Plant Preservative Mixture (PPM). The newly small bulb formed from bulb-scales was transferred to MS medium. We checked the non-contamination and survival rate after 2 weeks in culture. Non-contamination was shown to be 70 to 90% in formed small bulbs. This study will help to mitigate microbial contamination in *Lilium* species micropropagation for cryopreservation.

Key words: *Lilium*, Bulb, Scales, Micropropagation

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