

Title Effects of cold storage and different pulsing treatments on postharvest quality of cut OT lily 'Mantissa' flowers

Author Geng X.M., Liu J., Lu J.G., Hu F.R, and Okubo H.

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Abstract

Effects of the pulsing solution containing silver thiosulphate (STS) or spermidine on postharvest quality of cut OT Lily 'Mantissa' (an Oriental x Trumpet hybrid) flowers were investigated. The application of spermidine prolonged the inflorescence longevity and improved the quality of cut flower of OT Lily 'Mantissa' in the same way as the STS treatment. The pulsing treatments reduced water dissipation, maintained membrane structure and function, and delayed the accumulation of malondialdehyde (MDA) and proline. The results indicate that spermidine can be used as a commercial preservation solution for cut lilies. Cold treatment reduced the vase life and lowered the quality of cut flower. The pulsing treatment containing anti-ethylene improved the postharvest quality, and the cold-stored cut flowers showed more improvements in the postharvest quality than the cut flowers without cold storage.