

Title Cut flower quality by sudden abnormal temperature during long term storage treatment of lily bulbs

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Abstract

For the year-round cut-flower culture in Korea, the lily bulbs harvested in fall have been to store for about 8 months at -1.5°C . However, the conventional low temperature storage rooms were generating the various problems for the mechanical break-down. Moreover, the abnormal low-or high-temperature greatly would influence to the scale and the meristem tip of bulbs stored. Accordingly, the purpose of this study was to investigate the critical line of bulb damage after the artificial temperature treatment during the normal bulb storage at -1.5°C . In the experiment, the treatment time was on 30 Mar, and 30 May, the temperature and the period were setting at -3 , -5 , 15 , 20°C for 3, 5, 7 days, respectively. In the long run, we think that the critical line of bulb damage was at -3°C for 7 days, at -5°C for 3 days, at 15°C for 7 days and at 20°C for 5 days with the artificial temperature treatment in all times, respectively. Because the high-damaged bulbs were generated the growth inhabiting and the physiological disorder (under-leaf malformation etc.) in the field.