

Abstract:

California-grown bulbs of *Lilium longiflorum* 'Nellie White' (23/25 cm, in circumference) were precooled (PC) for 5, 6, or 7 weeks at 2, 5, or 7C. Prior to PC, the percent of bulbs with the meristem off the basal plate was 10, 10, and 0 percent for 2, 5, and 7C, respectively. After PC, the peat moisture content was 55, 43, and 55 percent for 2, 5, and 7C, respectively. Standard greenhouse forcing procedures were used. The fewest greenhouse days to flowering occurred with 6 weeks at 5 and 7C, and 7 weeks at 2, 5, and 7C. The earliest flowering dates were obtained with 5 and 7C with 5 or 6 weeks of PC. The latest dates of flowering were obtained with 2C at 5, 6, or 7 weeks and 5 and 7C for 7 weeks. The highest flower numbers were obtained with 2C with 5 weeks of PC and 7C with 5 and 6 weeks PC. The lowest flower numbers were obtained with 7 weeks of PC at 5 or 7C. The treatment that reduced total plant height was 7C for 7 weeks of PC, but it was not significantly different from six other treatments. The highest leaf numbers were obtained with 5C for 5, 6, or 7 weeks of PC. There was no difference in plant quality among the nine treatments. Thus, early flowering bulbs should be PC at 5C for 5 or 6 weeks; while for late flowering 2C for 5 or 6 weeks should be used.