Title Storage duration and temperature effect dormancy of *Hippeastrum*

Author Jeff S. Kuehny and William B. Miller

Citation Abstracts of 27th International Horticultural Congress & Exhibition (IHC 2006), August 13-19, 2006, COEX (Convention & Exhibition), Seoul, Korea. 494 pages.

Keywords Hippeastrum; dormancy; storage

Abstract

Hippeastrum bulbs are sold in floral markets around the world and are primarily shipped from Israel, Holland, south Africa and Brazil. The shipping time and temperature varies by the country that the bulbs are shipped from and the storage time and temperature also varies by the company that packages the bulbs for retail sale or forcing. These various storage times and temperatures can affect the longevity of the dry bulb after packaging and quality of finished plant. The objectives of this research were to determine the effects of various storage temperatures and durations on emergence and forcing of *Hippeastrum* hybrids. Bulbs were stored at temperatures of 5, 9, 13, 21, and 29°C for 6, 9, 12, and 15 weeks after which time one set was stored at 21°C (packaged display temperature) and the other set forced in the greenhouse. Emergence of leaves and buds when stored at the 21°C display temperature and during greenhouse forcing varied by specific hybrid according to storage duration at 5, 9 and 13°C. Storage at 21 and 29°C resulted in only leaf emergence and no flower bud emergence during the 21°C display temperature and greenhouse forcing. Storage at 5 and 9ºC generally resulted in slower leaf emergence and quicker bud emergence. Content of absicic acid was greatest prior to storage treatments and concentrations decreased the most rapidly when stored at lower temperatures.