

Title Leaf treatments to improve cut flower quality in Easter lily and in Asiatic and oriental hybrid lily cultivars

Author A. Ballarin, D. Prisa, A. Grassotti, G. Burchi and F. Pierandrei

Citation ISHS Acta Horticulturae 847:369-376. 2009.

Keyword *Lilium*; cut flowers; pre-harvest treatments; postharvest quality; vase-life

Abstract

In *Lilium*, flower quality is influenced by environmental factors, such as light, photoperiod and temperature during winter or summer season, which can cause flower abortion, reduction in flower size and stem length, faded colours of leaves and tepals. In this research, the possibility to improve flower quality by means of pre-harvest leaf treatments with simple solutions was studied on different varieties of *L. longiflorum* Thunb., *L. × elegans* Thunb. (Asiatic hybrid lily) and Oriental lilies. The treatments were carried out 20 to 10 days before harvesting with different solutions in comparison with untreated controls. The application of sugars, antioxidants and mineral compounds significantly improved length and diameter of the stems and longevity and size of the flowers. These results clearly demonstrated that the use of simple and easily available compounds can guarantee the production of high-quality flowers even in unfavourable seasons for lily production.