

Title Effect of storage temperature and duration on vase life of cut *Ruscus racemosus* L. foliage

Author S. Pacifici, G. Burchi, A. Del Carlo and A. Ferrante

Citation Book of Abstracts. International Conference on Quality Management in Supply Chains of Ornamentals. 21-24 February, 2012. Golden Tulip Sovereign Hotel, Bangkok, Thailand.

Keywords cut foliages; *Ruscus racemosus* L.; storage temperature; vase life

Abstract

The cut foliages are important fillers in the ornamental compositions. Usually, the vase life is already long enough to satisfy the consumers' needs. However, some cooperatives and commercialization companies would extend as much as possible the storage for covering the periods of production lack. The aim of this work was to evaluate the potential storage ability of cut *Ruscus racemosus* foliages, selected following the commercial requirements. The cut foliages were stored at 4 or 10 °C in vase containing distilled water. After 14, 21 and 28 days of storage, the cut foliages were transferred to 20 °C in controlled environment for vase life evaluation. Immediately after storage, the chlorophyll a fluorescence and sugar (reducing sugars and sucrose) contents were measured. The vase life of cut *Ruscus* evaluated immediately after harvest was 34 days. After 14 days the vase life of cut foliage was reduced to 27-28 days without differences between 4 and 10 °C. The effect of temperature became visible after 21 days of storage. The cut foliage stored at 10 °C showed a vase life of 23 days while those stored at 4 °C showed a slightly reduced vase life, compared with control. After 28 days of storage, the vase life of cut foliage was strongly reduced, 22 and 13 days respectively at 4 or 10 °C, but still acceptable for ornamental use. During storage, the chlorophyll a fluorescence parameter that was able to show the senescence and reduction of quality was the dissipation of energy per cross section DI_0/CS in cut foliage stored at 10 °C. Sucrose significantly declined only in cut foliage stored at 10 °C.