

Effects of vase water additives on postharvest keeping quality of Cordyline (*Cordyline terminalis* (L.) Kunth 'Mike silver') foliage after transportation

M P Hettiarachchi* and J Balas

Institute of Fruit Growing and Horticulture, University of Natural Resources and Applied Life Sciences, Peter Jordan street, 82, A-1190, Vienna, Austria

Various vase water additives (a biocide; 8-HQS, commercial preservatives; Chrysal®, Flora®, Flower fresh™), Standard Vase Solution - SVS) and a biological fertilizer; Biovin®) were evaluated for effect on longevity and foliage quality of cut *Cordyline terminalis* (L.) Kunth 'Mike silver' stems after long-distance transportation. Most effective vase water additives for preventing leaf chlorosis, and maintaining vase life and fresh weight, were Flora and Flower fresh. The stems pulsed with those solutions have an average vase life 6 days longer than stems that were held in water. Stems had an average vase life of only 20.80 d when placed in Chrysal but lasted 27.22 d in SVS. Earliest stems collapse was observed in stems placed in Chrysal. Water uptake, transpiration, leaf colour and chlorophyll fluorescence were positively affected by recutting of stems and refilling of vases. Stems placed in SVS had significantly lower chlorophyll fluorescence yield on day 21 after treatment however there were no differences with other treatments at termination. Lower chlorophyll yield of stems placed in SVS did not affect the vase life (27.22 d) and fresh weight (16.29 g) at senescence. Results indicate that the importance of using appropriate vase water additives for maintaining postharvest quality of cordyline cut stems after long-distance transportation. Of all additives, Flora and Flower fresh were effective vase water additives tested for extending the vase life however SVS and 8-HQS also showed the possibility of replacing commercial floral additives, indicating average foliage quality during vase period.

The study was supported by Austrian Development Cooperation (OEAD) and Institute of Fruit Growing and Horticulture in Vienna, Austria.

* *Present address: Department of Crop Science, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka*

mhettiarachchi@hotmail.com

Tel: 041 2292200