Abstract:

In the current study *Codiaeum variegatum* (L.) Blume 'excellent' grown in Sri Lanka were used to apply postharvest treatments in Vienna, Austria. Stems with 5 or 6 leaves were treated with Standard Vase Solution (SVS), 8-HQS (biocide), Biovin (biological product), commercial preservatives (Chrysal, Flora, Flower fresh) and tap water (control). Foliage stems treated with 8-HQS produced the longest vase life (31.14 d) while the shortest vase life (18.90 d) occurred in Chrysal. There were no significant differences for vase life of foliage stems placed in Biovin, Flora, Flower fresh, tap water or 8-HQS (all around 30 days). Fresh weight of all treatments gradually declined over the vase period. For the investigated period, the differences in fresh weight of stems placed in tap water or floral preservatives were small and nonsignificant. Water transpiration and uptake continuously decreased in the vase period. However, higher transpiration was observed at senescence. Water uptake was positively correlated with vase life of croton. Low leaf tip osmotic potential and low Brix value at leaf base was correlated with lower vase life and general foliage appearance. Leaf colour components and chlorophyll fluorescence did not change significantly. Recutting of stems and refilling of the vases had a positive influence on leaf colour and fluorescence yield. Results indicated that physical quality traits (colour and foliage appearance) were slightly affected by floral preservatives. 8-HQS, Biovin and tap water and commercial preservatives (Flora, Flower fresh) most consistently had a positive influence on vase life, foliage colour and chlorophyll fluorescence yield.