Extending the postharvest life of woody cut stems

L. Greer, J.M. Dole, S.M. Blankenship

Acta Horticulturae 1060: 81-88. (2015)

Abstract

The postharvest life under various handling procedures was determined for nine species of woody cut stems: *Buddleja davidii* Franch. 'Royal Red', *Buxus sempervirens* L., *Hydrangea quercifolia* W. Bartram, *Ilex crenata* Thunb., *Ilex* L. 'Nellie R. Stevens', *Ligustrum sinense* Lour., *Myrica cerifera* (L.) Small, *Pyracantha coccinea* M. Roem., and *Viburnum tinus* L. 'Spring Bouquet'. 1-methylcyclopropene (1-MCP) and 50°C distilled (DI) water produced the longest vase life for *Buddleja*, 6.6 and 6.4 d, respectively, compared to the control of 5.6 d. The 10% sucrose pulse and 1-MCP produced the longest vase life for *Viburnum* of 15.0 and 13.5 d, respectively, compared to the control of 10.0 d, while vase life of stems placed in 50°C DI and tap water was shorter. Ambient (20°C) DI water was optimal for *Myrica* (9.9 weeks), while stems pulsed with 10% sucrose had the shortest vase life of 2.2 weeks. Optimum storage (5°C), light level and duration by species were: *Buddleja* – dark in water for up to 1 week; *Buxus* – light in water for up to 3 weeks; *Hydrangea* – cannot be stored; *Ilex crenata* – light or dark in water for up to 3 weeks; *Ilex* 'Nellie R. Stevens' – light in water for up to 3 weeks; *Ligustrum* – dark in water for up to 3 weeks; *Myrica* – either light or dark in water for up to 3 weeks; *Pyracantha* – any condition for up to 3 weeks and *Viburnum* – either light or dark in water for up to 1 week. The use of floral foam adversely affected vase life of all species except *Buxus. Myrica* vase life was longest with 0% sucrose in the vase solution, while *Ligustrum, Ilex* 'Nellie R. Stevens' and *Viburnum* vase life was longest with either 2 or 4% sucrose. Sucrose in the vase solution had no effect on *Buddleja, Buxus, Hydrangea, Ilex crenata* or *Pyracantha* vase life.