

Title Effects of preharvest conditions on postharvest characteristics of lilies and sunflowers
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Abstract

Subjecting *Lilium* L. 'Dazzle' and 'Vermeer' plants to high humidity during production did not influence cut flower vase life but increased stem length and production time. Vase life, water uptake, stem length, stem diameter, and head diameter of cut *Helianthus annuus* L. 'Sunbright' stems were positively correlated with production time in high humidity. Application of water stress to 'Dazzle', 'Vermeer', and 'Sunbright' during production did not affect vase life at the treatment level; however, in year one water potential readings during the last five days prior to harvest were negatively correlated with vase life in 'Vermeer' and water potential readings from up to 36 days prior to harvest were positively correlated with vase life in 'Sunbright'. Bud number in 'Vermeer' was positively correlated with stem diameter, and stem diameter in both 'Dazzle' and 'Vermeer' was smaller as soil moisture deficit increased. Cut 'Sunbright' stem quality decreased as the soil moisture deficit increased. Vase life in cut 'Vermeer' and 'Sunbright' stems was negatively correlated with the change in fresh weight in both humidity and water stress experiments.