Title The effects of retail display conditions on postharvest performance of cut *Gerbera jamesonii*

Author T.A. Nell, R.T. Leonard and A.M. Alexander

Citation ISHS Acta Horticulturae 847:51-58. 2009.

Keyword *Gerbera jamesonii*; postharvest; scape bending; storage; temperature; vase life; senescence

Abstract

This study evaluated a range of retail temperatures (2, 6, 10 and 21°C) and display times and compared the effect of wet versus dry held flowers during display using floral coolers on the postharvest performance of several varieties of cut *Gerbera jamesonii*. Relative fresh weight after 2 days in retail display was 25 to 38% higher when maintained at or above 6°C compared to 2°C. After 4 days in display, fresh weight continued to increase at 2 and 6°C, while flowers displayed at 10 and 21°C lost 26% and 89% of their fresh weights, respectively, compared to 2 day weights. Displaying Gerbera at or below 6°C promoted severe scape bending (>60°) of several varieties while there was virtually no scape bending when displayed at 10°C. Displaying *Gerbera* in retail display coolers (2, 6 and 10°C) improved vase life up to 44% compared to displaying flowers at room temperature of 21°C, especially when flowers were held more than 2-3 days. 'Sunset' lasted longest at 6°C after 4 days in display, while 'Foske' and 'Mistike' lasted longest at 2°C. No differences in vase life were found among the 3 display temperatures for 'Malibu', 'Primrose' and 'Meriva'. There was no effect of dry compared to wet held flowers on vase life when displayed for 3 days, however, when the display time increased to 7 days, vase life significantly increased 2.5 to 4.2 days for 'Foske' when held dry at all display temperatures, while no differences between wet and dry held flowers were found in 'Meriva'. Flowers displayed wet had a greater incidence of stem collapse in postharvest compared to dry held stems.