

ABSTRACT

Several biochemical and metabolic changes are associated with senescence of cut gladioli, particularly in relation to quality characteristics, including dynamism of carbohydrates. The objective of this study was to evaluate the effect of pulsing and wet cold storage on the starch and sugar biomarkers on cut Gladiolus (*Gladiolus grandiflorus* L. cv. Fado) vase quality. Pulsing treatments of 600-ppm 8-hydroxyquinoline sulphate, plus 5% sucrose solution, versus distilled water, were administered prior to wet cold storage durations of 0 - 5 days, on the cut Gladiolus grown from corms. This was done in the open field at the Horticulture Research and Teaching Field, Egerton University in Kenya, during two successive seasons. There was a significant difference ($P < 0.01$) in total soluble sugars (TSS) and total starch of spikes pulsed with 600 ppm 8 - HQS + 5% sucrose, compared with the control, during the third day in the vase life of the cut flowers. Prolonged vase life of cut spikes was associated with a decrease in total soluble sugars and increase in total starch, as influenced by pulsing and wet storage duration up to 4 days