

Longevity and quality of *Heliconia psittacorum* × *H. Spathocircinata* 'Golden Torch' treated with 8-hydroxyquinoline citrate

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Abstract

This study aimed to evaluate the effect of 8-hydroxyquinoline citrate (8-HQC) on the quality and longevity of heliconia 'Golden Torch' inflorescences stored at $23.9 \pm 1.8^\circ\text{C}$ and $51 \pm 9\%$ RH. The treatments consisted of 0, 100, 200 and 300 mg L^{-1} 8-HQC, evaluated at 0, 2, 4, 6 and 8 days after harvest. The inflorescences were pulsed with 8-HQC for 18 h and subsequently transferred to flasks with distilled water. At every two days, floral appearance, fresh mass, flower opening, chroma and lightness were determined. The floral appearance was influenced by storage time and by the treatment with 8-HQC. However, the values of fresh weight, the flower opening, lightness and chroma were affected only by the number of days in storage. The fresh weight decreased by 1.6% from the first to eighth day after harvest. At the end of the storage time, the inflorescences exhibited two open flowers at the start of expansion. The lightness value increased by 3.4%, while the chroma decreased by almost 4.9% in bracts during storage, indicating the passage of dark orange color to light orange. The 8-HQC did not increase the vase life of inflorescences compared to control. Based on the scale of appearance, the inflorescences treated with 300 mg L^{-1} of 8-HQC had superior vase life compared with the other treatments, within eight days of evaluation.