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# **Influence of ethylene on senescence of *Heliconia psittacorum* × *H. spathocircinata* cv. Golden Torch**

Sandra Oliveira de Souza<sup>1</sup>, Fernando Luiz Finger<sup>1</sup>, Maria Auxiliadora Coêlho de Lima<sup>2</sup>, Agnelli Holanda Oliveira<sup>3</sup>, Ana Cristina N. dos Santos<sup>2</sup>, Ana Carolina S. Costa<sup>2</sup> and José Geraldo Barbosa

<sup>1</sup>Universidade Federal de Viçosa (UFV) – Departamento de Fitotecnia, 36570-000, Viçosa, MG, [ffinger@ufv.br](mailto:ffinger@ufv.br); <sup>2</sup>Embrapa Semi-Árido, Laboratório de Fisiologia Pós-colheita, 56302-970, Petrolina, PE; <sup>3</sup>Universidade Federal da Paraíba – Curso de Engenharia de Alimentos, 58.051-900, João Pessoa, PB.

## **Abstract**

Little is known about the influence of ethylene on postharvest of heliconia flowers. In this work had the goal to determine the sensitivity of cut *Heliconia psittacorum* × *H. spathocircinata* cv. Golden Torch to ethylene through storage. The stalks harvested at commercial stage in Petrolina, PE, Brazil, when had two open bracts and one closed. The stalks were sprayed once with Ethephon (0, 0.1, 1.0, 10, 100 and 1000 mg L<sup>-1</sup> 2-chloroethylphosphonic acid) and then stored for 0, 2, 4, 6, 8 and 10 days at 20.4 ± 3.7°C and 49 ± 11% relative humidity. At every two days, the base of stalks was recuted at 2 cm and the water from the vases were replaced. The experiment was arranged in random block design with four replicates containing four stalks each. Flower longevity, appearance, color chroma and value were reduced with the increase of ethephon concentration and length of storage. Vase life of flowers treated with 100 and 1000 mg L<sup>-1</sup> ethephon limited longevity up to eight and six days, respectively, while the control flowers had a longevity of ten days. Water uptake was drastically reduced from two to four days of storage, remaining stable afterworlds. Stalks treated with 1 mg L<sup>-1</sup> ethephon had higher rate of bract opening. Concentrations of 100 and 1000 mg L<sup>-1</sup> induced a less orange intense in the bracts measured by the Hue angle.