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 P.231 - ETHYLENE ACTION ON INFLORESCENCES OF *Heliconia bihai*

Sandra Oliveira de Souza¹, Maria Auxiliadora Coêlho de Lima², Fernando Luiz Finger¹, Agnelli Holanda Oliveira³, Tainá dos Santos Antão², Sara Fernandes Belém² e Joice Simone dos Santos¹

1. Universidade Federal de Viçosa (UFV) – Departamento de Fitotecnia, 36570-000, Viçosa, MG, sandraosouza@yahoo.com.br;

2. Embrapa Semi-Árido, Laboratório de Fisiologia Pós-colheita, 56302-970, Petrolina, PE;

3. Universidade Federal da Paraíba – Curso de Engenharia de Alimentos, 58.051-900, João Pessoa, PB.

The present work evaluated the sensibility and the influence of the ethylene on the senescence of *Heliconia bihai*. The experiment consisted of two treatments: 0, 0.1, 1, 10, 100 and 1000 mg L⁻¹ ethephon sprayed once and length of storage (0, 2, 4, 6, 8 and 10 days) at 22.4 ±3.1°C and 42 ±12% RH. The inflorescences obtained from a commercial garden (Petrolina-PE) harvested with two open bracts and one closed. In the laboratory, the stem base was recuted at 2 cm at every other day as well as the change of the water in the vases. The experimental was arranged in a completely random design, in factorial 6 x 6 (ethephon concentrations x time of storage) with 4 repetitions of three stalks. The water uptake and the senescence symptoms were more intense in inflorescences treated with 100 and 1000 mg L⁻¹ ethephon when compared to control flowers. The concentrations of 1, 10 and 100, and the 1000 mg L⁻¹ ethephon reduced the longevity of *H. bihai* in 2 and 4 days, respectively. The bracts opening of *H. bihai* was little influenced by the ethephon, however at concentration of 100 mg L⁻¹ the bract opening was intensified. The loss of fresh mass was larger in inflorescences treated with ethephon. The values for brightness in the bracts increased during the 10 days of storage, however a* (it indicates the change in the color: - a *, green to +a*, red) and chroma the values decreased. The angle Hue increased and the chroma decreased with the increase of ethephon concentration, mainly for the concentration of 10 mg L⁻¹, indicating smaller intensity and loss of the red color of the bract. The general acceptance was limited in the flowers treated with ethephon, mainly for the 1000 mg L⁻¹ ethephon. Inflorescences without treatment presented to the 10 days satisfactory commercial quality. The application of ethephon influenced the senescence of *H. bihai* during storage, reducing quality and shortening the vase life, however did not influence the increase of red color of the bracts, indicating that the species is little or insensitive to the ethylene.