

Use of Plant Growth Regulators in the Amaryllis Production (Hippeastrum X Hybridum Hort. CV Orange Sovereign)

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Abstract : Among the ornamental plants, the Amaryllis (Hippeastrum X hybridum Hort.) is one of the most cultivated plants in Brazil because of their large and showy flowers. Thus, the consumer market wants better quality plants or to flourish more in less time. One of the devices that can make such improvements or accelerate the flowering process is the use of growth regulators. The objective of this research was to evaluate the use of different Stimulate® growth regulator doses and its constituents separately in the development and flowering of Hippeastrum X hybridum Hort. Cv Orange Sovereign. The experiment was conducted in a Pad & Fan greenhouse at UNESP, São Paulo State, Brazil from August to October 2014. The bulbs were placed in black vases of 1.2 L filled with commercial substrate and divided into 9 treatments: T1 - 10 mL L⁻¹ of Stimulate®, T2 - 5 mL L⁻¹ of Stimulate®, T3 - 0.5 mg L⁻¹ of gibberellic acid (GA), T4 - 0.25 mg L⁻¹ of GA, T5 - 0.45 mg L⁻¹ of kinetin, T6 - 0.9 mg L⁻¹ of kinetin, T7 - 0.5 mg L⁻¹ of indolbutiric acid (IBA), T8 - 0.25 mg L⁻¹ of IBA and T9 - distilled water (control). All treatments were diluted in water. The used design was completely randomized with six repetitions and two vessels, totalling 12 vessels per treatment. The evaluated characteristics were: number of leaves, length of leaf, number of rods, maximum height of rods, maximum diameter of rods, maximum number of flowers, beginning of flowering, flowering duration, and weight of bulbs. The results showed that the Stimulate® was not efficient in the conducted experiment conditions. However, the best treatment was 0.5 mg L⁻¹ of IBA.

Keywords : bulbs, gibberellic acid, indolbutiric acid, kinetin, ornamental plants

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