Effects of Sugars and Aminooxyacetic Acid on the Longevity of Pollinated Oncidium Goldiana Flowers

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Abstract


This study focuses on the effects of sugars and aminooxyacetic acid (AOA) on the longevity of detached pollinated Oncidium Goldiana flowers. The Oncidium orchids were subjected to seven different treatments; distilled water, 4% glucose, 4% sucrose, 0.25mM AOA, 0.5mM AOA, 4% glucose with 0.5mM AOA and 4% sucrose with 0.5mM AOA. Several observations were made in this experiment such as the total weight loss and water uptake of flowers, petal colour changes and pH of different solutions. Results showed that a combination of 4% sucrose with 0.5mM AOA and 0.5mM AOA alone gave the best results in prolonging the vase life of detached pollinated Oncidium Goldiana flowers. Furthermore a delay in weight loss, and petal colour change and improved water uptake were also observed.

Key words: Aminooxyacetic acid, ethylene, Oncidium Goldiana, pollination, sugar, Vase life