

STUDY ON THE EFFICIENCY OF COMMON STORAGE SOLUTIONS FOR CUT ROSES (ROSA HYBRIDA CV. AVALANCHE)

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Abstract

The aim of this study was to evaluate the effectiveness of different storage solutions, easy to find in markets and prepare by florists or by end customer, in order to enjoy the beauty of the roses for several days. As a secondary goal, the amplitude of bud opening was monitored by measuring the diameter and weight of the flowers, the consumption of the solution and the chlorophyll content. The storage solutions were prepared, all based on tap water, which is the usual water used by florists and end customers. Four experimental variations resulted: V1 – 2% sucrose - control, V2 – 2% sucrose + 0.5% acetic acid (9°), V3 - 2% sucrose + 0,025% Chlorine, V4 – 0.1% Vitamin C + 0.001% zinc. The storage solution with vitamin C and zinc led to an increase in the fresh weight of the flowers, from 29g to 32.4g, in the first three days of the experiment. Solution consumption increased for all variants, with a maximum on the 3rd day. Even from the first day, higher chlorophyll values had been noted in the flowers from the storage solution with 2% sucrose and acetic acid, $55.3 \mu\text{mol m}^{-2}$, compared to the other experimental variants, chlorophyll content between 46.1-47.4 $\mu\text{mol m}^{-2}$. It is concluded that the best results were obtained for V4, storage solution with vitamin C with zinc. The flowers maintained their freshness until the 6th day.

Key words: acetic acid, flower diameter, sucrose, vase life, vitamin C