

Title The effect of application of different levels of malic acid and salicylic acid on longevity of the vase life cut rose (cv. Utopia)

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Abstract

Rose is one of the world's most popular flowers to produce cut flowers. The study was conducted in a factorial experiment with complete randomized design on 104 cut Rose flowers. The experimental treatments were Salicylic acid (0, 1, 2 mM), and Malic acid (0, 1, 2, 3 mM). One external control treatment was included (200 mg l⁻¹ HQS). Changes of the chlorophyll index of leaves (SPAD), flower diameter increase, wet weight reduction, MDA content and absorbed vase solution were measured in day 8 of experiment. Vase life was measured as the number of days after start until end of the experiment. The results indicate that experimental treatments significantly affected flower parameters. The different concentrations of SA and MA decreased MDA, increased the water-retaining capacity and increased vase life. Maximum of flower vase-life was recorded in treatment with salicylic acid 1 mM + malic acid 0 mM with average of 15.4 days and salicylic acid 0 mM + malic acid 1mM with average of 14.9 days compared to 13 days in external controls (200 mg l⁻¹ HQS) and 11.5 days in distilled water.