

**Title** Effects of maleic hydrazide, boric acid, silver thiosulfate and sucrose treatments on cut Lisianthus flowers

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### **Abstract**

The effects of postharvest Maleic Hydrazide (MH), Boric Acid, silver thiosulfate (STS) and sucrose treatments on physicochemical characteristics of cut 'Purple' lisianthus (*Eustoma grandiflorum*) flowers were investigated in two separate experiments. Cut lisianthus flowers were pulse-treated with Maleic Hydrazide at 100, 200, 400, 600, 800 and 1000  $\mu$ M, boric acid at 25, 50, 75 and 100 mM, Silver Thiosulfate at 0.25, 0.5, 0.75, 1 and 2 mM and sucrose at 1, 2, 5 and 10% for 24 hrs at  $22 \pm 2^\circ\text{C}$ . In the first experiment 5 plants, and in the second experiment, 10 plants were used for each concentration. Experiments were arranged in completely randomized designs. Postharvest vase life, relative fresh weight changes, solution uptake and chlorophyll content were measured. Vase solutions containing 0.25, 0.5 0.75 mM 1 and 2 mM STS, 5 and 10% sucrose significantly increased the vase life of the flowers compared to control in both separate experiments. However MH at 600 and 800  $\mu$ M considerably improved the vase life of flowers, but it was not significant. Moreover, cut lisianthus flowers treated with 0.25, 0.5 0.75 mM 1 and 2 mM STS, 5 and 10% sucrose significantly exhibited greater water uptake and higher relative fresh weights. No differences were found in chlorophyll content of different treatments compared to control.