Title Study on the effect of some chemical compounds on vase life and some quantitative and qualitative attributes of Lisianthus cut flower (*Eustoma grandiflora* Mariachi.cv. Cream) before storage

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Abstract

An investigation of some chemical compounds on vase life and some qualitative and quantitative attributes of Lisianthus cut flowers, was done using a completely randomized design by using pulsing method and some chemical treatments in the Department of Horticultural Sciences, College of Agriculture, University of Tehran. Cut flowers of lisianthus (*Eustoma grandiflora* Mariachi. cv. Cream) were kept in pots containing chemical solutions of aluminum sulfate (200, 300 and 400 ppm), 8-hydroxyquinoline citrate (400, 600, and 800 ppm), ethanol (4, 8 and 12%), cobalt chloride (400, 600 and 800 ppm), aluminum sulfate 300 ppm + citric acid 300 ppm, cupper sulfate (200, 300 and 400 ppm) and water as control for 12 hours. In all treatments, except controls, 5% sucrose was added and cut flowers were then transferred to cold room (2°C, for 10 days) and room temperature (25°C), respectively. Some qualitative and quantitative attributes including vase life, fresh weight, ethylene production rate, were measured and analyzed statistically. Aluminum sulfate at 300 ppm concentrations along with 5% sucrose was the most effective treatment for extending vase life and keeping quality of lisianthus cut flowers increasing vase life of lisianthus cut flowers from 16.33 days (control) to 22.66 days.