

Title Effect of some chemical substances on the longevity of alstroemeria cut flower 'Federica'

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Abstract

Alstroemeria is a new product in Iran that has become increasingly popular with consumers in few recent years. In order to introduce and determine an appropriate preservation solution, a factorial experiment a completely randomized design was carried out at the Karaj Agricultural Faculty. Chemical treatments used in this research were ethanol at 3 concentrations (3, 5, 7%), hydroxyquinolin citrate (300 mg^{-1}), citric acid (300 mg^{-1}) + sucrose (3%) and cobalt chloride (200 mg^{-1}) and distilled water as control. Two methods of application were used: a continuous application method (standard) and short-term (pulse) method. Vase life of cut flowers, ethylene production, chlorophyll content and fresh weight of flowers were compared with each other. Continuous application of chemical was more effective than the pulse application. The most effective treatment was cobalt chloride that increased vase life. Chlorophyll content and fresh weight of cut flowers and reduced ethylene production more than the other treatments, and compared to controls.