

**Title** Study of the effect of some chemical treatments on quality & vase life of Lisianthus (*Eustoma grandiflorum*) cut flowers

**Author** Alireza Farokhzad, Ahmad Khalighi, Younes Mostofi and Roohangiz Naderi

**Citation** Abstracts of 27th International Horticultural Congress & Exhibition (IHC 2006), August 13-19, 2006, COEX (Convention & Exhibition), Seoul, Korea. 494 pages.

**Keywords** Lisianthus; chemical treatments; *Eustoma grandiflorum*; cut flower; continue methods

#### **Abstract**

Two cultivars of Lisianthus cut flowers (*Eustoma grandiflora* Mariachii. cv. Blue & *Eustoma grandiflora* Maraichii. cv. Cream) were used to test chemical treatments on flower vase life. Cut flowers of Lisianthus were kept in pots containing chemical solutions of aluminum sulfate (100, 150 or 200 ppm), 8-hydroxyquinoline citrate (200, 300 or 400 ppm), ethanol (2, 4 or 6%), cobalt chloride (200, 300 or 400 ppm), copper sulfate (100, 150 or 200 ppm), a combination of 150 ppm citric acid and 150 ppm aluminum sulfate, with water as control. In all treatments, except controls, 2.5% sucrose was used and all flowers were maintained chambers at 25°C. Qualitative and quantitative quality attributes were measured and analysed including vase life, fresh weight, ethylene production rate. The two cultivars reacted differently to the chemicals utilized in the experiment Copper sulfate at 100 ppm concentrations along with 2.5% sucrose was the most effective in extending vase life of blue Lisianthus cultivar, while 8-hydroxyquinoline citrate at 300 ppm concentration along with 2.5% sucrose was the most effective for extending vase life and maintaining quality for the cream cultivar of Lisianthus.