

## **Effects of Sucrose, 8-HQ, STS, Aluminum sulphate and Citric acid on the Longevity and Quality of Post-harvest Rose ( *Rosa hybrida L.* ) Flowers.**

**Roosta, H. R., and M. Kafi**

Dept. of Horticulture Faculty of Agriculture Tarbiat Modarres university

Rose (*Rosa hybrida L.*) is one of the mostly cultivated flowers around the world to produce cut-flowers. In our country flower producers pay much attention to this flower. Regarding the economic importance of increased longevity and quality of cut rose flowers, this study was conducted to increase the longevity and quality of cut rose flowers. The study was designed as a factorial statistical project with a random plan on 434 homogeneous cut Rose flowers. Cut Rose flowers, all in the first stage of budding, were placed in preservative solutions ( containing sucrose in three levels of 0, 3 and 5 percent, 8-HQ in two levels of 0 and 200 p.p.m., silver thiosulfate in two levels of 0 and 2 mM, aluminum sulfate in two levels of 0 and 0.5 g/l and Citric acid in two levels of 0 and 0.5 g/l ) and then transferred to distilled water containers. The effects of applied treatments on longevity and quality of cut Rose flowers were evaluated using the measurement of interval between transfer to distilled water and beginning of petal withering, percentage of opening the flower, flower diameter and the amount of water absorbed.

The results showed that the use of pulsing treatments ( especially the treatment containing 200 p.p.m 8-HQ, %5 sucrose, 2 mM of silver thiosulfate, 0.5 g/l aluminum sulfate and 0.5 g/l Citric acid ) significantly increased the longevity and quality of cut Rose flowers.