Effect of foliar application of salicylic acid and thiamine on quantitative and qualitative characteristics of gerbera (*Gerbera jamesonii* L. cv. Pink Elegance)

M. Mansouri[1]*, M. Shoor[1], A. Tehranifar[1] and Y. Selahvarzi[2]

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Abstract

Gerbera is one of the most important cut flowers in the world which is produced extensively in many commercial greenhouses. Nowadays, increasing yield and quality are production necessities. The aim of this research was evaluation of foliar application effects of salicylic acid and thiamine on quantitative and qualitative characteristics of gerbera flower. The experiment was conducted in a completely randomized design with four replications, in pots in greenhouse. Treatments included tap water (control), salicylic acid concentration (75 and 150 µM) and thiamine concentration (250 and 500 µM). Foliar application was performed in two stages, with an interval of two weeks. Results showed that the treatments had significant effect on quantitative and qualitative characteristics of gerbera flower. The largest flower diameter, the shortest growing period and the highest number of flowers was related to 75 µM salicylic acid treatment. The largest diameter of the stem was observed in 150 µM salicylic acid treatment. In this experiment, 500 µM thiamine treatment produced the greatest height of flowering stem and had the highest chlorophyll index. Therefore, it seems that salicylic acid and thiamine could increase production efficiency and improve gerbera flower quality, and in this respect, the best treatment was 75 µM salicylic acid.

Keywords: Product efficiency, Chlorophyll index, Cut flowers.

1. Dept. of Hort. Sci. and Landscape, College of Agric., Ferdowsi Univ., Mashhad, Iran.
2. Pomegranate Res. Center, Ferdowsi Univ., Mashhad, Iran.
*: Corresponding Author, Email: mansoori.1388@yahoo.com

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