

**Response of Ranunculus Plant (*Ranunculus asiaticus* L.) cv. 'Victoria F1' to Foliar  
Spray with Spermidine and Salicylic Acid.**

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**Abstract**

The experiment was carried out in the lath house of the station Research of horticulture and landscaping department/College of Agriculture/University of Diyala, for the season 2015-2016, to study the response of ranunculus plant (*Ranunculus asiaticus* L.) cv. 'Victoria F1', with flowers in orange color, to foliar spray with spermidine at concentrations of 50 and 100 mg/l in addition to spraying with distilled water as a control treatment, and salicylic acid at concentrations of 0, 100 and 150 mg/l. Plants sprayed twice with the concentrations used in the experiment. The factorial experiment (3×3) was designed in accordance with a randomized complete blocks design (RCBD) with three replicates. The results can be summarized as follows:

The results showed that foliar spray with spermedine affected positively in vegetative growth, flowering and tuberous roots qualities. Treatment with concentration of 100 mg/l gave the best results for the characteristics of plant height, leaves number, leaves area/plant, content of relative chlorophyll (SPAD unit) in leaves, percentage of dry matter in leaves, flowering date, number of flowers/plant, flower diameter, length and diameter of floral stem, percentage of dry matter in flowers, number of tuberous roots/plant, length of tuberous root, percentage of dry matter in tuberous roots, while treatment with concentration of 50 mg/l gave best content of total carbohydrates in leaves, tuberous roots diameter, content of total carbohydrates in roots. Foliar spray with salicylic acid affected positively in most of vegetative growth, flowering and tuberous roots qualities, the best results were obtained at concentration of 150 mg/l for the qualities of plant height, percentage of dry matter in leaves, number of flowers/plant, flower diameter, length of floral stem, percentage of dry matter in flowers, number of tuberous roots, tuberous root diameter, percentage of dry matter in roots, while treatment with concentration of 100 mg/l gave best results for number of leaves/plant, leaves area/plant, relative content of chlorophyll (SPAD unit) in leaves, flowering date, floral stem diameter, tuberous root length. The interaction between the concentrations of spermidine and salicylic acid were effect significantly in improving the studied traits. Treatment of spd100×SA100 was surpassed in improves most of the traits.

**\* Part of M.Sc. thesis of the second researcher.**