

عنوان مقاله:

Improving Effects of Salicylic Acid on Morphological, Physiological and Biochemical Responses of Salt-imposed Winter Jasmine

محل انتشار:

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خلاصه مقاله:

To investigate the positive effects of salicylic acid (SA) on morphological and biochemical traits of salinity stress-imposed winter jasmine, an experiment was conducted in a research greenhouse. The experiment was conducted using a factorial experiment based on completely randomized design with four levels of salinity stress (2, 4, 6, and 8 dS.m⁻¹) as the first factor and different levels of SA plant hormone (control, 181 and 362 μM) as the second factor in three replications. The results showed that spraying SA on winter jasmine plants, significantly improved all studied traits such as plant height, internode distance, fresh and dry weights, flower number, flower diameter, content of protein, POD and SOD enzyme activities. The positive effects of SA was concentration dependent. Salinity stress increased the activity of peroxidase (POD) and superoxide dismutase (SOD) enzymes compared to 2 dS.m⁻¹ salt treatment. The highest enzymatic activities were observed at 8 dS m⁻¹. In general, according to the obtained results, it can be concluded that foliar application of SA on the plants, has the potential to reduce the negative effects of salinity stress on winter jasmine.

کلمات کلیدی:

Carotenoids, Plant Hormones, SOD, Total chlorophyll, winter jasmine

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