

## Evaluation of salicylic acid and mycorrhiza on some characteristics of cumin

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**ABSTRACT:**

The presence of mycorrhiza in rhizosphere provides symbiotic relationship between a higher plant root and a nonpathogenic fungus. Through receiving energetic carbon resources from plant, fungus facilitates the uptake of many inorganic nutrients such as phosphorus, zinc, molybdenum, copper and iron for it. Application of salicylic acid significantly increased growth parameters, photosynthetic pigments and proline content and decreased lipid peroxidation in sweet basil under salinity stress condition. The field experiment was laid out factorial with randomized complete block design with three replications. Treatments included salicylic acid involve control (I1), 25, 50 and 100 ppm, and mycorrhiza included control, *Glomus mosseae* and *Glomus etunicatum*. Analysis of variance showed that the effect of salicylic acid on grain yield, number of seeds per umbel, Umbel number in plant and Plant height were significant. The maximum characteristics of treatments in 50 ppm were obtained. The minimum of control treatments were obtained. Analysis of variance showed that the effect of mycorrhiza on grain yield, number of seeds per umbel, umbel number in plant and plant height were significant. The maximum of all characteristics were obtained in the samples treated with *Glomus mosseae*. The minimum characteristics were obtained in control.

**Keywords:**

Grain yield, Number of seeds per umbel, Umbel number in plant, Plant height