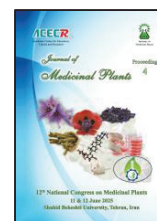




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### Evaluating the Role of *Bacillus subtilis* in Alleviating Salt Stress in *Portulaca oleracea*

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#### ABSTRACT

Purslane, scientifically known as *Portulaca Oleracea*, grows in various regions of the world. Various factors have led to purslane being mentioned in many articles as the superfood of the future. Purslane has been described as a future Power Food due to its high nutritional and antioxidant properties. Purslane has been introduced by the World Health Organization as one of the most widely used medicinal plants and has been given the title Global Panacea, meaning an elixir or all-round medicine. To evaluate the impact of *Bacillus subtilis* bacteria on Purslane, an experiment was conducted under greenhouse (Randomized Block Design) conditions involving 14 treatments (seven salinity levels) and 4 replications (different doses of salinity with bacteria applied individually and in combination). Findings revealed that Purslane tolerance to salinity improves significantly in the presence of this bacterium, reaching up to 14 dS. Based on these findings, such biological products demonstrate great potential for promoting the sustainable cultivation of medicinal plants in Iran.

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