

عنوان مقاله:

A study on the effect of endophyte fungus, *Piriformospora indica*, on the yield and phytochemical changes of globe artichoke (*Cynara scolymus* L.) leaves under water stress

محل انتشار:

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نویسندگان:

Shiva Rahimi Tanha - *M.Sc student at Horticulture Faculty of Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

Azim Ghasemnezhad - *Assistance Professor at Horticulture Faculty of Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*

Valiolah Babaeizad - *Assistance Professor at Plant Protection Faculty of Sari University of Agricultural Sciences and Natural Resources, Sari, Iran*

خلاصه مقاله:

Piriformospora indica, a cultivable root colonizing endophytic fungus of Sebaciniales, promotes plant growth and confers resistance against biotic and abiotic stress. The fungus has also the ability to colonize the roots of many varieties of plant species. The goal of present study was to clarify the colonizationability of *P.indica* in artichoke roots and the respond of plant to water stress. Results showed that Globe artichoke (*Cynara scolymus* L.) was strongly colonized by the fungus. The fungus retarded the droughtinduced malfunctioning in the photosynthetic pigments. Proline, an osmotic signal adjustment was clearly increased during water stress in colonized plants. Total phenol, flavonoid contents, radical scavenging activities, and photosynthetic pigments were influenced by treatments. Based on the obtained results and observations, it can be concluded that *P.indica* as an elicitor enhances the plant growth efficiency under sever conditions. Thus, *P.indica*- colonized *Cynara scolymus* L., provides a good model system to study root-to-shoot communication in secondary metabolites production

کلمات کلیدی:

Cynara scolymus L., Globe artichoke, *Piriformospora indica*, Proline, radical scavenging

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