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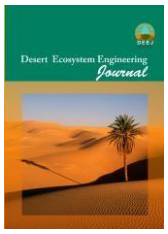

Interactive effects of light and temperature on germination of *Zygophyllum fabago* L.

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Abstract

Syrian bean caper (*Zygophyllum fabago* L.) grows in dry and uncultivable wastelands. Because of high tolerance to adverse conditions, an experiment was designed and fulfilled to investigate the effect of two environmental factors, light and temperature, on Syrian bean caper seed germination. Experiment was performed in a completely randomized design with two levels of light (light and dark) and two levels of temperature (22 and 28 ˚C) in three replicates. Sterilized seeds were placed in light or dark under 22 or 28 ˚C temperatures. At 7th days of germination, root and shoot lengths, fresh and dry weights and seed vigor were measured. Analysis of variance showed that germination percent, root and shoot lengths and seed vigor were, significantly, affected by the main effect and interaction of light and temperature. The highest percentage of germination was scored at 28 ˚C and dark. The light at 22 ˚C had a positive effect on germination of seeds. The results suggest that light at low temperature and dark in high temperature increased, considerably, syrian bean caper seed germination. The results can be used for culture and make up the vegetation cover by *Zygophyllum* in aired and desert regions.

Key words: *Zygophyllum fabago*, light, temperature, germination, seed vigor.

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