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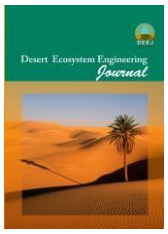

Determine the relative contribution of soil factors effecting the presence of invasive species Lashgardar using multiple regression analysis

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Abstract

Soil physical and chemical properties are the most important factors affecting plant growth Considering variability of soil properties in different areas, investigation on their effects on the plant growth is important, therfore, in this study the contribution of soil factors affecting the unwanted and invasive species in Lashgardar region at Hamedan province was investigated. Sampling was performed by Systematic – randomize method in 4 key areas and totally 45 plots were established (The key areas were identified by field survey and each plot had 3m2 area). In each plot, the percent of canopy cover and density of studied species were measured and two soil samples were taken from depths of 0-10 and 10-30 cm. Soil factors including pH, EC, percentage of nitrogen, percentage of organic matter, and soil texture were determined in laboratory. Data analysis was performed using multiple regression analysis. The results demonstrated that only 32 percent of vegetation changes occur because of soil properties and soil texture has the greatest effect between them.

Keyword: Invasive Species, Soil Characteristics, Multiple Regression Analysis, Lashgardar.

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