

Abstract

Desertification is Land degradation and Loss of biological productivity in arid and semiarid regions due to climatic variations and human activities. Since the major biological products in arid region come from plant populations, deterioration of vegetation cover is the most important index of desertification. *Haloxylon* plantation was done due to sand dune stabilization, reclamation of degraded Lands and reduction of wind erosion damages in Sistan region. Soil-plant relationships are very important to be known for management and planning of rangelands. These correlations can help managers and experts in increasing production and preventing financial damages. The objective of the research was evaluation of *Haloxylon* plantation effects on soil characteristics and vegetation cover. At first, in each plantation and control regions (*Haloxylon persicum* and *Haloxylon aphyllum*), truly_separate two transect and at length each transect 10 plot 10×10 truly randomized based and 28 soil samples of soil depth 0-30 cm was take and to Appointment set derivation Chemical-physical soil variables results included texture, organic matter, potassium, sodium, phosphorous, electrical conductivity (EC) and acidity (pH) was transfer. Sampling was performed with randomized-systematic method. The results showed that cover percentage, yield and homogeneity and species composition increased were better in plantation Lands that the control region. By application Duncan methods soil data was analysis instance. The results showed that there were not significant differences between two region soil texture. Also, there were significant differences between soil characteristics except of soluble sodium in plantation and control region. Organic matter, potassium, phosphorus and nitrogen in plantation lands were more than the control region. In addition, in plantation lands, alkalinity and salinity were increased more than the control region.

Key words: *Haloxylon* plantation, vegetation cover characteristics, soil characteristics and Sistan.



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**Investigation on the effects of *Saxual*
species on soil characteristics and
vegetation
cover at Sistan region**

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