A Survey about Understorey Covering in Areas (Lands) under the Cultivation of *Haloxylon* in Ardestan Area

G. R. Zehtabian
University of Tehran, Iran

M. Ghadimi
University of Tehran, Iran

J. Bakhshi
University of Tehran, Iran

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G . R . Zehtabian[1] , *M . Ghadimi*[2] , *J . Bakhshi*[2]
[1] *Natural Resources Faculty , University of Tehran ,* [2] *M . Sc , Management of Desert Area , E-mail : me _ ghadimi@ yahoo . com and mahalat20@ yahoo .co .uk*

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Introduction From 1985 in Iran *Haloxylon* plantation was used in order to wind erosion control and sand dune fixation . At first the seed of this plant was imported from USSR . The impacts of *Haloxylon* plantation were protection of roads , farms , waterways and quadrates from sand dunes coverage and wind erosion control . The total area of sand dune fixation methods such as seedling , forestation and mulch application for plantation increased from 100 hectares in1985 to 6200000 hectares in 1997 (Bakhshi , 2005) .

Materials and method For researching in to the effect of *Haloxylon* plantation on plant cover of this region , at first we determined its geomorphology maps , for this reason we collected statistical data about climate , soil , plant cover , geology , geomorphology and prepared topography plan at the scale of 1/50000 and also a plan on gradient , direction and height . Then by going over , *Haloxylon* region from 10-15 and 20-25 years of age and also over the ages of 26 were determined in a geomorphologic maps . At lost area that its maps is like to *Haloxylon* area and without any plant was determined as reference area . These areas have been similarity climatology . By going over , a field observation was selected in each of the area . Via statistical Methodology , the number of plates calculated in each pile (Mesdaghi 2004) .

Results According to received results from variance analysis , the significant difference between the percent of crown and density of the whole species under and between the *Haloxylon* trees in *Haloxylon* area and reference areas is about 1 percent level . On the basis of accomplished compression , the overage data of the percent of compression crown of the whole species between treatments , there is significant variance between 3 category , group A (between the trees over the age of 26 years) , group B (the treatment under the trees over the age of 26 years , between the trees from 20-25 years of age) and group C , reference area (under trees from 10-15 years of age) and also there is no significant difference between the treatments among trees from 10-15 years of age and under the trees from 20-25 years of age .

According to accomplished compression between the coverage data of compression of the whole species among the treatments , there is no significant difference between the treatments from 20-25 years of age under and between the *Haloxylon* trees in *Haloxylon* plantation over the age 26 years with reference area , and also there is significant variance between the treatments over the age of 26 years (group A) and the treatment between the trees from 10-15 years of age (group C) with other treatments (group B) .

Conclusions On the basis of shown result in this text , we can say the cultivating of the *Haloxylon* change the accumulation and the percent of crown and density on species understories between the *Haloxylon* trees .

In the area over the age 26 years , there are the most percent of the crown and density species compression . The most important reasons consist of the decrease in the intensity of wind and also Evapotransporation , the distance of special microclimate and agreeable species to *Haloxylon* in this area . On the basis of Saeid Afkham Shoara (1996) research at the south of Khorasan province , *Haloxylon* plantation is more compressed than distances which are without any *Haloxylon* .

According to received results , the most percent of crown and density of the whole species is between the trees over the age of 26 years , and the least percent is on the *Haloxylon* area from 10-15 years of age . The principle reason of the drop in the percent of crown and density of the whole species is destruction factors , in the other land , with the passing time and overcoming of annual species the percent of the crown and density of the whole species in understories of the *Haloxylon* plantation increase .

And also the percent of crown and density of the whole species between the *Haloxylon* trees that its principle reason is the effect of upper level on understories cover .

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