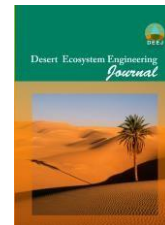




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Investigation Effect of Important Nutrient Elements in Soil of Vegetative characteristics of *Stipagrostis pennata* in the desert plain of Sabzevar

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Abstract

The protection and improvement of natural resources especially for desert vegetation need a comprehensive recognition of natural resources and relationship on Soil characteristics. One of the most important species growing in sabzevar desert is *Stipagrostis pennata* and in the current research the relationship between the physicochemical properties of the soils and growth characteristics of the *S. pennata* including density, canopy cover and amount elements of soil have been studied in the land. A random systematic design has been applied in 4 sites called A, B, C, and D within a distinct habitat of *S. pennata*. Soil samples have been taken from 2 depths (0 - 30 cm) and 30-60 and prop Hon of clay, silt and sand content, amount of N, P, K, C, Na, Ca and Mg have been determined in a soil lab. The soil physico-chemical and plant growth data have been analyzed through statistical methods using the SPSS software. Further finding of this study show that the growth characteristics of *S. pennata* such as density, canopy cover and forage production rarely depend on soil chemical properties but there is a statistically significant positive correlation between the canopy cover and amount of Ca. This has been shown by higher canopy cover in site B which has higher Ca. The results show that there is direct relationship between the amount of nitrogen and growth properties off of *Stipagrostis pennata* and other elements of the soil was not significant.

Keywords: *Nutrient Elements in Soil, Sabzevar sand plain, S. pennata.*

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