

Abstract

Several medical speices have limited or wide habitate that have significant effect on growth and development of bioactive compound on thid plant . In this study some morphological and phytochemical characteristic in three different habitate of Kordistan Proviencie was assesswd by nested design. Morphological traits assessed include: bush high, lenth and weith simple and rosette leaves, internode distance, stem diameter, number and diameter og flowers, number of leave, and Chemical traits include: chlorophyl indicator, measuring N P K elements in the soil. Leave and flowers, essential musylax performance measuring in this plant. The result of analysis of variance showed habitate indicator to measure the impact was not significant but different height in each habitate in 1 and 5 leaves, also height above sea level and then reduce tempreture more morphological character and essential oil hede fallen. Most compoune in the essential oil of *Echium ittalicum*was hydrocarbon compounds and most percent of them releated to Camphor, Chomphonen, Borneol, Hexadecadoneic asid 1 methyl ester and cadinon. After reviwing the result it was found that Sanandaj ecotype in 1557 meter height was the best ecotype with 0.097 % of essential oi.

Key word: habitate, Height, Essential oil, *Echium ittalicum*.



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