

## Abstract

In this study evaluated effect of ecological conditions habitat in South Khorasan on quantity and quality *Dorema ammoniacum* plant (*Dorema ammoniacum*). Characteristics measured such as plant height, fresh and dry weights of various organs including the stems, roots, flowers and leaves, and amount of nitrogen, phosphorus, potassium, carbohydrates, proteins in different organs. Also for check the quality and quantity of essential oil, the methods GC and GC/MS were used. The results showed that geographical factors, and soil and climatic conditions is effective on measured factor. So if the purpose of the harvested *Dorema ammoniacum* plant is only for use in animal nutrition, can culture this plant widely in khor habitat, to prevent of extinction of this pharmaceutical and industry species, and to feed it in animal, because according to the results, this habitat have maximum height and fresh and dry weight. If our goal is the use of essential oils and plant active material, which is important for pharmaceutical companies, it is best that cultivated this species in darmeyan city, to have higher quality and quantity of active material, because in Darmeyan city amount of sesquiterpene that is components of this essential oil is maximum. In any case, our goal is identify new habitat of the plant, where the morphological and physiological plant is in maximum state, increase the cultivation of the plant and prevent of extinction this plant.

Key words: oil essential, Komakandal, medicinal plants, morphology.



University of Zabol  
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Thesis Submitted in Partial Fulfillment of the Requirement for the degree of  
Master of Science (M.Sc) in Thread, Medicinal Plants, Spices and Soda

Title:  
**Evaluation effect of ecological condition of  
habitats of South Khorasan province on  
quantitative and qualitative characteristics *Dorema  
ammoniacum* plant  
(*Dorema ammoniacum*)**

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Joan 2015