College: Art

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Dept: Geography

Title of Thesis:

Geographical Analysis of the Possibility of Irrigating Arable Lands by the Ground water in the Eastern Part of Basrah Governorate: A Study of Soil Geography

Abstract:

This thesis aims at studying the impact of spatial and temporal variation on the physical and chemical features of soil and ground water and the level of water ground and then the impact of the two on the density and production of barley.

The study is made up of four chapters. Chapter one deals with the natural and human factors that affect the physical and chemical features of soil, the level and quatity of the ground water and the agrarian production. Chapter two discusses origin, level and quatity of the ground water in the wells that were digged in the area under study. Chapter three is devoted to study the physical and chemical features of the soil location and their impact on the level and quatity of the ground water and the amount of the agrarian production. Chapter four describes the field experiments in districts of Shatt_Al_Arab and Fao and the impact of the level of ground water on the growth of barley in the two districts in addition to the effect of employing different types of irrigation water on the features of soil and barley production.

The study reveals the roles and effects of the natural and human factors on the features of soil and the level and quality of the ground water. Climate is the most influencial direct factor on the features of soil and the level of ground water. It was also shown that there was a difference in the depth_levels from the north to the south when going far from Shatt_Al_Arab bank. There were also differences in the quality of the ground water in the sample wells that were digged. Differences were also noticed in the features of soil between the two locations of the area under

study i.e districts of Shatt_Al_Arab and Fao. There was an impact of the level ground water and soil management of the coefficient of the field experiments on the general rate of the barley produced by using different types of water of irrigation.