



جامعة الفيوم

كلية الزراعة

قسم الاراضي والمياه

ملخصات الابحاث المقدمة من الدكتور/ عبد الناصر أمين أحمد عبد الحفيظ

المتقدم للجنة العلمية الدائمة للأراضي والهندسة الزراعية لترقية الأساتذة المساعدين والأساتذة

البحث الخامس

Rabea H. H., El-Shakweer M. H A., Ewees M. S.A. and Abdel-Hafeez, A. A. A., (2017).
Impact of ground water salinity and sodicity on soil chemical properties at soils
nearby Qaroun Lake, Fayoum.Egypt. Fayoum J. Agric. Res. & Dev., Vol. 31, No.1,
January, 2017.

تأثير ملوحة وصودية الماء الارضي علي خواص التربة الكيميائية في الاراضي المجاورة لبحيرة قارون - الفيوم -
مصر

الملخص باللغة الانجليزية

To study the effect of ground water salinity and sodicity on some soil chemical properties, the selected area under study comprised the nearest northern fringes of Qaroun lake shoreline, which considered as the main outlet of drainage water of El Fayoum Governorate via many drainage canals. The parent materials of most lands are more related to calcareous coarse textured nature. These soils were put under reclamation in sequence more than ten years ago, and most of their lands were put under cultivation. The newly cultivation, surface irrigation and the insufficient drainage system make up water ground table raised. In general, soil chemical properties showed that most of the soil profiles under investigation suffer from salinity appearances. Therefore, it is accepted that such soils might need to reclamation and amelioration processes. The relationships between different soil variables and ground water characteristics reflect highly positive correlation between soil salinity and ground water salinity, whereas, the reverse was observed with ground water depth, which showed a negative and highly significant correlation.

In order to permanently improve the studied soil area , it is necessary to not only leach salts , but also to have adequate drainage .The drainage system must provide a lot amounts let for the removal of the leachates as well as keep the water table deep enough to prevent salt ground water from moving up to the root zone . Gypsum must be added according to gypsum requirements.