



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 الأول

Abdel-Hafeez, A. A. A. (2018). Effectiveness of gypsum application and plowing in improving severely deteriorated clay soil characteristics and wheat growth at Qaroun Lake shore line, Fayoum Governorate . Fayoum J. Agric. Res. & Dev., Vol. 32, No.1, January, 2018.

أثر اضافة الجبس الزراعي والحرث في تحسين صفات الأرض الطينية الثقيلة شديدة التدهور المتاخمة لبحيرة قارون ونمو نبات القمح بها

الملخص باللغة الانجليزية

Wide areas of severely deteriorated lands at Quaroun Lake shoreline have been left bare since a long time , although many attempts were made to cultivate some parts but all failed. A field experiment was carried out in a private field during the season 2014-2015 at the north of Fayoum Governorate (about 200 m from Quaroun Lake, Sinours District).Nine treatments were tested including the control, shallow and deep plowing (20 and 60 cm), application of 50% and 100 % of estimated gypsum requirements and their combinations. Remarkable decreases were found in the values of soil bulk density, ECe values, soluble cations and anions, soil paste pH and removal sodium efficiency (RSE). Values of total porosity, hydraulic conductivity, field capacity, permanent wilting point, available water increased with soil deep plowing and gypsum application. Also, grain and straw yields of grown wheat crop were enhanced with soil deep plowing together with gypsum application and leaching with required amounts of water in comparison with those of the control treatment . Deep plowing with the application of 100 % of estimated gypsum requirements resulted in the best improvement of both soil characteristics and plant growth among all other treatments. Results of the present experiment that was conducted in a private farm has actually encouraged farmers of the studied area to start land reclamation and cultivation of their lands that were left bare since a long time.