



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 السابع

Abdelgawad, M. A, Ibrahim A. M. , Abdel-Hafeez, A.A.A and Ahmed A. A., 2019.Spatial distribution of soil calcium carbonate, salinity, pH, salinity, soil texture and organic matter content in Youssef El-Sedik District area, Fayoum Governorate, Egypt. Bull. Fac. Agric., Cairo Univ., 70:43-52.

التوزيع الجغرافي لكريونات الكالسيوم والملحية والرقم الهيدروجيني والقوام ومحتوي التربة من المادة العضوية في أراضي مركز يوسف الصديق – محافظة الفيوم – مصر

الملخص باللغة الانجليزية

Spatial distribution of soil salinity, alkalinity, calcium carbonate, organic matter and soil texture (grid system-log distance of 2 km) was identified and mapped throughout Youssef El-Sedik District area, Fayoum Governorate, Egypt, using ARC- GIS format. It was found that the ECe ranged between 0.68 and 132 dSm-1 and from 0.92 to 82 dSm-1 within the upper 10 cm and the (10 – 50 cm) soil layers, respectively. The data showed that 91.23 % and 78.97 % of the study area within the upper 10cm and the (10 – 50 cm) layers respectively have ECe > 4 dSm-1. About 47.62 and 30.39 % of the district soils have ECe values > 10 dSm-1 within the upper and subsurface layers, respectively, indicating that salt- affected soils are distributed throughout the study area. About 92.53 % of soils were calcareous (> 10 % CaCO3 equivalent) due to the nature of parent material from which soils of the study area are evolved. Soil pH more than 7.5 was found in about 46.69 % and less than 1 % of soils have pH values > 8.0 with a greatest pH value of 8.2. The organic matter contents seldom exceeded 2 % in Youssef El-Sedik soils. Several different soil texture classes were found, however 46.38 % and 42.65 % of the soils were of clay texture within the (0 – 10 cm) and (10 – 50 cm) layers, respectively.