



جامعة الفيوم
كلية الزراعة
قسم الاراضي والمياه

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

Abdelgawad, M. A. ; Awadalla, A.A. ; Abdel-Hafeez, A.A.A. and Mabrouk, A. H., (2018).
Effects of long term irrigation using mixed Nile water with drainage water and
organic farming management on some properties and fertility of some Fayoum
soils , Egypt. Fayoum J. Agric. Res. & Dev., Vol. 32, No.2, July, 2018.

تأثير الري بالماء المخلوط بمياه المصارف والزراعة العضوية لفترة طويلة علي بعض خواص وخصوبة التربة في
بعض اراضي محافظة الفيوم.

الملخص باللغة الانجليزية

Objectives of the present work were to study the effects of long term (< 10 years) use of mixed Nile with drainage water in irrigation and organic farming management in some Fayoum Governorate soils on plant essential macro and micro nutrients availability and some soil characteristics. Six soil profiles were excavated to achieve the first objective: three of which at an area irrigated with fresh Nile and three represented soils irrigated with mixed water. Two other profiles were dug in a private farm at Ibshaway, Fayoum: one from a long term (<10 years) organic managed filed and the second represented in a conventional managed field at the same area. The use of mixed Nile with drainage water resulted in great increases in the mean values of soil salinity expressed as ECe values and the concentrations of AB- DTPA extractable P, K, Fe, Mn, Cu, Zn and hot water extractable NO₃ - N. Soil cultivated under organic farming system for <10years had less salinity and slightly less pH values and contained more extractable available N, Fe, and Cu and less Zn, Mn , and P than soils of the conventional managed field. The concentrations of hot water extractable - N were found below the critical deficiency limit in all the studied soils. AB - DTPA extractable- Zn concentrations were below its critical deficiency limit in most soils or within the deficiency range in some others. Concentrations of all other nutrients ranged between deficient or sufficient depending upon quality of irrigation water, soil depth and management system. Means of extractable concentrations of all the studied nutrients generally decreased with soil depth down to 90 cm in all the studied soil profiles.