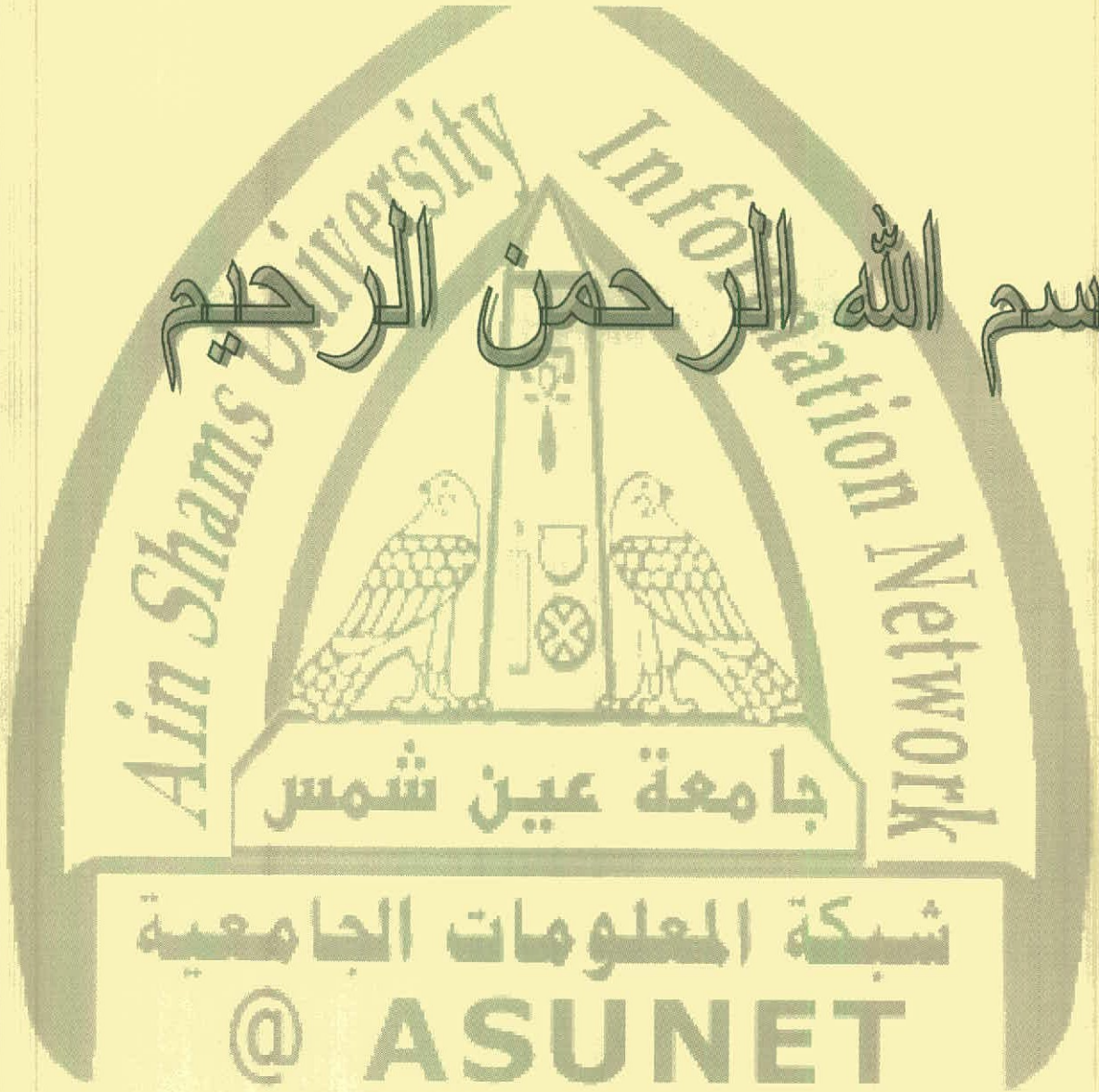
شبكة المعلومات الجامعية



بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

EFFECT OF DRAINAGE WATER ON SOME EGYPTIAN SOILS AND PLANT

BY

WAFAA ABD EL-KARIM HAFIZ

B.Sc. Agric. Cairo University (1987)

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF SCIENCE

In

(Soil Science)

Department of Soils and Agricultural Chemistry

Faculty of Agriculture, Moshtohor,

Zagazig University

(Benha Branch)

2001

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ABSTRACT

Field study was carried out to evaluate the effect of a long term irrigation with waste water on soil properties and content of macro and micro nutrients and heavy metals as well as cultivated plants. Therefore, four locations were chosen at Zenien area and the control from outside the study area, El- Giza Governorte. These irrigation sources were differing in its quality, including sewage wastewater, secondary treated sewage water, canal polluted water, well water and normal fresh water (control). The soil texture is clay and the tested crops were Berseem and Zea Maize. A salinity and heavy metals accumulation problems were found in soil as well as cultivated plants in long run application. The concentration ratio of the (N, P, K, Fe, Cu, Zn, Mn)was higher in soil irrigated with "SWW, STSW, CPW, and WW" in comparison with those irrigated with normal fresh water (control). A gradual decrease in heavy metals with increasing soil depth. There is an increase of macro , micro nutrients and some heavy metals content in plant shoots, a high accumulation ratio of these elements was found. A high transfer coefficient of these metals to plant shoots from soil was found. An increase of macro, micro nutrients and some heavy metals content in Maize grains was found in comparison with those obtained with control due to irrigation with low quality water.