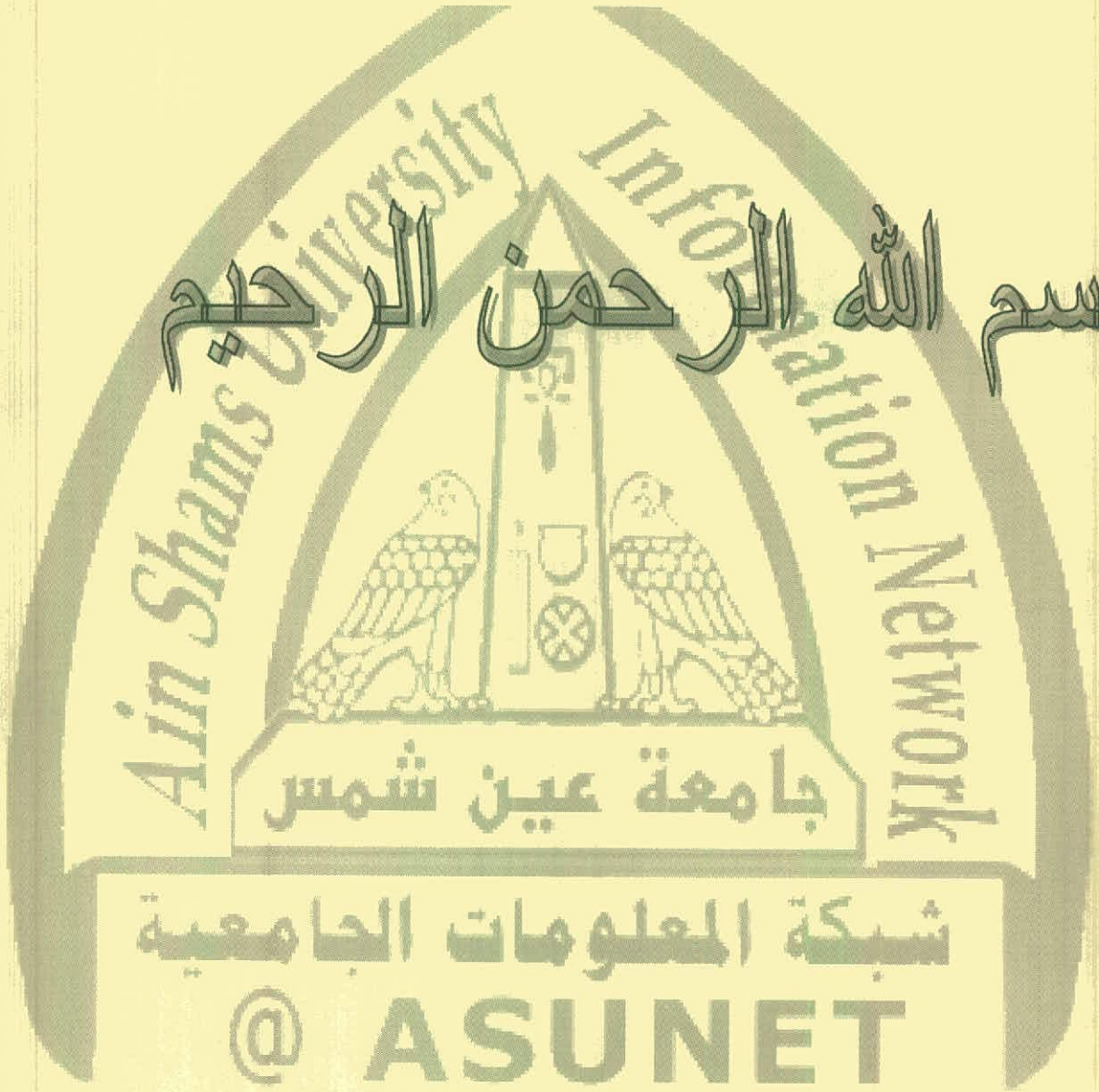
شبكة المعلومات الجامعية



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

Status and distribution of certain nutritional elements in soil and dynamics of their absorption by plant

BY
Wafaa Mohamed Taha Eletr

B. Sc. Agric. Sci. (Soil Science) Cairo University 1980
M. Sc. Agric. Sci. (Soil Science) Cairo University 1989

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Of
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Faculty of Agriculture
Ain Shams University

1995

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Abstract

Wafaa Mohamed Taha Eletr. Status and distribution of certain nutritional elements in soil and dynamics of their absorption by plant. Doctor of Philosophy (Soil Sci.), Ain Shams University, 1995.

Both field studies and pot experiments have been performed to evaluate the nutritional status and distribution of elements in soil, dynamics of such elements being also evaluated.

Field studies were carried out at Salhia region of Esmailia governorate using the three crops of wheat, successive growth stages, as well as grapes and mandarin.

Physical and chemical characterists of studied area were evaluated under different environomental conditions. Nutrient status in soil and dynamics of the concerned nutritional elements were also detected both through the various profile layers and different selected locations. Finally, nutrient equilibrium among different forms of the studied macronutrients in soil was traced to study transformations of such elements from form to other.

Nutrient status in plants was studied in different plant parts to be then correlated with available form in soil for both macronutrients and micronutrients; evaluation for shoot : root ratios of wheat plants were also performed at different studied growth stages.

Pot experiments, on the other hand, were designed for evaluation of certain phases of uptake dynamics, with corn being the chosen indicator plant..

Nitrogenous and phosphatic fertilizers were applied at 3 levels; status for both nitrogen and phosphorus in plants was determined, correspondent shoot / root ratios, for all studied parameters of dry matter and concerned elements, being also detected.

Efficiency of absorption decreased as the rate of applied fertilizer increased, utilization quotient being not greatly changed for both studied nutrients during the concerned growth period of the studied plants which seemed to be, along with fertilization design, affecting the dynamics of nutrient absorption.

Key words : Fertilization - Absorption dynamics - Efficiency of absorption - Utilization quotient - Nutritional status.