



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

STUDIES ON CITRUS NUTRITION IN MENOUEFIYA GOVERNORATE

By

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B.Sc. (Soils - Agric.)

Menoufiya University, 1988

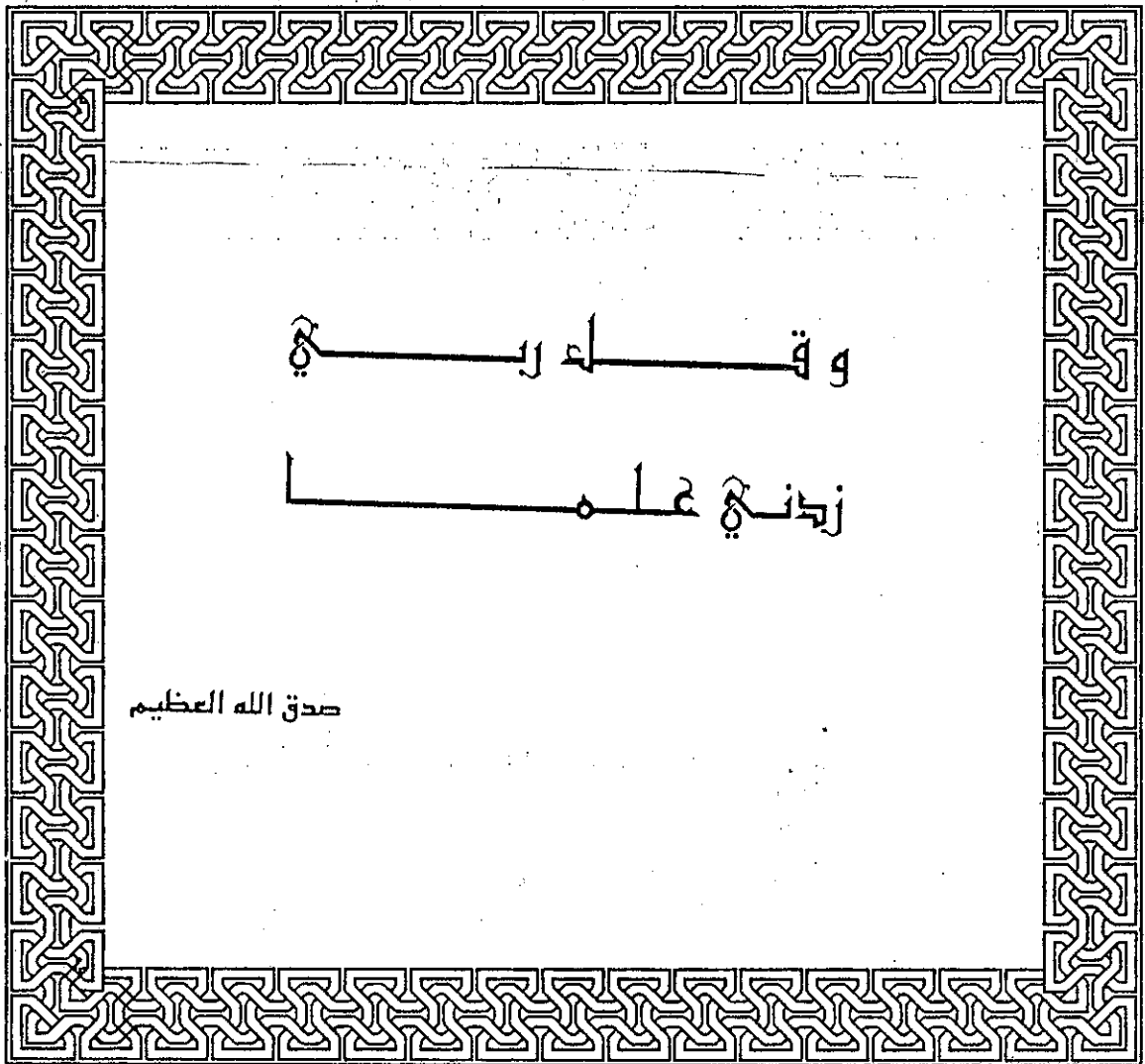
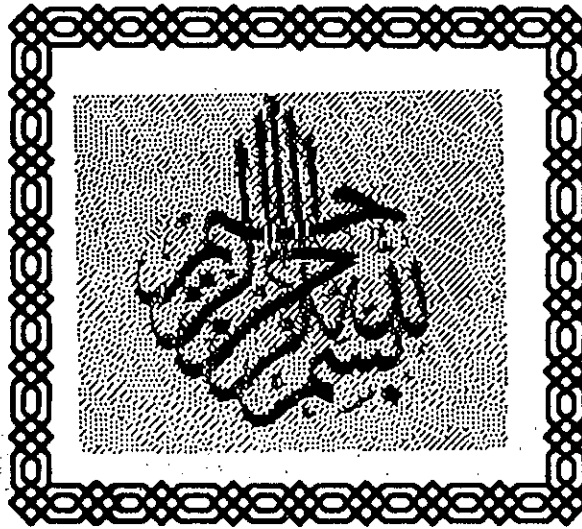
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I. INTRODUCTION

Citrus is one of the most important horticultural crops in Egypt. In general Menoufyia Governorate is one of the biggest and most important Egyptian region in this respect either for the local consumption or for export. cultivated citrus area in Egypt is 303,000 faddan in 1992, while in Menoufyia Governorate, it is 26765 faddan according to the statistics of the Egyptian Ministry of Agriculture, (1992). The low production of citrus trees in Egypt may be attributed to the exhaustion of Egyptian soils due to intensive agriculture, and the inadequate compensation with organic and inorganic fertilization; which lead to unbalanced nutrients in soil, and its low productivity. Therefore, fertilization recommendations should be reevaluated, with special attention to micronutrients application (Bakr *et al.*, 1980 and Omran, 1988). Many investigations had studied the effect of organic fertilization and of different levels N P K fertilizers with on citrus trees; (Shuman, 1988 a), Rizk (1992) and El-Koumey *et al.* (1993). Special attention has been undertaken for foliar application in citrus with some micronutrients such as Fe, Mn and Zn in the last period (Omran *et al.*, 1988 and Rabeh *et al.*, 1993). The present work was carried out to evaluate the organic fertilization

(NPK) requirements of orange trees with special attention to the influence of foliar application with Iron, Manganese and Zinc as micronutrients on the yield, and its quality in Menoufyia Governorate.

2. REVIEW OF LITERATURE

2.1. Effect of FYM, NPK fertilization and Fe, Mn and Zn foliar application on soil :

2.1.1. Effect of FYM on soil :

Many workers found that FYM addition to citrus soils showed an increase in nutrients availability. Kimble (1972), Nishita *et al.* (1973) and Novak *et al.* (1974) indicated that both organic and inorganic fertilizers increased nitrogen availability. El-Badry and Assad (1983) showed that FYM decomposition released macro and micronutrients in soil. Inoko (1984) indicated that straw compost and FYM could be very effective as nutrients sources in soil where N was the most important released nutrient. Kumazawa *et al.* (1989) concluded that immobilization and mineralization of N in soil can be regulated by the addition of FYM. Omran *et al.* (1984) reported that application of composted straw, generally improved the availability of Fe, Mn and Zn in soil. Fawzi *et al.* (1986), Intrigliolo (1986), Hussien (1987) and Omran *et al.* (1987) reported that FYM addition increased available N, P, K, Fe, Mn and Zn in citrus soil.

Sharma and Arora (1988) stated that FYM application increased available N, P, K and organic carbon contents of