



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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 الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

TRIALS FOR INCREASING THE EFFICIENCY
OF ADDED PHOSPHATIC FERTILIZER

B4975

By

Yasser Jouma Al-Salama

B.sc. in Agric. Sci., 2nd Fac. of Agric., Aleppo Univ.

Syria, 1992

A thesis submitted in partial fulfilment
of
the requirements for the degree of

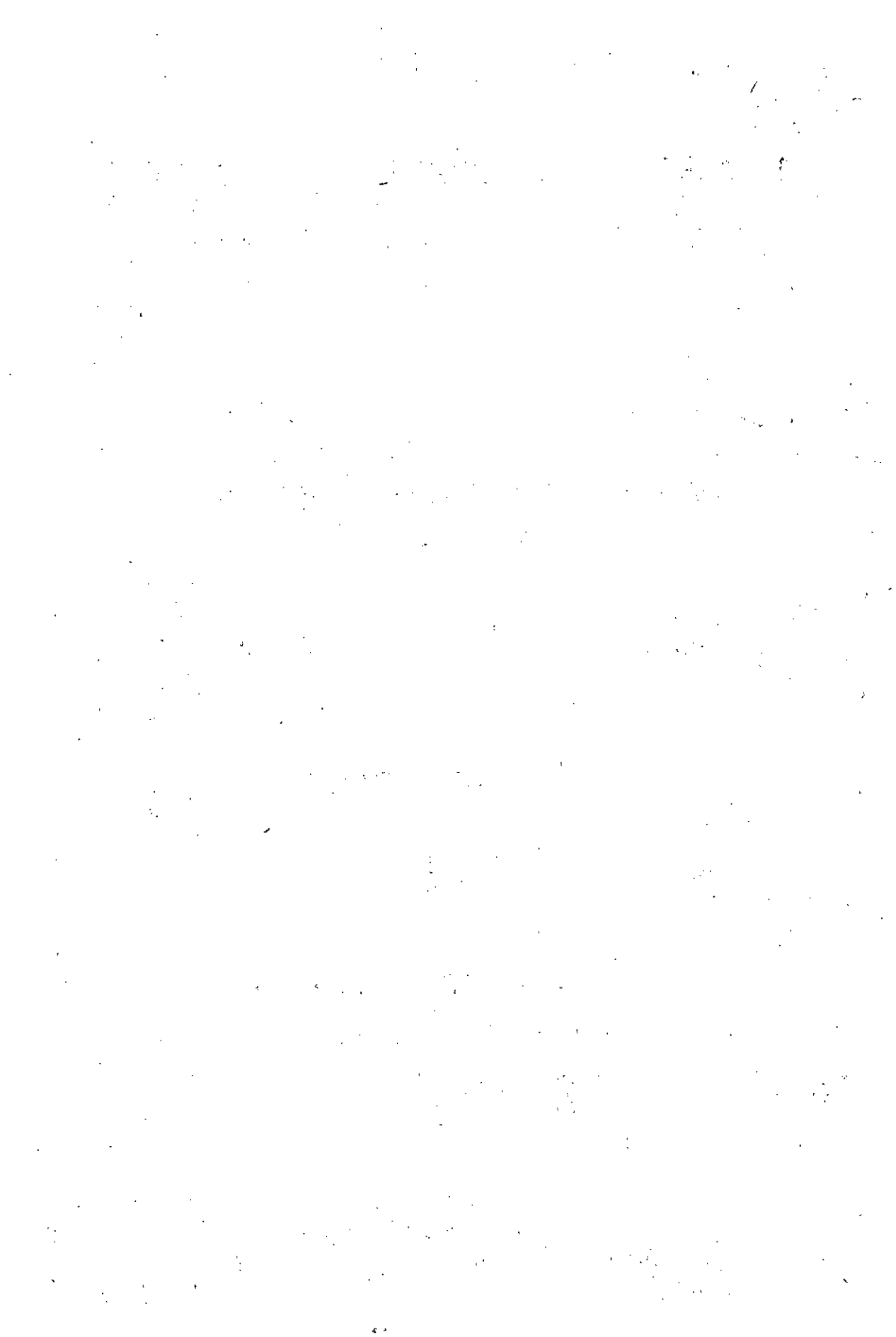
MASTER OF SCIENCE
in
Agriculture
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Department of Soil Science

Faculty of Agriculture

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APPROVAL SHEET

TRIALS FOR INCREASING THE EFFICIENCY OF ADDED PHOSPHATIC FERTILIZER

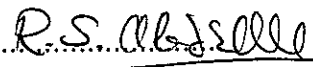
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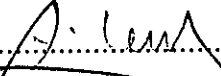
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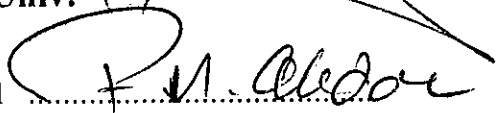
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Date of examination: 17 / 12 / 199

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ABSTRACT

Al-Salama, Yasser Jouma. Trials for increasing the efficiency of added phosphatic fertilizer. Unpublished Master of Science, University of Ain-Shams, Faculty of Agriculture, Department of Soil Science, 1998.

This work was carried out to study the effect of seed soaking in phosphorus solution and mycorrhizal inoculation on the efficiency of phosphatic fertilizer, phosphorus and some micronutrients uptake by barley plants grown on alluvium and calcareous soils.

Laboratory experiment showed that seed soaking in distilled water for 3 or 6 hours has no effect. The highest values for germination percentage, dry weights and length of shoots and roots of seedling were obtained by seed soaking in 0.5 Molar KH_2PO_4 for 6 hours.

Pot experiment, showed that mycorrhizal and non-mycorrhizal barley plants grown on either alluvium or calcareous soils responded to increasing P-level. Mycorrhizal plants of either dry or soaked seeds responded to phosphatic fertilizer rather than non-mycorrhizal plants. Seed soaking and mycorrhizal inoculation increased the efficiency of added phosphatic fertilizer and the amount of phosphorus that derived from the native soil phosphorus; however, the effect of the latter seemed to be more pronounced.

Total uptake of P, Fe, Zn, Mn and Cu by barley plants grown in both alluvium and calcareous soils increased by both seed soaking and mycorrhizal inoculation.

Key words:

Seed soaking - VA-mycorrhizal inoculation - Phosphatic fertilizer - Plant growth - P, Fe, Mn, Cu and Zn uptake - Efficiency of phosphatic fertilizer - Barley - Alluvium and calcareous soils.

