شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

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%

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التوثيق الالكتروني والميكروفيلم

بعض الوثائق الاصلية تالفة

بالرسالة صفحات

لم ترد بالاصل

NEW ASPECTS IN THE FERTILIZATION OF SANDY SOILS

BY
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B. Sc. Agric. (Soils) Faculty of Agriculture,
Ain Shams University, 1979

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in
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(Soil Science)

Department of Soil Science
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Ain Shams University

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ABSTRACT

Usama Mahmoud Marghany Gawish. Some aspects of fertilization in sandy soils. Unpublished Doctor of philosophy, University of Ain Shams Faculty of Agriculture, Department of Soil Sci., 1996.

Greenhouse pots experiement were conducted at Faculty of Agriculture, Ain Shams University, using wheat plants as a winter crop and zea maize as a summer crop, to study the effect of phosphorus and nitrogen fertilization along with mycorrhizal inoculation on growth and nutritional status of wheat plants along with beneficial residual effect on growth and nutrient content of zea maize plants grown under the same treatments of wheat experiment.

Generally, there is a significant influence on nutrients concentrations in plant. Also there is an interaction between phosphorus and mycorrhizae , whereas phosphorus affects it in two directions. The low levels of P increase mycorrhizal effect, but the high levels of it inhibit the mycorrhizal effect. There is also a significant influence of nitrogen on mycorrhizae even with the high levels of phosphorus, whereas nitrogen seems to control mycorrhizal activity. Considering, the ammonical form has a better influence, on the mycorrhizae, plant growth and nutrients uptake than the nitrate form.

Also, in the residual effect experiment, the results show a positive effect, by means that, the infected wheat plant roots with mycorrhizae has influenced maize plants roots grown at the next season.

Key words :

Nitrogen fertilization as ammonium sulphate and calcium nitrate, Phosphorus fertilization as superphosphate, Mycorrhizal inoculation, Wheat plant, Maize plant and Sandy Soil.