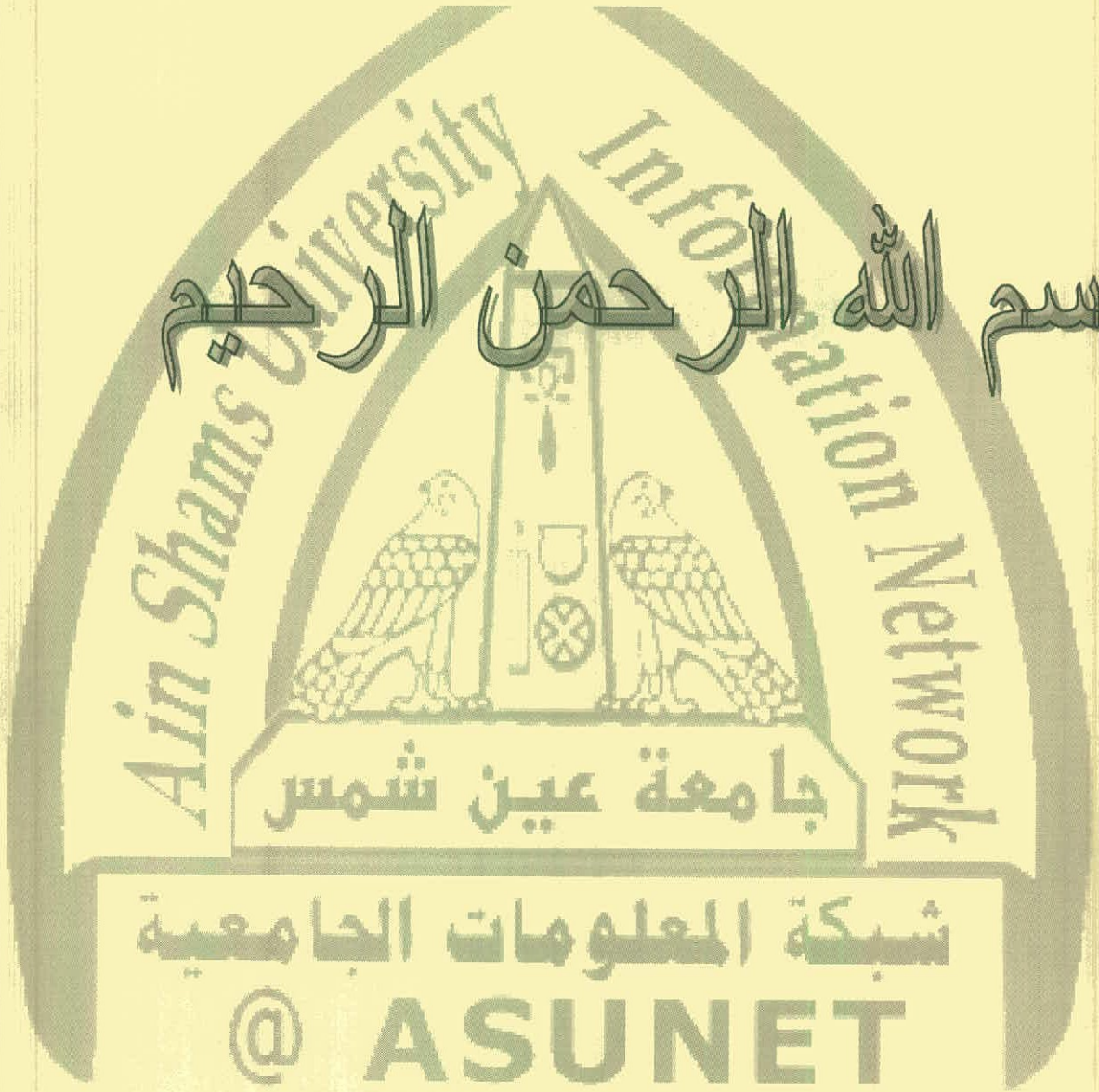
شبكة المعلومات الجامعية



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 SOURCE AND LEVEL OF PHOSPHORUS FERTILIZER ON YIELD AND QUALITY OF COMMON BEAN

(Phaseolus vulgaris L.*)*

BY

ASHRAF YAHYA ISMAEL

B.Sc. Agricultural Co. Operation Sciences 1995
Complimentary Studies in Horticulture (Vegetable Crops)
Faculty of Agric. Moshtohor, Zagazig University Benha Branch
1997.

A thesis Submitted in Partial Fulfillment
of
the Requirements For the Degree of

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In

Agricultural Science
Horticulture (Vegetable Crops)

Department of agriculture ,Faculty of Agriculture,
Moshtohor, Zagazig University, Benha Branch

2001

BENHA BRANCH
FACULTY OF AGRICULTURE, MOSHTOHOR
HORTICULTURE DEPARTMENT

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APPROVAL SHEET

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LIST OF USED APPREVIATIONS

SP = Calcium super phosphate

MAP = Monoamonium phosphate

DAP = Diamonum phosphate

GSP = Granulated super phosphate

TSP = Triple super phosphate

ABSTRACT

Two separate field experiments on common bean *(Phaseolus vulgaris* L.)cv. Nebraska were carried out to study the effect of P-level (0, 24 .32 and 40 kg P_2O_5 /fed.) within P-source (SP, MAP and DAP) as well as tim and frequency of P-application on growth, dry seed yield and its components and chemical composition of common bean plants.

Experiments were carried out under field conditions of farm of the Horticultural Services Unit, Ministry of Agriculture of Egypt at Moshtohor, Kaliobya during the two summer seasons of 1998&1999. Experimental design was split-plot in the first experiment and a complete randomized block design in the second one. Results showed that:

First experiment:

Adding Phosphorus fertilizer at 32 kg P_2O_5 /fed. as diammonium phosphate (DAP) gave higher growth, dry seed yield per plant or feddan with higher NPK content of common bean plants as compared with rate supplied with superphosphate (SP) and monoammonium phosphate (MAP) within all studied levels of P-fertilizer. This treatment increased dry seed yield /feddan by 20.2 and 37.4 % more than SP at the same level; 32kg P_2O_5/fed . in both seasons of 1998& 1999, respectively.

Second experiment:

Studies showed that adding superphosphate (SP) at 3-split applications, 50kg SP at pre- planting +100 kg SP at germination stage +50 kg SP at flowering stage, gave higher plant growth, dry seed yield with better yield components and higher composition of NPK in common bean than those received SP at one or two times with or without sulpher application at the same level of 200 kg SP / feddan .