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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 الاصلية تالفة

بالرسالة صفحات

لم ترد بالاصل

Effect of distances between plants and irrigation regime on growth and yield of faba bean

By

Essam Mohamed Mohamed El-Sadany
B.Sc. Agric.,(Agronomy) Ain Shams Univ., 1996

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

MASTER OF SCIENCE

in

Agricultural science
(Agronomy)

Department of Agronomy
Faculty of Agriculture
Ain Shams University
2000

APPROVAL SHEET

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This thesis for M.Sc. degree has been approved by:

Dr. A. H. Belal..
Prof. of Agronomy, Suez Canal University
(El-Arish North Sinai)

Dr. A. M. A. Abo-Shetaia..
Prof. of Agronomy, Ain Shams University

Dr. M. A. Ashoub.....
Prof. of Agronomy, Ain Shams University

Data of Examination: / 2000

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Under the supervision of :

Dr. M.A.Ashoub
Prof. of Agronomy, Ain Shams University

Dr. A.S.A.Edris
Prof. of Agronomy, Ain Shams University

Dr. M.A.Hamada
Assistant Prof. of Agronomy, Ain Shams University

ABSTRACT

Essam Mohamed Mohamed El-Sadany , Effect of distances between plants and irrigation regime on growth and yield of faba bean . Unpublished Master of Science Thesis, Agronomy Department , Faculty of Agriculture , Ain Shams University, 2000 .

The present investigation was carried out at the Experimental Station of the National Research Center at Shalakan, Kalubia Governorate Province during 1997 / 1998 and 1998 / 1999 seasons to study the effect of four irrigation regime and four distances between plants and their interaction on growth, yield and its components as well as the seed chemical content of the studied cultivar Giza 716 .

Results obtained indicate that increasing irrigation regime from I_1 (A control treatment where the plants received two irrigations with skipping the second and third ones viz. at flowering and pod-filling stages, respectively) to I_4 (Plants received four irrigations) increased plant height, leaf area, leaf area index, specific leaf area, number of branches, fresh weight of branches, dry weight of branches, number of leaves, fresh weight of leaves, dry weight of leaves, number of pods, fresh weight of pods, dry weight of pods, straw yield, number of seeds / pod, seed yield, weight of husk / plant, seed index, dehiscing percentage, seed yield, straw yield and biological yield / fed. , On the contrary, decreased seed protein percentage .

On the other hand, increased distances between plants from 15 to 30 cm increased leaf area, number of branches, fresh weight of branches, dry weight of branches, number of leaves, fresh weight of leaves , dry weight of leaves, number of pods, fresh weight of

pods, dry weight of pods, straw yield, number of seeds / pod, seed yield, weight of husk / plant, seed index and seed protein percentage , whereas , decreased plant height, leaf area index, specific leaf area, dehiscing percentage, seed yield, straw yield and biological yield / fed.

The interaction between irrigation regime and distances between plants showed that maximum values of leaf area, fresh weight of branches, number of pods, fresh weight of pods, dry weight of pods, number of leaves, straw yield, seed yield and weight of husk / plant. This study was obtained by I_4 with 88888 plants / fed., while the maximum interaction for seed yield, straw yield and biological yield / fed. were obtained by I_4 with 133333 plants / fed. in the first season and by I_4 with 106666 plants / fed. in the second one.

Key Words :

Faba bean , distances between plants , irrigation regime , growth , yield and yield components .

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