



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





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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

**PRODUCTIVITY OF SOME
VEGETABLE CROPS AS AFFECTED BY
INTERCROPPING SYSTEM**

By

Mahmoud Mohamed Hamed Abd EL – Baky

B . Sc . Agric . (Horticulture) , Cairo University , (1985)

M.Sc . Agric (Vegetable Crops) , Ain Shams University , (1994)

A thesis submitted in partial fulfillment

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(Vegetable Crops)

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Faculty of Agriculture

Ain Shams University

2000

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APPROVAL SHEET

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B . Sc . Agric . (Horticulture) , Cairo University , (1985)

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This thesis for Ph. D. Degree has been approved by :

Prof . Dr . Kamal M. EL- Habbasha K. M. EL-Habbasha

Prof. of vegetable crops , Horticulture Department, National Research
Center

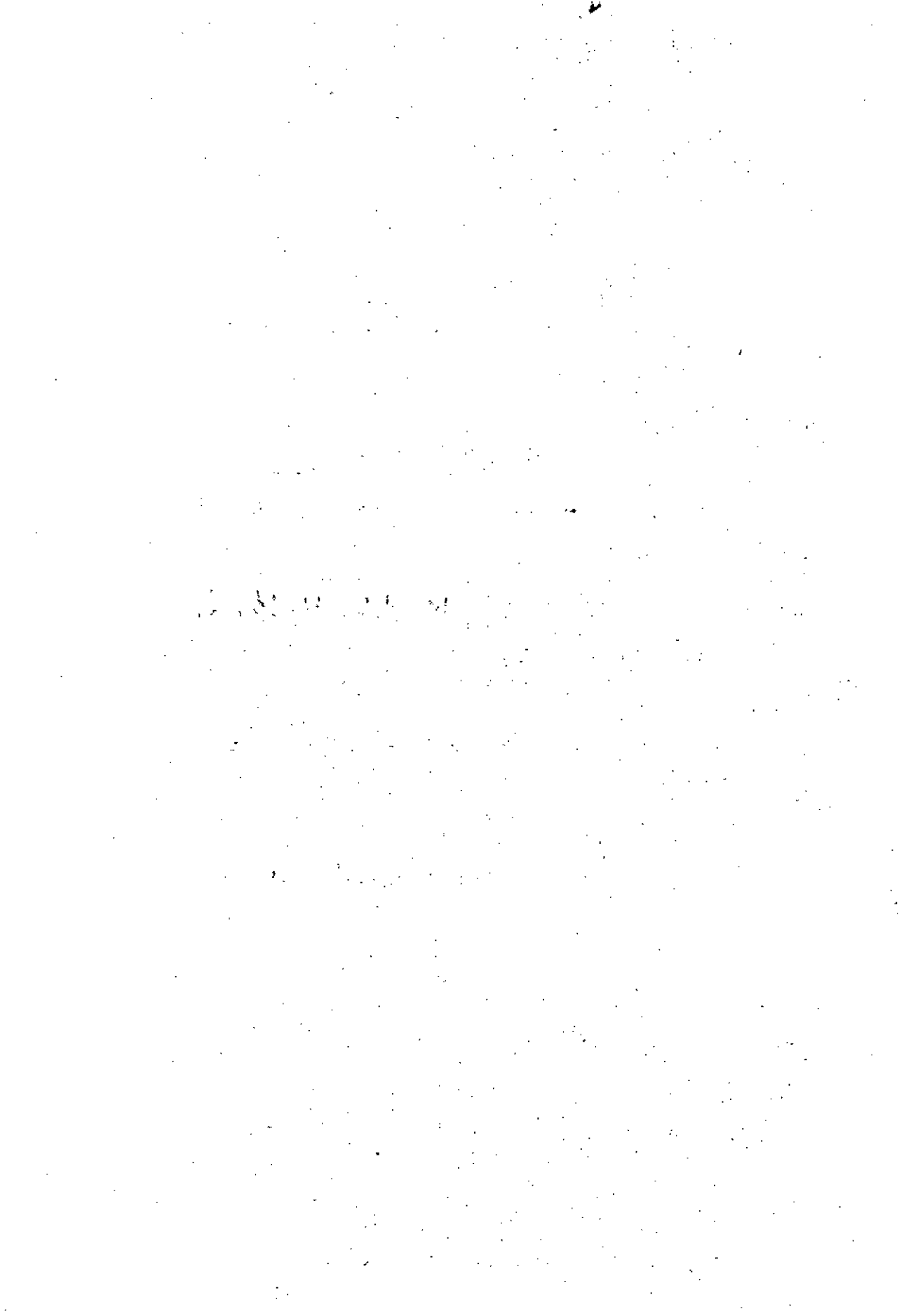
Pror . Dr . Hosnia M . Gomaa H. M. Gomaa

Prof. of vegetable crops , Horticulture Department , Ain Shams
University

Prof . Dr . Refaat M . Helal R. M. Helal

Prof. of vegetable crops , Horticulture Department, Ain Shams
University (Supervisor)

Date of examination : 16 / 7 / 2000 .



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Mahmoud Mohamed Hamed Abd EL – Baky

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M.Sc . Agric (Vegetable Crops) , Ain Shams University , (1994)

Under the supervision of :

Prof . Dr . Refaat Mohamed Helal .

Prof. of vegetable crops , Horticulture Department, Ain Shams
University (Supervisor)

Pror . Dr . Ayman Farid Abou – Hadid .

Prof. of vegetable crops , Horticulture Department , Ain Shams
University

Prof . Dr . Awatef Gharib Behairy .

Prof. of Vegetable Crops , Horticulture Department, National Research
Center

ABSTRACT

Mahmoud Mohamed Hamed Abd EL- Baky. Productivity of some vegetable crops as affected by intercropping system. Unpublished Ph. D. Dissertation, Department of Horticulture , Faculty of Agriculture, Ain Shams University , 2000 .

Two field experiments were conducted in the Agricultural Experimental station of the National Research Center (Shalakan , Kalubia) during the period from two season of 1997 to 1998 . The objective of this work was to investigate the effect of intercropping bean and / or squash on the ridges of pepper as well as evaluation of vegetative growth, yield and its quality of these crops. Moreover , studying the different root exudates of the three studied crops . The important obtained results are as follows :

- 1- The highest values of growth characters of pepper, squash and bean plants were associated with the sole planting , i.e., pepper on one side/ridge. The width of ridge ranged from 70 up to 90 cm. and the level of NPK fertilizer was (92.25:62:72 Kg / feddan compared with low level and intercrop.
- 2- The highest concentrations of N,P and K in leaves and branches of each of pepper , bean and squash plants were resulted with those plants grown as individually on one side of the ridge compared to the intercropped .
- 3- The highest yield of pepper, bean and squash were obtained from those plants grown as mono -crop on the two sides of ridge when supplied by high level of NPK . The width of ridge was 90 cm. compared with that growing on one side of ridge with low level of NPK and width of ridge of 70 cm intercropped .
- 4- The best physical and chemical properties of these crops were obtained with single growing at one side of ridge .

- 5- Increasing NPK level resulted in a increased gradually in all physical and chemical properties..
- 6- Wide plantation of pepper resulted in the highest values of average weight and size of pepper fruit compared with narrow plantation.
- 7- The width of ridge showed no significant effect on the physical and chemical properties of squash fruits .
- 8- Intercropping inhibits the vegetative growth of associated weeds.
- 9- Root exudates of pepper and squash seedlings increased the germination percentage of pepper seeds as compared with that of bean .
- 10-Pepper root exudates significantly decreased the GRI . On the other, hand bean and squash root exudates increased it.
- 11- Pepper root exudates contained the lowest amount of total phenols but bean and squash root exudates had the highest amount .

Key words :-

Intercropping , Growth characteristics , Yield, Pepper, Bean, Squash, Land equivalent ratio (LER), Relative crowding coefficient (RCC), Aggressivity (A). Competitive ratio (CR), Weeds, Nitrogen, phosphorus and potassium (NPK) , Root exudates, Total phenols, Amino acids, Growth promoters and inhibitors , Germination rate index (GRI) .

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