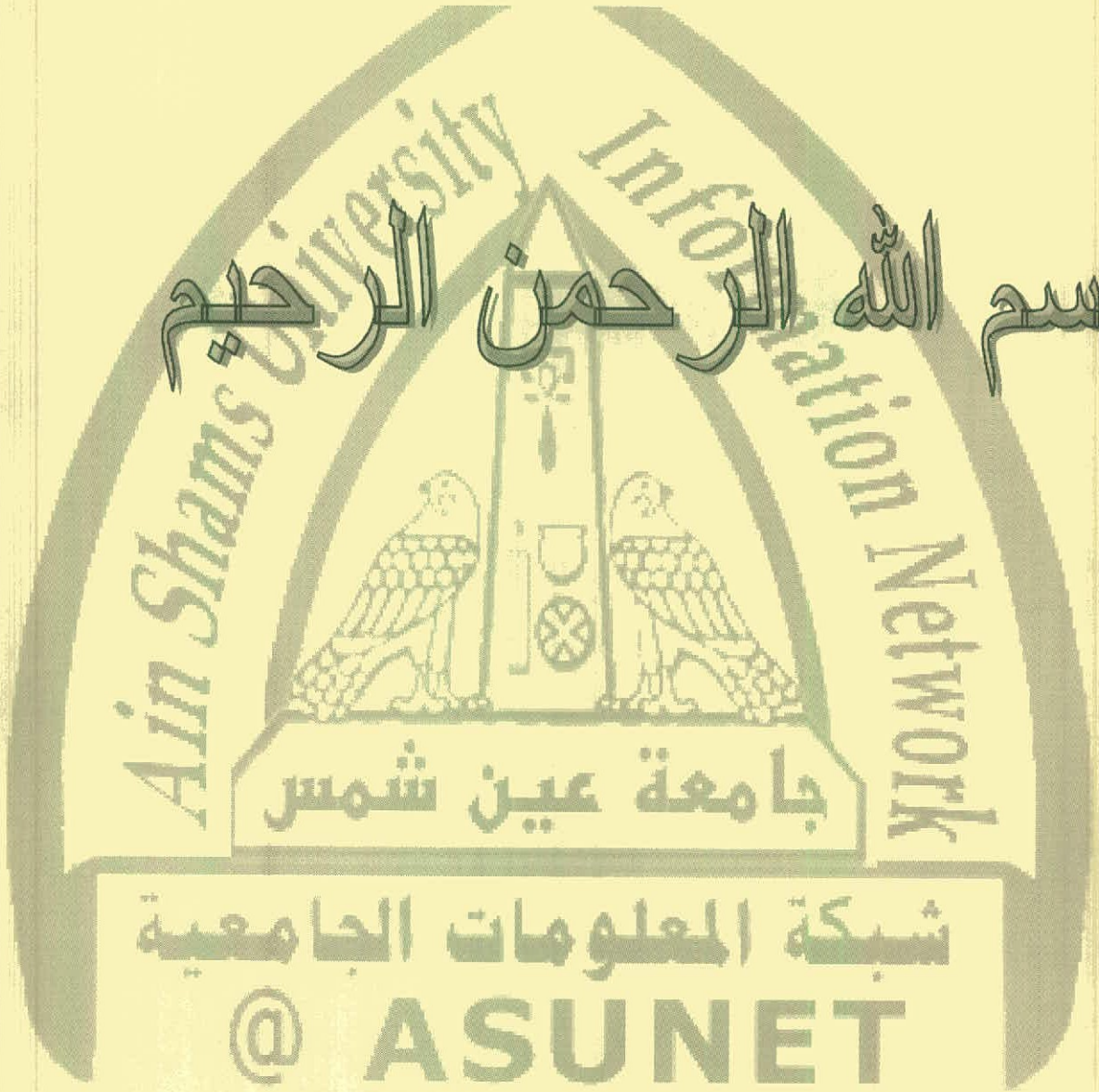
شبكة المعلومات الجامعية



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

PHYSIOLOGICAL STUDIES ON FRUIT SET IN TOMATO

By

EL-SAYED EL-BADAWY IBRAHIEM
B.Sc. Agric. Sci. (Horticulture), Fac. Agric., Cairo Univ., 2001

CASE UP

THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

In

Agricultural Sciences
(Vegetable Crops)

Department of Vegetable Crops
Faculty of Agriculture
Cairo University
EGYPT

2011

APPROVAL SHEET

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SUPERVISION SHEET

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Dr. Fayza Mohamed Darwesh
Department: Vegetable Crops
Branch: **Approval:** 24 / 3/ 2011

ABSTRACT

Two field experiments were carried out during the two successive late summer seasons of 2007 and 2008 at Barrage Horticultural Research Station, Agricultural Research Center, Qalubia Governorate, to study the effect of some stimulant compounds. viz.,KNO_3, KH_2PO_4, zinc, citric acid, ascorbic acid, Baker's yeast as well as amino acids (dipping the roots or foliar spray) and their interaction on vegetative growth, fruit set, yield, fruit characters and chemical components of tomato plants grown under high temperature. Seeds of tomato F_1 hybrid Adora were sown on 21st and 30th of March in 2007 and 2008 seasons, respectively. Tomato seedlings were transplanted on 6th and 11th of May in both seasons, respectively. The soil type of the experimental area was loamy clay. Two samples were taken after 64 and 85 days after transplanting of the two late summer seasons.

All data, i.e., plant height, number of leaves/plant, fresh weight, dry weight, leaf area, total leaf area per plant, number of days to 50 % flowering, position of the first cluster, number of clusters/plant, fruit set (%), yield and its components, fruits characters and chemical constituents of tomato plants, showed significant response to all treatments used in this study. The results had no significant differences between the application methods, i.e., dipping the roots of seedlings or foliar spray. While, the stimulant components were significantly increased all parameters as compared with control.

Generally, all interactions between the application methods and stimulant components used in this trial, showed gradually increase in the average of the studied vegetative growth parameters from 64 to 85 days after transplanting. The interactions had no significant differences of average fruit setting percentage per plant in both seasons. The most favorable beneficial interactions regarding to yield and its components were Baker's yeast as well as amino acids either roots were dipped or foliage were sprayed with these solutions in both seasons. It can be recommended that dipping the roots seedlings in Baker's yeast solution or using it as a foliar spray to enhance tomato production under heat stress.

Key words: Some stimulant compounds, application methods, growth and yield of tomato

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