بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية 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 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

STUDIES ON SOME TREATMENTS AFFECTING EARLINESS OF YIELD AND FRUIT QUALITY OF OKRA

BY

AHMED ABO EL-YAZIED AHMED ABD EL-HAFIZ
B. Sc. Agric., (Horticulture), Ain Shams Univ. 1989
M. S.C. Agric., (Horticulture), Ain Shams Univ. 1994

A thesis submitted in Partial Fulfillment
Of
The requirement for the degree of

DOCTOR OF PHILOSOPHY

In
Agriculture Science
(Vegetable Crops)

Department of Horticulture
Faculty of Agriculture
Ain Shams University
(1988)

APPROVAL SHEET

STUDIES ON SOME TREATMENTS AFFECTING EARLINESS OF YIELD AND FRUIT QUALITY OF OKRA

BY

AHMED ABO EL-YAZIED AHMED ABD. EL-HAFIZ

B. Sc. Agric., (Horticulture), Ain Shams Univ. 1989

M.Sc. Agric., (Horticulture), Ain Shams Univ. 1994

This thesis for ph.D.degree has been approved by:

Prof. Dr. A.M.Abdallah .....

Prof. Of Vegetable Crops, Fac. of Agric., Zagazig Univ.

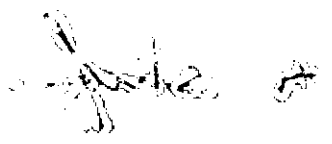
Prof. Dr. H.M.Gomaa .....

Prof. Of Vegetable Crops, Fac. of Agric., Ain Shams Univ.

Prof. Dr. A.A.Sharaf .....

Prof. Of Vegetable Crops, Fac. of Agric., Ain Shams Univ.

Date of examination / /1999 .



STUDIES ON SOME TREATMENTS AFFECTING EARLINESS OF YIELD AND FRUIT QUALITY OF OKRA

BY

AHMED ABO EL-YAZIED AHMED ABD EL-HAFIZ
B. Sc. Agric., (Horticulture), Ain Shams Univ. 1989
M. S.C. Agric., (Horticulture), Ain Shams Univ. 1994

Under the supervision of:

Prof. Dr. ABD EL-REHEM SHARAF ABD EL-MONEM
Prof. of Vegetable Crops, Horticulture Dept. Fac. Of Agric. Ain Shams Univ.

Prof. Dr. IBRAHIM IBRAHIM EL-OKSH
Prof. of Vegetable Crops, and Chairman of the Department of Horticulture, Fac. of Agric., Ain Shams Univ.

ABSTRCT

Ahmed Abo-El Yazied Ahmed Abd El-Hafiz. Studies on some treatments affecting earliness of yield and fruit quality of okra, Unpublished Doctor of Philosophy, Horticulture Department, Faculty of Agriculture, Ain Shams University, 1999.

The present study was undertaken in an attempt to investigate the suitable means for improving the earliness yield and quality of okra pods under the cool weather.

Two experimental trials were carried out in the Faculty of Agriculture, Ain Shams University, at Shoubra El-Kheima, Kalubia Governorate,. Egypt during the two successive growing seasons of 1996 and 1997.

The first experiment was performed in the laboratory to study the effect of osmoconditioning on seed germination under low temperature.

Two kind of polyethylene glycole (PEG) (6000 and 8000 daltons) and three soaking periods (24, 48, 72 hours) were used to evaluate seed vigor under two different germination temperatures (15°C and 30°C). Primed seeds were examined for germination %, mean rate of germination, field emergence percentage, seedling length, seedling diameter and number of leaves/seedling.

The second experiment was carried out under field conditions. The objective of this experiment was to determine the performance of the most favorable priming treatment for okra seeds, obtained from the laboratory trial, under field conditions, especially at early planting date, i.e., low temperature conditions. Besides, to examine the influence of some agricultural treatments i.e., planting asdirect seeding, under plastic tunnels in deep trench or using hedge row, and zinc sulphate foliar spray.

The results showed that soaking seeds in PEG 8000 as a priming solution and for 24 hours-soaking period gave the significantly enhancement germination under low temperature, emergence percentage, and growth characters of seedling i.e., length, diameter and leaves number.

The vegetative growth characters were stimulated with PEG treatment under field conditions with all different used agricultural treatments. The early yield increased, in descending order by direct seeding under polyethylene tunnels followed by spraying with zinc sulphate treatments. However, the seeding in deep trench showed the lowest value in most parameters, i.e., early yield and total yield. On the other hand, hedge row technique gave moderate behavior in most parameters and in early yield.

Key words: Okra, seed priming, polyethylene glycol, polyethylene tunnels, direct seeding, planting depth, hedge row, zinc sulphate,. earliness, fruit quality.

Acknowledgements

The writer wishes to extend my sincere appreciation to ***Dr. ABD EL-REHEM SHARAF,*** *Professor of Vegetable Crops,* ***Dr. IBRAHIM EL-OKSH,*** *Professor of Vegetable Crops and Chairman of the Department of Horticulture, and* ***Dr. AHMED EL-GIZAWY,*** *Professor of Vegetable Crops, Faculty of Agriculture, Ain Shams University for their supervision, continuous advice, valuable suggestions and encouragement during the course of the experiments and the preparation of the thesis.*

I'm also indebted to all my colleges in the Department of Horticulture, College of Agriculture, Ain Shams University and every one helped me in this thesis.

My sincere thanks are also due to my mother, brothers and may wife for their encouragement and help during the course of this study.