

عسام مقربى

تبيكة المعلومات الجامعية

بسم الله الرحمن الرحيم





عسام مغربى

شبكة المعلومات الحامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





عسام مغربى

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسو

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة يعيدا عن الغيار



New York of the Control of the Contr

عسام مغربى

شبكة المعلومات الجامعية



حسام مغربى

شبكة المعلومات الحامعية



بالرسالة صفحات لم ترد بالأصل



TAXONOMICAL STUDIES ON SOME CULTIVATED ORANGE CULTIVARS IN EGYPT

BY

SAMYA SAYED ABO BAKR

B.Sc. (HORTICULTURE, 1977), FAC. OF AGRIC. CAIRO UNIV.

Thesis
Submitted in partial fulfillment of the requirements
For the Degree of

M.SC. of Agric. Sciences
In
Fruit Science

Horticulture Department Faculty of Agriculture, Moshtohor Zagazig University (Benha branch)

2004

.

.

.

.

TAXONOMICAL STUDIES ON SOME CULTIVATED ORANGE CULTIVARS IN EGYPT.

BY

SAMYA SAYED ABO BAKR

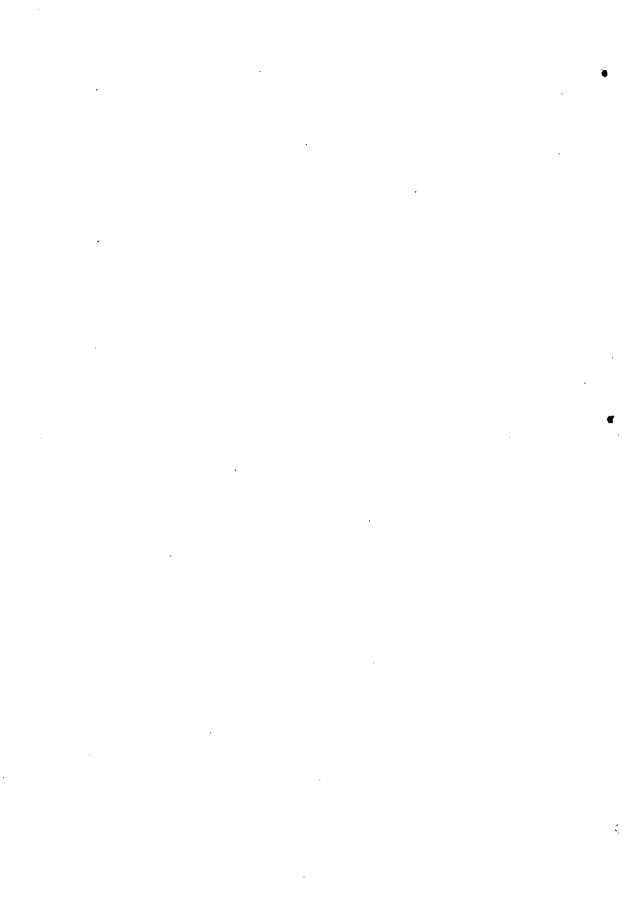
B.Sc. (HORTICULTURE, 1977), FAC. OF AGRIC., CAIRO UNIV. Supervised by

Dr. Mohamed Madbouly IbrahimProf. of Fruit Science

Dr. Ahmed Ahmed Rezk AtawiaProf. of Fruit Science

Dr. MAKHLOUF M. M. BEKHIT Asoc, Prof. of Genetics

Dr. ABD EL-MAGEED ALI ABD EL-MAGEED
First researcher in Horticulture research Institute



Approval Sheet

TAXONOMICAL STUDIES ON SOME CULTIVATED ORANGE CULTIVARS IN EGYPT

BY

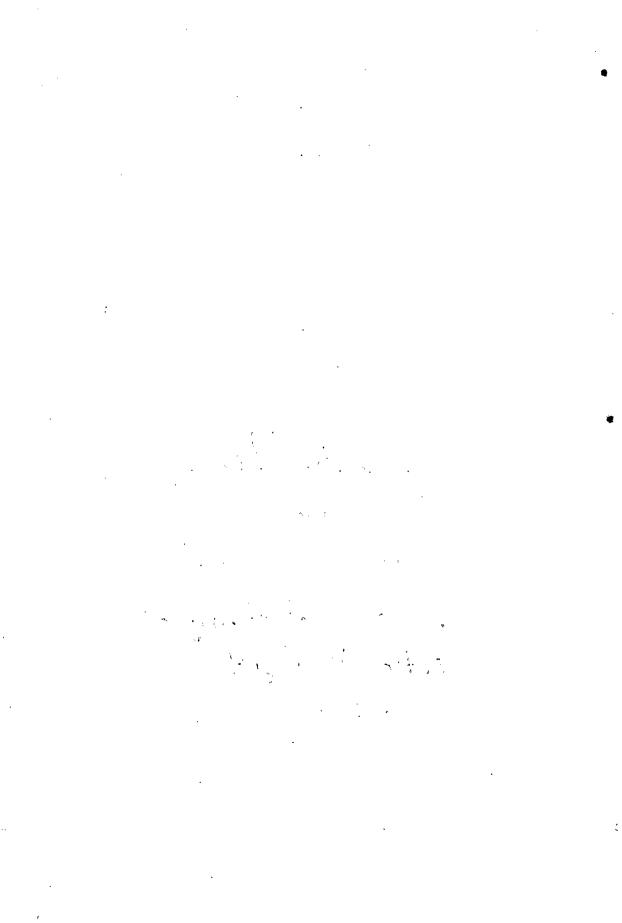
SAMIA SAYED ABO-BAKR

B.Sc. Agric. (Horticulture), Cairo Univ. 1977

This Thesis for M.Sc. Degree has been

Prof. Dr. J. J. R. Litawia	
Prof. Dr. Markh long Bethet	
Prof. Dr. Faissal F. Ahmed	
Prof. Dr. A. Abol el mig ib	1
Prof. Dr. KH.A. Bakyy	•
Prof. Dr. Madbouly	

Date of examination 26/6 /2004



ACKNOWLEDGEMENT

The author wishes to express his deepest gratitude and sincere appreciation to *Prof. Dr. Mohamed Madbouly Ibrahim*, Professor of Fruit Science, Horticulture Department, Faculty of Agriculture, Moshtohor, Zagazig University, Benha Branch, for his kind supervision, suggesting the problem, constructive and valuable criticisms, patriotic patience and untiring guidance throughout preparing and writing the manuscript.

I am also deeply indebted to *Prof. Dr. Ahmed A. Rezk E. Atawia*, professor of Fruit Science, Horticulture Department, Faculty of Agriculture, Moshtohor, Zagazig University, Benha Branch, for suggesting this reseach problem, offering the support necessary for this investigation, supervision, guidance and advice during whole period of this studt.

Acknowledgement is also extended to *Dr. Makhlouf M Bekhit*, associate professor of Genetics, Faculty of Agriculture, Moshtohor, Zagazig University for his fruitful guidance, providing facilities, aiding in cytology and guidance throughout preparing and writing the manuscript.

Special thanks are also due to *Dr. Abd El-Mageed Ali Abd El-Mageed* first researcher in Horticulture research Institute (Flora), for his supplying the energetic guidance, fruitful help and continued encouragement through writing of the manuscript.

Many thanks and gratitude should be offered to all members of the Horticulture and Genetic Department, Faculty of Agriculture, Moshtohor, and all members of the Flora Department, Horticulture research Institute, whose encouragement made this work possible.

Finally, I also feel most grateful to all my family for their continuous encouragement and patience during this work.

			•			
•						•
					•	
					•	
		•				
						•
	•					
·						•

CONTENTS

-INTRODUCTION	1
-REVIEW OF LITERATURE	. 3
-Chromosomal Behavior	3
-Pollen Fertility	14
- Number of seed per fruit	19
-SDS-page leaf protein analysis	.20
-Seed Surface Scan	22
-Seed morphology	23
-MATERIALS AND METHODS	26
-Cytological Studies	26
-SDS-page electrophoresis	28
-Seed Surface Scan	33
- Seed morphology	35
-RESULTS AND DISCUSSION	38
-Chromosomal Behavior	38
-Pollen Fertility	52
-Seed number per fruit	53
-SDS-page leaf protein analysis	56
-Seed Surface Scan and Seed morphology	65
-Seed coat surface scan	75
-Seed macro morphology aspects	80
SUMMARY	91.
LITERATURE CITED	96
ARARIC SHMMADV	

