شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قَسَـــم ﴾

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 THE EFFECTS OF GENOTYPIC VARIABILITY, SOURCE OF EXPLANT, AND CULTURE MEDIUM ON CALLUS GROWTH AND ORGANOGENIC CAPACITY OF *Cucumis sativus* L. PLANTS

BY

Mona Abdel-Rahman Ismail

B.Sc. in Botany

Suez Canal University

A Thesis Submitted in Partial Fulfillment

of the Requirements for

The Degree of Master of Science

In Botany

(Plant Tissue Culture)

Botany Department

Faculty of Science

Suez Canal University

2000

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APPROVAL SHEET

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Dedicated to .....

My family,

ABBREVIATIONS

+R	Presence of root
+S	Presence of shoot
2,4,5-T	2,4,5 Trichlorophenoxy acetic acid
2,4-D	2,4 dichlorophenoxy acetic acid
ABA	Abscisic Acid
B	Base of cotyledonary leaf
B5	Gumborg medium
BAP	Benzyladenine Purine
CIM	Callus induction medium
Cm	Centimeter
cv.	Cultivar
DNA	Deoxyribonucleic Acid
EIM	Embryo induction medium
Fig.	Figure
FW	Fresh Weight
g/l	Gram per Liter
GA	Gibberellic Acid
GLM	General Linear Model
H	Hour
HS	Hypocotyl Segment
IAA	Indol acetic acid
K or kin	Kinetin (6- furfuryl- amino Purine)
LSD	Least Significant Difference
M	Middle of cotyledonary leaf
Mg	Milligram

mg/l	Milligram per Liter
Min	Minute
mm	Millimeter
MS	Murashige and Skoog medium (1962)
MS+GA	Murashige and Skoog medium + Gibberellic Acid
NAA	α-naphthalene acetic acid
RCB	Randomized Complete Block
SAS	Statistical Analysis System
ST	Shoot Tip
T	Tip of cotyledonary leaf
μ	Micron
μ M	Micromolar
v/v	Percent (volume in volume)
w/v	Percent (weight in volume)
2ip	6- γ γ – dimelhylallylaminopurine (2ip)
IPA	Isopentyl adenine
VAR.	Variety

CONTENTS

INTRODUCTION