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جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله 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 %



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Physiological Genetic Studies to Develop Biochemical Genetic Fingerprints in Tomatoes (*Lycopersicon esculentum* Mill)

Ву

Aziza Mohamed Hassanein B.Sc. Agric. Sci., (Genetics), Ain Shams Univ., 1995

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science in Agricultural Science (Genetics)

Department of Genetics Faculty of Agriculture Ain Shams University

2001

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صفحة الموافقة على الرسالة

دراسات وراثية فسيولوجية لأستنباط بصمة وراثية بيو كيماوية في الطماطم

رسالة مقدمه من

عزيزه محمد حسنين

بكالوريوس العلوم الزراعية (وراثة), جامعة عين شمس, ٩٩٥

' للحصول على

درجة الماجستير في العلوم الزراعية

(وراثـــة)

وقد تمت مناقشة الرسالة والموافقة عليها

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Aziza Mohamed Hassanein

B.Sc. Agric. Sci., (Genetics), Ain Shams Univ., 1995

Under the Supervision of

Prof. Dr. Fatthy M. Abdel-Tawab

Prof. Molecular Genetics, Dept. Genetics, Fac. Agric., Ain Shams University.

Prof. Dr. Mohamed A. Rashed

Prof. Genetics, Dept. Genetics, Fac. Agric., Ain Shams University.

Prof. Dr. Abd El-Raouf M. Hewedy

Prof. Vegetable, Horitculture Research Institute, Agric. Research Center



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ABSTRACT

Aziza Mohamed Hassanein, Physiological Genetic Studies to Develop Biohemical Genetic Fingerprints in Tomato (Lycopersicon esculentum Mill), Unpublished Master of Science Thesis, Genetics Dept., Fac., of Agric., Ain Shams Univ., 2001.

Ten tomato cultivars were fingerprinted using yield-related traits and molecular markers. Yield-related traits included vegetative growh, yield components, fruit quality, seed yield and seed characters. Three systems of molecular markers were used, SDS-PAGE, isozymes (i.e., Esterase, Glutamate oxcaloacetate dehydrogenase and Malate transaminase. Alcohol dehydrogenase) and RAPD-PCR. Each system alone gave identification for some cultivars and could not differentiate between the closely related pairs of cultivars. Therefore, it was necessary to apply the combined class pattern system to obtain better resolution for the development of unique fingerprints for each of these cultivars. From the results of molecular markers it was possible to obtain some markers which are linked to some vieldrelated traits. Such markers could be useful in marker-assisted selection (MAS) programs.

Key words: tomato, yield-related traits, SDS-PAGE, isozyme, RAPD-PCR, fingerprints, molecular markers, MAS

