

سامية محمد مصطفى



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



سامية محمد مصطفى



شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



سامية محمد مصطفى



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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STUDIES ON VEGETATIVE PROPAGATION OF SOME STONE FRUIT ROOTSTOCKS

BY

OMAYMA MAHMOUD MOHAMED ISMAIL

B.Sc. Agric., Horticulture, Ain Shams Univ., 1993

A thesis submitted in partial fulfillment

Of

the requirements for the degree of

MASTER OF SCIENCE

in

**Agriculture
(Pomology)**

**Department of Horticulture
Faculty of Agriculture
Ain Shams University**

1998

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APPROVAL SHEET

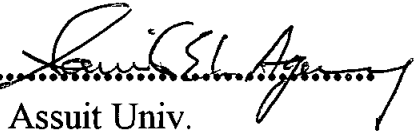
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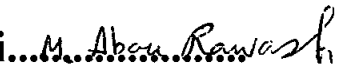
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ACKNOWLEDGMENT

The author wishes to express her deepest gratitude to **Dr. Abd El-Mongy Bayomy Abou Aziz**, the former president of the Academy of Scientific Research and Technology, Prof. of Pomology Horticulture Dept. National Research Center for his sincere supervision and encouragement during the course .

Deepest thanks is also expressed to **Dr. Assem Shaltout**, Prof. of Horticulture Dept., Faculty of Agriculture, Ain Shams University for his supervision, continuous help and sincere criticism during the course of the present investigation and his valuable suggestions and outstanding help to finish up this manuscript.

Appreciation is also expressed to **Dr. Hassan Fadel**, L lecturer in the same Faculty for his wise supervision and kind guidance.

I wish to express deep gratitude and sincere thanks to **Prof. Dr. Mohamed Salama**, Faculty of Agriculture, Cairo University (El-Fayoum Branch) for his advice and offering every possible help throughout the histological study.

The researcher is greatly indebted to the academy of scientific Research and Technology and National Research Center for financing the grant and giving different facilities throughout the whole period of investigation.

My deep thanks are offered to my family for the continuous encouragement during this investigation.

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ABSTRACT

Omayma Mahmoud Mohamed Ismail, Studies on vegetative propagation of some stone fruit rootstocks. Unpublished Master of Science thesis, Ain Shams University Faculty of Agriculture, Horticulture Department 1997

Through two successive seasons (1995 and 1996) the propagation of some peach rootstocks namely, Nemaguard, Flordaguard and Hansen was carried out using semi hardwood, hardwood cuttings and stoolbed layerings. Cuttings were treated with IBA at 0, 1000, 2000 or 4000 ppm either with or without wounding. In each season semi hardwood cuttings were prepared in July, August, September and October, whereas hardwood cuttings were prepared in November and December whether treated or untreated with storage for one month. Layering were treated by IBA at 0, 2000 or 4000 ppm with or without wounding in April and October.

The following are the best rooting results which could be obtained for each rootstock :

1. Nemaguard rootstock : Medium semi hardwood cuttings collected in September or October and treated with 1000 or 2000 ppm IBA after wounding (30.0 and 27.5% respectively). Medium hardwood cuttings collected in November and treated with 2000 or 4000 ppm IBA followed or not followed by storage (30.0 and 72.5% respectively). Layerings treated with 2000 or 4000 ppm IBA after wounding in April (91.65 and 95% respectively).
2. Flordaguard rootstock : Medium semi hardwood and hardwood cuttings failed to root in both seasons. On the other hand layerings treated with 2000 or 4000 ppm IBA

after wounding in April. Could initiated adventitious roots in percentage of 100 and 100% respectively).

3. Hansen rootstock : Medium semi hardwood cuttings collected in October and treated with 4000 ppm IBA after wounding (75%). Medium hardwood cuttings collected in November and treated with 2000 or 4000 ppm IBA with or without wounding and storage. (25 and 40% respectively). On the contrary, layering failed to root with all treatments in April and October.

Histological studied revealed that in both cuttings and layerings, root primordia initiated only from cambial zone in each of three studied rootstocks. Some root primordia failed to continue their development due to the presence of sclereids and resins which blocking the tissues.

Key words : Propagation - Peach rootstocks - Cuttings - layerings - Cutting collecting date - Wounding- Rooting percentage - Survival percentage - Histological structure.