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 THE VEGETATIVE PROPAGATION OF SOME SELECTED ALMOND STRAINS

By

HOSAM EL-DEEN MOHAMED ABDELAAL

B. Sc. Agric., Horticulture, Ain Shams Univ. 1991

A thesis submitted in partial fulfillment

Of

the requirements for the degree of

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In

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Faculty of Agriculture
Ain Shams University

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APPROVAL SHEET

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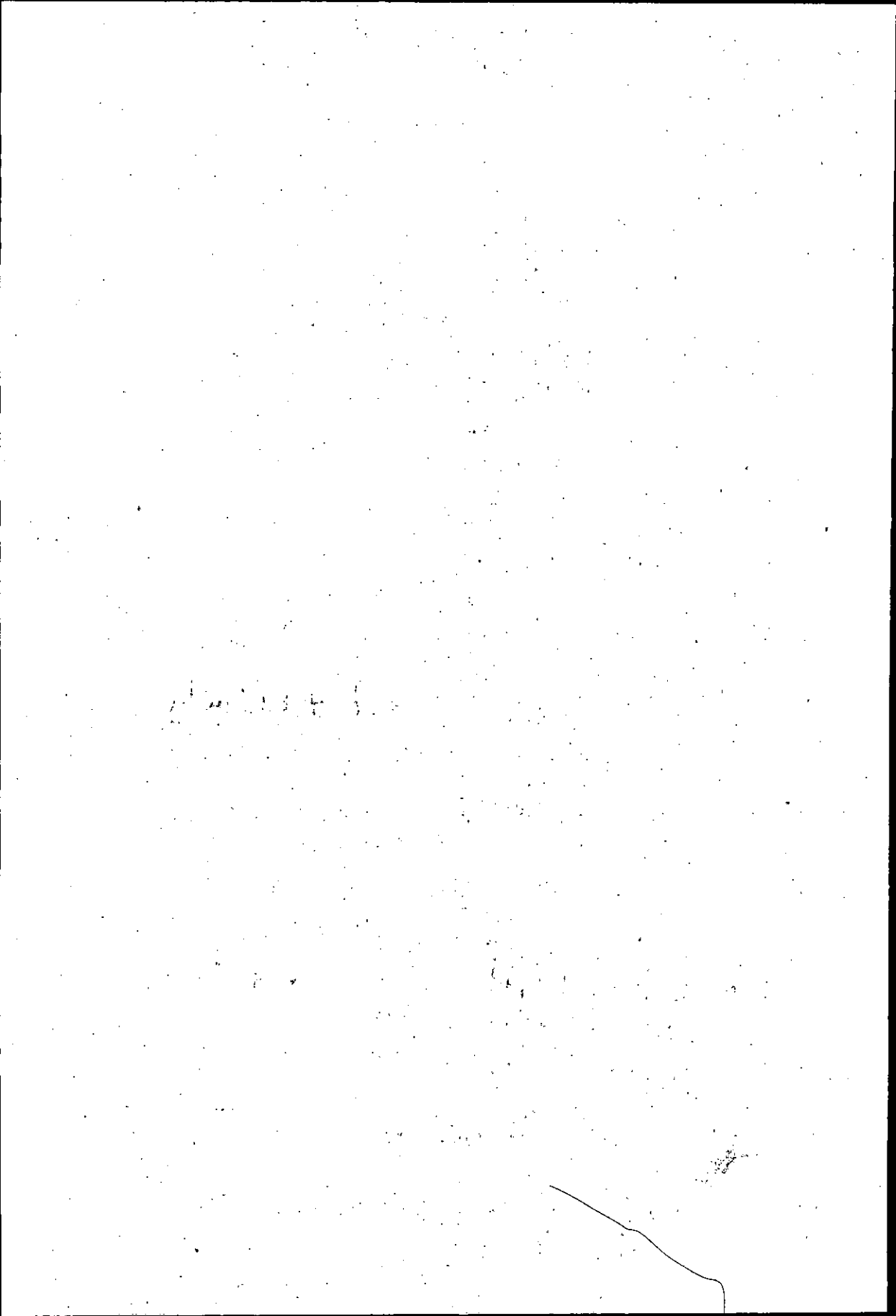

Studies On the Vegetative Propagation

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Some Selected Almond Strains

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ABSTRACT

Hosam El- deen Mohamed Abdelaal. Studies on the vegetative propagation of some selected almond strains.

Unpublished Master of Science. Horticulture Dept. Faculty of Agriculture. Ain Shams University (1999).

The present study was carried out through three successive seasons, i.e., 1995/96, 1996/97 and 1997/98 in order to evaluate the vegetative propagation of three almond cultivars (Nonpareil, Texas and Avola) using softwood, hardwood cuttings, bench grafting, budding and slotted side grafting techniques.

However, the obtained results could be summarized under the following topics.

Semi hardwood cuttings. Avola cuttings which prepared in June 1995 and treated with 4000 ppm IBA and kept under intermittent mist condition were the only ones which succeeded in root formation.

Nonpareil cuttings collected in Aug. and treated with 6000 or 8000 ppm IBA as well as Texas cuttings gathered in Aug. and treated with 4000 ppm IBA and planted under polyethylene cover could strike adventitious roots.

Hardwood cuttings. Preparing the Nonpareil hardwood cuttings from late Dec. to late Jan. and treating them with 6000 or 8000 ppm IBA gained the best rooting efficiency.

Collecting the Texas almond hardwood cuttings in late Nov. and treating them with IBA at 8000 ppm resulted in the highest rooting potentiality.

Gathering the Avola almond hardwood cuttings in late December or late January and dipping them in IBA at 6000 ppm for 5 seconds achieved the greatest rootability.

Bench grafted cuttings. Bench grafting of Marianna plum hardwood cuttings onto Nonpareil almond hardwood cuttings in December and January followed by dipping in IBA at 2000 ppm for 5 sec. induced root formation on almond cuttings. Whereas ungrafted Nonpareil cuttings failed completely to root.

Bench grafting of Texas cuttings onto Marianna plum cuttings prevented completely the root formation on plum cuttings.

Budding and grafting experiments. Shield budding achieved the highest grafting success percentage followed by slotted side grafting and yema budding regardless of the used almond cultivars.

In most cases, Nonpareil almond cv. onto Nemaguard peach seedlings showed greater take percentage than both Texas / Nemaguard and Avola / Nemaguard, irrespective to the grafting method.

Scion grafted on Nemaguard rootstock with the slotted side method showed the greatest growth parameter. Whereas almond scions on Nemaguard rootstock with yema budding technique exhibited the poorest ones.

Key words: Almond - Semi-hardwood cuttings - Hardwood cuttings - Bench graftage - Budding - Grafting - Auxin treatment - Collection dates - Rooting ability.

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CONTENTS