



شبكة المعلومات الجامعية

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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأفلام قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of  
15-25- c and relative humidity 20-40%

# بعض الوثائق الأصلية تالفة



# بالرسالة صفحات نم ترد بالاصل



**STUDIES ON THE PROPAGATION OF  
SOME ECONOMIC TREES OF THE  
FAMILY MELIACEAE**

BY

**ADEL BAYOUMI AWWAD SALAMA**

B.Sc. Agric. (Horticulture) Ain Shams Univ., 1990

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

**MASTER OF SCIENCE**

In  
**Agricultural Science**  
(Ornamental Horticulture)

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

1997

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## APPROVAL SHEET

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## ABSTRACT

**Adel Bayoumi Awwad Salama.** Studies on the propagation of some economic trees of the family Meliaceae. Unpublished Master of Science Dissertation, Ain Shams University, Faculty of Agriculture, Horticultural Department, 1997.

Neem and Chinaberry are two trees belonging to the family Meliaceae. They both exhibited many economic therapeutical uses. In addition; they are an important source of botanical insecticides by the chemical been in them as tetranortriterpenes. Environmental pollution can be reduced as these substances are not toxic, safe and biologically degradable without any enough residues.

Each of the two trees has a noticeable problem in their germination. Neem seed suffers from being deteriorated in its viability by time, which can be reduced to almost 13% after only two months. Chinaberry (*Melia*) seed exhibited hard seed coat which affects its germination. The germination rate takes more than 40 days.

Two experiments were carried on Neem and *Melia* seeds during the period from 1993 to 1996. The first was on the effect of presowing treatments on seed germination of the two trees, the main treatments were soaking in tap water for several days, in hot water (50 °C/30min) and in GA<sub>3</sub> at different concentrations for neem seed. *Melia* berry was treated with the same manner in addition to concentrated sulphuric acid. The second experiment was on the effect of seed age on germination parameter of the two species. Neem seeds were stored from ripening till 60 days and sown at intervals of 15 days. *Melia* berries were collected on March and sown monthly from April to August.

Soaking in tap water and in GA<sub>3</sub> gave the higher germination percentage. *Melia* seed coat hardness can be overcome by soaking in sulphuric acid. Neem seeds; which were

stored from ripening to 60 days showed germination percentage begins from 100% and decreases by age. Stored Melia seeds showed an increment in germination percentage till 90 days then afterward decreased. Moreover the germination rate and seedling height go parallel to germination percentage.

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**Key words:** Neem (*Azadirachta indica* A. Juss.), Chinaberry (*Melia azedarach* L.), Seed germination, Seed age, Plant growth regulators, GA<sub>3</sub>, Seed treatment, Water, Hot water, Sulphuric acid. Scarification, Cuttings, IAA, IBA, Kinetin, Woody plants, Trees, Meliaceae.

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