شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

MICROPROPAGATION OF SOME INDOOR ORNAMENTAL PLANTS

By

REDA MOHAMED ABD EL BASET
B.Sc. Agric. Sci. (Horticulture), Fac.Agric., Ain Shams University, 2002
M.Sc. Agric. Sc. (Ornam., Medic. and Aroma. Plant), Fac. Agric., Ain Shams Univ., 2009

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Approval Sheet

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ABSTRACT

REDA MOHAMED ABD EL BASET: MICROPROPAGATION OF SOME INDOOR ORNAMENTAL PLANTS. Unpublished M.Sc. Thesis, Department of Horticulture, Faculty of Agriculture, Ain Shams University, 2020.

These experiments were carried out in the Tissue Culture Laboratory, Horticulture Research Institute, Agricultural Research Center, Giza, Egypt during the period from 2015 to 2017, to investigate some factors affecting the micropropagation of 2 indoor ornamental plants *Alocasia amazonica* and *Epithelantha micromeres* by tissue culture.

The first plant: *Alocasia amazonica*

Experiment 1: Multiplication: the use of 3 ppm BAP: had the highest number of shoots. 2 ppm Kinetin: got the highest values for shoot length, shoot fresh weight and number of roots.

Experiment 2: Agar substitutes and sugar availability: potato with sugar had the highest degree for all studied characters, i.e. Number of shoots, shoot fresh weight, shoot length, number of leaves, number of roots, root fresh weight and root length.

Experiment 3: Effect of auxin type and concentration and their interaction on rooting, at 2 ppm IBA: acquired the highest number of shoots, number of leaves and number of roots. The use of 3 ppm IBA: got the highest number of shoots, number of leaves and number of roots.

Experiment 4: Acclimatization: Perlite+peatmoss: had the heaviest plant fresh weight and number of roots, while peatmoss achieved the highest value for plant fresh weight.

The second plant: *Epthelantha micromeris*: Experiment 5: soaking seeds in GA_3 at 1000 ppm for 20 min resulted in higher percentage of germination compared to soaking in a distilled water.

Experiment 6: Multiplication: BAP at 2-3 ppm obtained the greatest number of shoots and heavest cluster fresh weight. Kinetin at 3 ppm also achieved the highest number of shoots

Experiment 7: Vetrification: Agar at 11 g/l without coal achieved the lowest vetrification%.

Experiment 8: Rooting: the use of NAA at 2 ppm: got the first rank concerning number of roots, root fresh weight, shoot length and plant fresh weight.

Experiment 9: Acclimatization: Perlite, perlite+peatmoss: achieved the highest rank for number of roots and root length. Peatmoss: obtained the greatest records for plant fresh weight and plant length.

LIST OF ABBREVIATIONS

Abbreviation	:	Meaning of abbreviation
BA, BAP	:	Benzyl adenine
cm	:	Centimeter (s)
Conc.	:	Concentration (s)
Fig.	:	Figures
g	:	Gram (s)
IBA	:	Indole-3-butyric acid
l	:	Litre
mg/g	:	Milligram / gram
MS	:	Murashige and Skoog medium
NAA	:	Naphthalene acetic acid
No.	:	Number
Pl.	:	PLATES
Ppm	:	Part per milion
Tot. Chl.	:	Total chlorophyll

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