HYDRODEGRADATION OF Jatropha sp.

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FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

2005

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Micropropagation of homalomena sp / Low Sue San.

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Lihat sebelah

MICROPROPAGATION OF *Homalomena sp.*

By

Low Sue San

Research Report submitted in partial fulfilment of the requirements for the degree of Bachelor of Science (Biological Sciences)

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FAKULTI SAINS DAN TEKNOLOGI
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PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: MICROPROPAGATION OF Howalomena sp.

oleh LOW SUE SAN, no. matrik: UK 6475 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah SARJANA MUDA SAINS (SAINS BIOLOGI), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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%	Percent
mg/L	Milligram per litre
DMV	Dasheen Mosaic Virus
pv.	Pathovars
BAP	benzylaminopurine
g	Grams
ml	Milligram
°C	Degree Celsius
µM	Micromolar
2-iP	2-isopentenlyadenine
BA	N^6-benzyladenine
NAA	α-naphthaleneacetic acid.

ABSTRACT

Various problems arising from traditional propagation method of ornamental plants and its growing potential has prompted this study. Procedures for the establishment, growth and micropropagation of *Homalomena sp.* tissue culture were determined. Surface-sterilised shoot tips of the plant were established on a basal medium consisting of MS medium and 1 mg/L benzylaminopurine (BAP). The best cytokinin for growth of *Homalomena sp.* was determined using MS medium supplemented with Kinetin, BAP, Zeatin and 2-iP at various concentrations, 1 mg/L, 3 mg/L and 5 mg/L. Stem cuttings (cross section and longitudinal) were cultured in solid and liquid MS media supplemented with different concentration of 2-iP (4.5 mg/L, 5.0 mg/L and 5.5 mg/L). Plantlets cultured in medium supplemented with 5 mg/L 2-iP exhibited the highest increase in fresh weight. Maximum shoot regeneration was obtained from solid cultures supplemented with 4.5 mg/L 2-iP after 21 days.

MIKRO-PROPAGASI *Homalomena sp.*

ABSTRAK

Pelbagai masalah yang timbul dalam penghasilan tumbuhan hiasan secara tradisional dan perkembangannya adalah sebab-sebab uji kaji ini dijalankan. Prosedur untuk pertumbuhan dan mikro-propagasi *Homalomena sp.* telah ditentukan. Bahagian pucuk yang steril dikultur dalam media MS yang ditambah dengan 1 mg/L benzylaminopurine (BAP). Penentuan sitokinin yang paling baik dijalankan dengan mengkultur *Homalomena sp.* dalam media MS yang ditambah dengan Kinetin, BAP, Zeatin dan 2-iP mengikut kepekatan yang berlainan, iaitu 1 mg/L, 3 mg/L dan 5 mg/L. Keratan batang (secara mendatar dan memanjang) telah dikultur dalam media MS (pejal dan cecair) yang ditambah dengan 2-iP (4.5 mg/L, 5.0 mg/L and 5.5 mg/L). Pertumbuhan yang paling baik didapati apabila media MS mengandungi 5 mg/L 2-iP. Penghasilan pucuk maksimum pula ditunjukkan dalam eksplan yang dikultur dalam media agar MS yang ditambah dengan 4.5 mg/L 2-iP selepas 21 hari.