

GROWTH AND PERFORMANCE OF MELALEUCA
LEUCODENDRON SEEDLINGS AND STEER
CORNINGS ON DEGRADED SITE

SITI MUNIRA BT: AHMAD

FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
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GROWTH AND PERFORMANCE OF *MELALEUCA LEUCODENDRON*
SEEDLINGS AND STEM CUTTINGS ON DEGRADED SITE

By
Siti Munira Binti Ahmad

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Faculty of Science and Technology
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FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA**

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: GROWTH AND PERFORMANCE OF *Melaleuca leucodendron* SEEDLINGS AND STEM CUTTINGS ON DEGRADED SITE oleh Siti Munira binti Ahmad, no. matrik: UK8082 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains Gunaan (Pemuliharaan dan Pengurusan Biodiversiti), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh:

Penyelia **JAMILAH MOHD SALIM @ HALIM**
Pensyarah
Nama: Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Cop Rasmi Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu, Terengganu.

Tarikh: 08/05/06

Ketua Jabatan Sains Biologi

Nama: **PROF. MADYA DR. NAKISAH BT. MAT AMIN**
Ketua
Cop Rasmi: Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.

Tarikh: 08/05/06

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LIST OF ABBREVIATIONS

Ha	- Hectare
mm	- Millimeter
cm	- Centimeter
ml	- Milliliter
%	- Parts per hundred
'	- Minutes
“	- Second
°	- Degree
N	- North
E	- East

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Appendix

- A Initial Root Cuttings of *Melaleuca leucodendron*
- B Observation on planting experiment
- C Form for data observation

ABSTRACT

Performance of *Melaleuca leucodendron* cuttings of stem and root was tested on degraded site located in Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM), Terengganu. In the laboratory, seeds of *Melaleuca leucodendron* were also tested its germination ability and survival using sand as a medium. In the stem cutting experiments, older stem cuttings (0.06 - 0.12 mm in diameter) performed better than younger cuttings (< 0.05 mm in diameter) on degraded site. While rooting types of cuttings from both cuttings were similar which is fibrous root. Root quantity produced in both cuttings were differed, with older cuttings produced more roots compared to younger cuttings. Seeds showed very high germination after two weeks in sand medium, followed by extensively mortality onwards. The potential application of this species in land restoration and its invasiveness are discussed based on the results obtained.

PERTUMBUHAN DAN PERKEMBANGAN BIJI BENIH DAN KERATAN BATANG *MELALEUCA LEUCODENDRON* DI KAWASAN TERGANGGU

ABSTRAK

Perkembangan keratan batang dan akar *Melaleuca leucodendron* dilakukan di kawasan yang telah diganggu. Dalam pada itu, percambahan biji benih juga dikaji untuk melihat keupayaannya tumbuh dalam medium percambahan yang digunakan iaitu medium pasir. Keratan batang tua (diameter 0.06–0.12 mm) menunjukkan percambahan yang lebih baik dari keratan batang muda (diameter < 0.05 mm) di kawasan tanah yang diganggu. Manakala akar adalah dari jenis akar serabut. Kuantiti akar bagi kedua-dua jenis keratan batang adalah berbeza dimana keratan batang tua menghasilkan lebih banyak akar berbanding keratan batang muda. Biji benih menunjukkan percambahan yang tinggi selepas 2 minggu di dalam medium pasir namun kemudian kemortalan meningkat. Potensi spesies ini dalam pemuliharaan tanah dan kemandiriannya beradaptasi dikawasan bukan asal dibincangkan mengikut keputusan yang diperolehi.