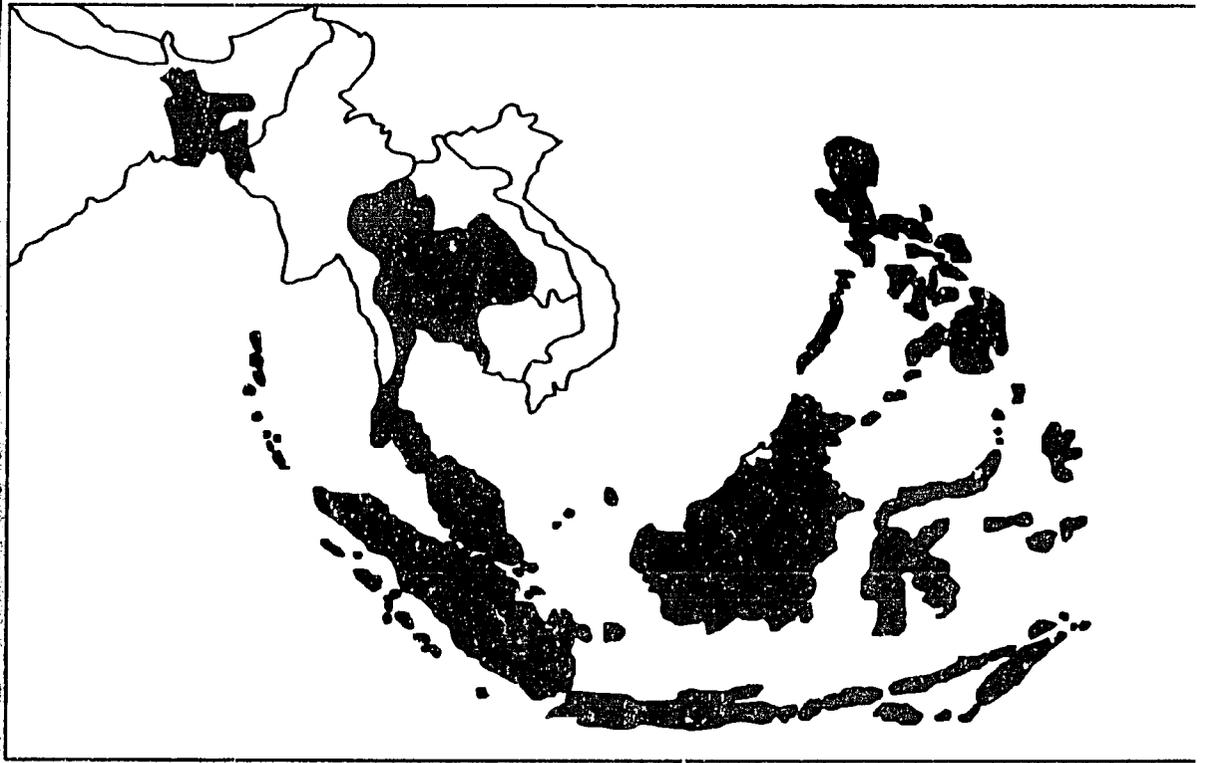


Compendium of National Research
on
Multipurpose Tree Species
1976-1990



with entries from:

Bangladesh
Indonesia
Malaysia
Philippines
Thailand

covering the genera:

Acacia, Albizia, Azadirachta
Casuarina, Eucalyptus
Gliricidia, Gmelina
Leucaena, Melia
Samanea, Sesbania

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Winrock is the primary implementing agency for the Forestry/Fuelwood Research and Development (F/FRED) Project. Funded by the U.S. Agency for International Development, F/FRED is designed to help scientists address the needs of small-scale farmers in the developing world for fuelwood and other tree products. It provides a network through which scientists exchange research plans, methods, and results. Research and development activities center on the production and use of multipurpose trees that meet the several household needs of small farmers.

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Compendium of National Research
on
Multipurpose Tree Species
1976-1990

edited by

Celso B. Lantican

David A. Taylor

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1991

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Introduction

Interest in research on multipurpose tree species (MPTS) has grown rapidly in Asia in recent years with the realization that these fast-growing trees can help improve the quality of life of poor people in rural areas. Multipurpose trees can meet farmers' needs for fuelwood, fodder, and other household products.

This compendium has been prepared to provide scientists with benchmark information on completed and on-going national research on MPTS in Asia. It is hoped that this will help them formulate more meaningful and relevant MPTS research programs and avoid costly duplication of existing research. Of course, the compendium can be very useful in identifying research gaps.

Information for the compendium was collected through a survey supported by the Forestry/Fuelwood Research and Development (F/FRED) Project. The survey was conducted in 1990 by scientists in five countries: Bangladesh, Indonesia, Malaysia, the Philippines, and Thailand.

Studies included in this compendium involve species belonging to the following genera:

Acacia
Azadirachta
Casuarina
Eucalyptus
Gliricidia
Gmelina
Leucaena
Melia
Paraserianthes
Samanea
Sesbania

In addition to studies on MPTS biology and production, research on social and economic issues affecting the use of MPTS by the rural poor is also included.

All studies were either completed from 1976 to 1990 (regardless of whether or not the results have been published), or in progress at the time the survey was conducted.

Organization of the Compendium

Entries are classified according to the genus of the species covered in the study. Studies covering species in more than one genus are listed under each genus. Within each genus, studies are arranged alphabetically according to the primary author's name.

The idea of classifying the studies under each genus by topic, following the Oxford decimal system, was considered but not adopted because of the relatively small number of studies for each genus.

The format of each entry is:

- (1) researchers' name(s)
- (2) year of publication (where applicable)
- (3) title of research and citation
- (4) language of publication
- (5) key words
- (6) executing and funding agencies
- (7) status of research
- (8) species covered
- (9) sites (with names and elevations, where available)
- (10) starting and completion dates
- (11) notes, containing abstracts or other relevant information

Software Version

All information for the compendium was entered into a microcomputer-based database called Compen. Compen was developed using Paradox, a popular database software package in the United States. Those interested in obtaining a diskette version of Compen should write to the MPTS Research Network's Secretariat at the address on the inside front cover.

Some Facts About the Compendium

Compen consists of a total of 704 records. Table 1 shows the distribution of studies by country and status. Thailand has the most records, followed by the Philippines, and Malaysia.

Table 1. Classification of study records by country and status.

Country	CP	CU	OR	Total
Bangladesh	21	5	18	44
Indonesia	36	66	-	102
Malaysia	158	6	-	164
Philippines	66	104	22	192
Thailand	200	2	-	202
Total	481	183	40	704

CP = Completed, published; CU = Completed, unpublished; OR = On-going.
 - = not reported.

All research articles published in Bangladesh, Malaysia, and the Philippines were written in English; most published articles in Indonesia and Thailand appeared in the national language (Table 2).

Table 2. Language of publication.

Country	English	National Language
Bangladesh	21	0
Indonesia	1	36
Malaysia	158	0
Philippines	66	0
Thailand	10	190
Total	256	226

Table 3 shows the variation in species focus from country to country. In Bangladesh and Thailand, *Eucalyptus camaldulensis* is the most studied species; in Indonesia and Malaysia, *Acacia mangium*; in the Philippines, *Leucaena leucocephala*.

Table 3. Number of records for each of some important species, by country.

Species	Total	BGD	INA	MAL	PHI	THA
<i>Acacia auriculiformis</i>	102	13	8	24	4	53
<i>Acacia mangium</i>	177	4	34	123	6	9
<i>Azadirachta indica</i>	19	0	0	0	0	19
<i>Calliandra calothyrsus</i>	4	0	3	1	0	0
<i>Casuarina equisetifolia</i>	32	0	0	6	1	25
<i>Eucalyptus camaldulensis</i>	144	21	0	0	5	118
<i>Eucalyptus deglupta</i>	38	0	6	7	25	0
<i>Gliricidia sepium</i>	13	0	0	5	8	0
<i>Gmelina arborea</i>	63	0	5	32	26	0
<i>Leucaena diversifolia</i>	2	0	0	1	1	0
<i>Leucaena latisiliqua</i>	1	0	0	0	1	0
<i>Leucaena leucocephala</i>	173	15	19	10	87	42
<i>Melia azedarach</i>	49	4	0	0	0	45
<i>Paraserianthes falcataria</i>	81	0	25	20	36	0
<i>Pithecellobium dulce</i>	3	0	0	0	3	0
<i>Samanea saman</i>	4	0	0	2	1	1
<i>Sesbania</i> sp.	6	2	0	2	2	0

BGD = Bangladesh; INA = Indonesia; MAL = Malaysia; PHI = Philippines;
THA = Thailand.

Updates

This compendium is a first attempt at cataloguing the wide range of MPTS studies conducted in Asia at the national level. The F/FRED Project plans to update and expand the compendium from time to time through the help of scientists and institutions in the MPTS Research Network.

Acronyms Used

ACIAR	Australian Centre for International Agricultural Research
ADSar	Agriculture Department, Sarawak
ARS	Agriculture Research Station
BARC	Bangladesh Agriculture Research Council
BARI	Bangladesh Agriculture Research Institute
BFRI	Bangladesh Forest Research Institute
BIOTROP	Institute of Tropical Biology
BTP	Seed Technology Institute, Indonesia
CSIRO	Commonwealth Scientific and Industrial Research Organization of Australia
DAC	Department of Agriculture, University of Copenhagen, Denmark
DAS	Department of Agriculture, Sabah
DENR	Department of Environment and Natural Resources
DFK	Department of Forests, Kathmandu
DJRRL	Dir. Jenderal Reboisasi dan Rehabilitasi Lahan
ERDB	Ecosystems Research and Development Bureau
FAO	Food and Agriculture Organization of the United Nations
FDM	Forestry Department, Malaysia
FDS	Forestry Department, Sabah
FF	Faculty of Forestry
FFD	Faridkot Forest Division, Muktsar, India
FFIPB	Faculty of Forestry, Bogor Agricultural University
FFUGM	Faculty of Forestry, University of Gajah Mada
FORI	Forest Research Institute
FORPRIDECOM	Forest Products Research and Industries Development Commission
FPRDI	Forest Products Research and Development Institute
FPRI	Forest Products Research Institute, Indonesia
FRI	Forest Research Institute, Indonesia
FRIM	Forest Research Institute Malaysia
FRK	Forest Research Institute Kpong
FSR	Farming System Research
GTZ	Deutsche Gesellschaft fur Technische Zusammenarbeit
IBRD	International Bank for Rural Development
IDA	International Development Association
IDRC	International Development Research Centre of Canada
IFCU	Institute of Forestry, Chittagong University
INHI	Inhutani I
JICA	Japan International Cooperation Agency
KKU	Khon Kaen University
KUFF	Kasetsart University Faculty of Forestry
LPH	Lembaga Penelitian Hutan
MARDI	Malaysian Agricultural Research and Development Institute
NBTB	North Borneo Timber Bhd.
OFRD	On-Farm Research Division
PCARRD	Philippine Council for Agriculture and Resources Research and Development
PICOP	Paper Industries Corporation of the Philippines
RFD	Royal Forest Department
SAFODA	Sabah Forest Development Authority

SRS	Silvicultural Research Station
UA	University of Aberdeen
UKM	Universiti Kabangsaan Malaysia
UNDP	United Nations Development Programme
UPCF	University of the Philippines College of Forestry
UPLB	University of the Philippines at Los Banos
UPLBCF	UPLB College of Forestry
UPM	Universiti Pertanian Malaysia
VISCA	Visayas State College of Agriculture
WB	World Bank

1.

Ab Ghani, Ab. Rasip, Darus Haji Ahmad and Mohd. Lokmal Ngah

1989. Strategies on the establishment of *Acacia mangium* clones. Regional Symposium on Recent Developments of Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
 Key Words : compensatory plantation, superior genetic quality, cloning, seed orchard, isozyme test
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

2.

Abod, Sheikh Ali

1989. Studies on root and shoot growth and their manipulations of *Acacia mangium* seedlings for the production of quality hunting stocks. Regional Symposium on Recent Developments in the Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
 Key Words : pot size, root/shoot pruning, root/shoot ratios, technique for retarding growth
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1988
 Notes : -

3.

Abood, Faizah and Mahpar Atan

1989. Susceptibility of wood from fire plantation species to *Coptotermes curvignathus*. Regional Symposium on Recent Developments in Tree Plantation of Humid/ Sub-Humid Tropics of Asia. UPM, Serdang Malaysia, 1989.

Language : English
 Key Words : forced feeding, wood blocks, weight loss of test blocks
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea,
Pinus caribaea,
Paraserianthes falcataria
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

4.

Abu Hassan, Haron B. HJ.

1984. The role of forest plantation in the long-term national timber production strategies in Peninsular Malaysia. Proceedings of the Seminar on Development of Forest Plantation in Malaysia. Sabah, Malaysia.

Language : English
 Key Words : forestation programme, compensatory plantations, timber production strategy
 Executing Agency : FDM
 Funding Agency : FDM
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : -
 Year Completed : -
 Notes : -

5.

Adisubroto, Siamet and Soetarso
 Priasukmana

1985. Teknik pembangunan persemaian *Acacia mangium* Willd. Jurnal Penel dan Pengemb. Kehutanan, Vol. 1, No. 2, Des. 1985.

Language : Indonesian
 Key Words : nursery techniques
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1985
 Year Completed : 1985
 Notes : -

6.
 Afzal, Mohd. and Zakaria Ismail

1984. Forest plantation development in Peninsular Malaysia - present state of knowledge and research priorities. Proceeding of Seminar on Forest Plantation Development in Malaysia. pp.106-119.

Language : English
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1984
 Notes : -

7.
 Afzal, Mohd., Ata Mohd. and Zakaria B. Ibrahim

1984. Forest plantation development in Peninsular Malaysia: present state of knowledge and research priorities. Proceedings of the Seminar on Forest Plantation Development in Malaysia. Kota Kinabalu/Kundasang, Sabah, Malaysia. July 1984.

Language : English
 Key Words : silviculture, reforestation, compensatory plantations, plantation

management, stand establishment, tending, protection

Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Peninsular Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

8.
 Agung, I Gusti, Anum Yudistira, Sri Sugiharti

1988. Analisis perlakuan dalam uji coba perlakuan pendahuluan benih akor (*Acacia auriculiformis* A. Cunn.). Balai Teknologi Perbenihan, 44; Agustus.

Language : Indonesian
 Key Words : treatment analysis, trial test
 Executing Agency : BTP
 Funding Agency : BTP
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : -
 Year Started : 1987
 Year Completed : 1987
 Notes : -

9.
 Ahmad, Darus B. HJ.

1988. Vegetative propagation of *Acacia mangium* willd. by stem cuttings and tissue culture techniques. PhD Thesis, University of Aberdeen.

Language : English
 Key Words : silviculture, vegetative propagation, tissue culture, cutting propagation, cytokinin
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : -

Year Completed : -
Notes : -

10.

Ahmad, Darus B. HJ.

1989. Rapid production of *Acacia mangium* plantlets using micro-propagation techniques. Reg. Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia, UPM, Serdang, Malaysia. 1989.

Language : English
Key Words : morphologically mature seedlings, nodal explant, optimum cytokinin concentration
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

11.

Akhtaruzzaman, A. F. M., S. K. Bose and Peritosh Das

1987. Effect of anthraquinone in alkaline pulping of *Acacia auriculiformis*. Bano Biggyan Patrika, 16(1&2):3-9.

Language : English
Key Words : alkaline pulping
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Acacia auriculiformis*
Sites : -
Year Started : 1984
Year Completed : 1986
Notes : -

12.

Alonzo, Dominador and Aida Valmoute
1990. Influence of age and other conditions of growth on some properties of ITPS.

FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Acacia mangium*,
Eucalyptus deglupta,
Hevea brasiliensis
Sites : -
Year Started : 1990
Year Completed : 1992
Notes : By the end of the year, the specific gravity, fiber dimensions and some chemical composition analysis of at least one plantation-grown species (e.g. *Acacia mangium*, *Eucalyptus deglupta* or *Hevea brasiliensis*) will have been determined.

13.

Ang, L. H.

1987. Some potential tree species for reclamation of tin tailings. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
Key Words : sand and slime tailings, growth performance
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Melaleuca leucadendron*,
Acacia auriculiformis,
Pinus caribaea,
Casuarina equisetifolia,
Albizia falcataria
Sites : Kepong, Malaysia
Year Started : 1986
Year Completed : 1987
Notes : -

14.

Ang, L. H. and Yussof Muda

1989. Some timber tree species for afforestation of raised sand beaches (Tanah Bris). Regional Symposium on Recent

Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
Key Words : growth performance, afforestation, soil improvement
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Pinus oocarpa*, *Acacia mangium*, *A. auriculiformis*, *Araucaria cunninghamii*, *Casuarina equisetifolia*
Sites : Kelantan, Malaysia
Year Started : 1964
Year Completed : -
Notes : -

15.
 Anonymous

1968. Report on a consignment of sunt (*Acacia nilotica* L. Willd. ex Del) from the Republic of the Sudan. FPRL - Reports on Overseas Timber No. 12, May 1968.

Language : English
Key Words : physical and mechanical properties
Executing Agency : FPRL
Funding Agency : FPRL
Status : CP
Species : *Acacia nilotica*
Sites : SDN
Year Started : 1968
Year Completed : 1968
Notes : -

16.
 Anonymous

1979. Pedoman teknis penanaman *Acacia auriculiformis*. Hlm. 1-20.

Language : Indonesian
Key Words : -
Executing Agency : DJRRL&LPH
Funding Agency : DJRRL
Status : CP

Species : *Acacia auriculiformis*
Sites : -
Year Started : 1978
Year Completed : 1978
Notes : -

17.
 Anonymous

1988. Pengamatan pencegahan hama dan penyakit tanaman *Acacia mangium*, *Swietenia macrophylla*, *Schima walichii* dan *Eucalyptus deglupta*. Departamen Kehutanan, Dirjen Reboisasi dan Rehabilitasi Lahan. Maret.

Language : Indonesian
Key Words : pest and disease prevention
Executing Agency : DJRRL
Funding Agency : DJRRL
Status : CP
Species : *Acacia mangium*, *Swietenia macrophylla*, *Schima walichii*, *Eucalyptus deglupta*
Sites : -
Year Started : 1987
Year Completed : 1988
Notes : -

18.
 Ar, M. Fabmi, Togar L. Tobing and Yusuf Sudo Hadi

1988. Pembuatan papan partikel *Acacia mangium* Willd. dengan perekat Tanin dari Ekstrak Kulit Kayunya. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : particle board, tannin glue, bark extract
Executing Agency : FF
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

19.

Awang, Kamis and C. G. De Chavez

1988. Root wrenching and controlled watering improve growth characteristics, water relations and survival of bare-rooted seedlings of *Acacia mangium*.

Language : English
 Key Words : root wrenching, seedling survival
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Serdang, Malaysia
 Year Started : 1987
 Year Completed : -
 Notes : -

20.

Awang, Kamis and Mohd. Amran

1984. Initial performance of *Gmelina arborea* Roxb. and *Acacia mangium* Willd. under plantation conditions. Malay. For. 47:255-262.

Language : English
 Key Words : -
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*
 Sites : Serdang, Malaysia
 Year Started : 1982
 Year Completed : -
 Notes : -

21.

Awang, Kamis, Mohd. Amran and M. Ghazali

1984. Initial performance of *Gmelina arborea* Roxb., and *Acacia mangium* Willd. under plantation conditions. The Malaysian Forester, Vol. 47, No. 4:255-262.

Language : English
 Key Words : initial performance
 Executing Agency : FRK
 Funding Agency : FRK

Status : CP
 Species : *Gmelina arborea*, *Acacia mangium*
 Sites : -
 Year Started : 1982
 Year Completed : 1984
 Notes : -

22.

Awang, Kamis, and Mohd. Amran Mohd. Ghazali

1984. Initial performance of *Gmelina arborea* Roxb. and *Acacia mangium* Willd. under plantation conditions. Malaysian Forestry 47(4):255-262.

Language : English
 Key Words : silviculture, site-species testing, growth
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Gmelina arborea*, *Acacia mangium*
 Sites : -
 Year Started : -
 Year Completed : -
 Notes : -

23.

Awang, Kamis and Mohd. Basri Hamzah

1986. Effects of potting mixtures and fertilizer on the growth of *Acacia mangium* Willd. seedlings. Malay. Appl. Biol. 15:31-42.

Language : English
 Key Words : potting mixture, growth of seedlings
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1986
 Notes : -

24.

Awang, Kamis and Ng Ah Bah

1989. Effect of hormones and cutting position on rooting of cuttings of *Acacia mangium* and *Shorea leprosula*. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia, UPM, Serdang, Malaysia. 1989.

Language : English
Key Words : clonal propagation, cutting of different positions, hormone concentrations
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*, *Shorea leprosula*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1988
Notes : -

25.

Badruddin, A. Z. M., M. K. U. Bhauyan and M. M. Mustafa

1989. Comparative growth study of three fuelwood species grown in the agricultural marginal land of Chittagong University campus.

Language : English
Key Word : -
Executing Agency : IFCU
Funding Agency : Authors
Status : CU
Species : *Acacia auriculiformis*, *Cassia siamea*, *Derris robusta*
Sites : Chittagong University Campus, Bangladesh
Year Started : 1985
Year Completed : 1989
Notes : -

26.

Baharuddin, Johari

1987. An appraisal of the compensatory plantation programme in Peninsular Malaysia. Seminar on the Future Role of

Forest Plantations in the National Economy and Incentives Required to Encourage Investments in Forest Plantation Development. Sabah, Malaysia, December 1987.

Language : English
Key Words : forest policy, compensatory plantations, economics, sensitivity analysis
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*
Sites : -
Year Started : -
Year Completed : -
Notes : -

27.

Baharuddin, Johari and T. Y. Chin

1986. Review of plantation experiences in Peninsular Malaysia. Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia, 13-20 October 1986.

Language : English
Key Words : -
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*
Sites : Malaysia
Year Started : -
Year Completed : 1986
Notes : -

28.

Banowati, Laksmi, Salman Parisy and Yahya Fakuara

1987. Pengaruh beberapa jenis kontiner dengan medium tumbuh gambut terhadap pertumbuhan *Acacia mangium* Willd. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : container, peat growth medium
Executing Agency : FFIPB (Faculty of

Forestry, Bogor Agricultural University)
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1986
Year Completed : 1987
Notes : -

29.

Becker, E. S.

1987. Evaluation of samples of *Acacia mangium*, *Eucalyptus deglupta* and *Gmelina arborea* for kraft pulping, bleaching and paper strength properties. Report to North Borneo Timber Bhd. Econotech Service Ltd.

Language : English
Key Words : pulping, bleaching, strength properties
Executing Agency : NBTB
Funding Agency : NBTB
Status : CP
Species : *Eucalyptus deglupta*, *Gmelina arborea*, *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

30.

Belen, Roberto E.

1987. The effects of various levels of nitrogen and phosphorus on the macro- and micronutrients content and uptake by *Acacia auriculiformis* A. Cunn. ex. Benth seedlings. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : macronutrient uptake, micronutrient uptake
Executing Agency : -
Funding Agency : PCARRD-RRDP
Status : CU
Species : *Acacia auriculiformis*
Sites : College, Laguna,

Philippines

Year Started : 1985
Year Completed : 1985
Notes : *Acacia auriculiformis* A. Cunn. Ex. Benth seedlings planted in pots containing Carranglan soil were treated with factorial combinations of 0, 30, 60 and 120 kg/ha of N and P fertilizers. Fertilizer application of 120 kgs./ha and 30 kgs. of P/ha increased root dry matter yield of seedlings after six months. Other growth parameters were not significantly affected by the N and P fertilizer treatments. Application of N and P fertilizers increased pH of the soil making Fe, Mn, Cu, and Zn unavailable to the plant. Nitrogen fertilization increased Mn content, reduced Cu and Zn contents and reduced Zn and N uptake of seedlings. Phosphorus fertilization increased the total P, Mg content, and P uptake, and decreased the Fe, Mn, Cu content, Fe and Zn uptake.

31.

Biag, Esmeralda

1984. Germination of Maber (*Acacia mangium* Wild.) as affected by different soil media under Rosario, La Union condition. Undergraduate Thesis. DMMMSU-CAF, Rosario, La Union, Philippines.

Language : English
Key Words : germination, soil media
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Acacia mangium*
Sites : Alipang, Rosario, La Union, Philippines
Year Started : 1983
Year Completed : 1984
Notes : This study aimed to determine the germination rate for Maber as affected by different soil media. The treatments used were: T1 sand, T2 ordinary garden soil, T3 1:1 ratio of sand and ordinary garden soil, T4 1:1 ratio of (sand) ordinary garden soil and decomposed sawdust, T5 1:1, 1 ratio of sand, ordinary garden soil and decomposed sawdust. Polyethylene plastic bags were used as potting media with 10 sample plants per replication four times laid out using the completely randomized design

(CRD). The study revealed that there were significant differences in the average height seedlings 30 days after sowing and 60 days after sowing; average diameter of seedlings 60 days after sowing, average diameter of seedlings 90 days after sowing and the average height increment of seedlings 90 days after sowing. However, findings indicated no significant difference in the average number of days from sowing to germination, average diameter of seedlings 30 days after sowing, average monthly diameter increment of 90 days after sowing, and percentage survival of seedlings after sowing.

32.

Boland, D. J. and K.Pinyopusarerk

1987. Early growth and survival of some Eucalyptus and Australian tree species planted at Tung Kula Ronghai Development Project in northeastern Thailand. Thai Journal of Forestry 6(3):250-267.

Language : English
Key Words : height, survival, Tung Kula Ronghai
Executing Agency : CSIRO/RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*
Sites : Amphoe Phayakkhaphum Phisai, Changwat Maha Sarakham, Amphoe Kaset Wisai, Pathum Rat, Suwannaphum, Changwat Roi Et, Thailand (500m)
Year Started : 1987
Year Completed : 1987
Notes : Amphoe Tha Tum, Chumpon Buri, Changwat Surin, Amphoe Maha Chana Chai, Kho Wang Changwat Yasothon, Amphoe Rasi Salai, Changwat Sri Sa Ket.

33.

Boontawee, Boonchoob, Bunyarit Puriyakorn, Surachai Pransin, Koetkong Pitpricha, Somboon Kiratiprayoon and Thiti Wisarat

1988. Aboveground biomass of five-year-old fast-growing species grown in different spacings. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
Key Words : biomass, spacing
Executing Agency : RFD
Funding Agency : RFD
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Azadirachta indica*, *Cassia siamea*, *Leucaena leucocephala*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai, Amphoe Muang, Changwat Ratchaburi, Amphoe Chum Phae, Changwat Khon Kaen, Thailand
Year Started : 1981
Year Completed : 1986
Notes : -

34.

Bowen, M. R.

1981. A note on seed collection, handling and storage techniques, including some experiment data information on *Acacia mangium*, *A. auriculiformis* and probable *A. mangium* and *A. auriculiformis* hybrid. FAO/UNDP- /78/009. Forest Research Centre, Sepilok, Sabah, Malaysia.

Language : English
Key Words : seed collection, storage technique
Executing Agency : FRCS
Funding Agency : FAO/UNDP
Status : CP
Species : *Acacia mangium*, *A. auriculiformis*
Sites : Sabah, Malaysia

Year Started : -
 Year Completed : 1981
 Notes : -

35.

Bowen, M. R. and T. V. Eusebio

1981. *Acacia mangium*: updated information on seed collection, handling and germination testing. Occasional Technical and Scientific Notes. Seed Series No. 5, FAO/UNDP-778/009, 26pp.

Language : English
 Key Words : seed collection
 Executing Agency : FDM
 Funding Agency : UNDP
 Status : CP
 Species : *Acacia mangium*
 Sites : Malaysia
 Year Started : 1978
 Year Completed : 1981
 Notes : -

36.

Bowen, M. R. and T. V. Eusebio

1982. Seed handling practices: four fast-growing hardwoods for humid tropical plantations in the eighties. Malaysian Forestry 45(4):534-547.

Language : English
 Key Words : silviculture, seed technology, seed storage
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia mangium*,
Albizia falcataria,
Eucalyptus deglupta
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

37.

Braza, Ricardo D.

1987. Resistance of seedlings of four plantation tree species to white grubs, *Leucopholis irrota* (chevrolat) (Coleoptera: Scarabidae). Philippine Forest Research Journal 12(1 & 2):1-7.

Language : English
 Key Words : varietal resistance, pest management, *Leucopholis irrota*, tree plantation
 Executing Agency : PICOP
 Funding Agency : PICOP
 Status : CP
 Species : *Eucalyptus deglupta*,
Acacia mangium,
Pinus caribaea
 Sites : Bislig, Surigao del Sur,
 Philippines

Year Started : 1987
 Year Completed : 1987
 Notes : Seedlings of *Eucalyptus deglupta* Blume, *E. urophylla* S.T. Blake, *Acacia mangium* Wild. and *Pinus caribaea* (Royle ex Gordon) were studied for their resistance to white grubs (*Leucopholis irrota* (chevrolat) (Coleoptera: Scarabidae)). The study showed that the four species were as highly susceptible to the pest as *Albizia falcataria* (control). Like *A. falcataria*, all the roots of 100% of the seedlings of the four species were eaten by white grubs after a two-week exposure to the pest. The mortality rate among the four species ranged from 50 to 80%, and was not significantly different from the 80% mortality rate for *A. falcataria*.

38.

Bunsoemsuk, Samit and Prawit
 Chitchamnong

1989. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:113-119.

Language : Thai
 Key Words : genetics, isozyme analysis
 Executing Agency : RFD
 Funding Agency : -
 Status : CP

Species : *A. indica*, *Acacia mangium*, *A. auriculiformis*
Sites : Ratchaburi, Bangkok, Nakhon Si Thammarat, Saraburi, Nakhon Sawan, Prachuap Khiri Khan, Patthalung, Chonburi, Nakhon Ratchasima, Thailand
Year Started : 1988
Year Completed : 1988
Notes : -

39.

Bunyavejchewin, Sarayudh and Bunyarit Puriyakorn

1984. Net primary productivity of five tree species and change in soil properties after 30 months of growth. Proceedings of the Forestry Conference, Royal Forest Department, 2:148-165.

Language : Thai
Key Words : biomass, soil properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Cassia siamea*, *Azadirachta indica*
Sites : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
Year Started : 1982
Year Completed : 1983
Notes : Maximum primary productivity was recorded for *E. camaldulensis* in comparison to the remaining 4 species. Major soil nutrients were higher than the adjacent area 30 months after tree plantings.

40.

Bunyavejchewin, Sarayudh and Kamomwat Wisetsiri

1986. Studies on the growth, above-ground dry matter and firewood production of a 3-year-old sample of *Acacia auriculiformis* Cunn. and *Peltophorum* Back. Ex. Heyne at Dhong Larn, Khon Kae. Silvicultural Research Bulletin, Royal Forest Department.1:323-341.

Language : Thai
Key Words : growth, biomass, firewood production
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*
Sites : Amphoe Chum Phae, Changwat Khon Kaen, Thailand (500m)
Year Started : 1983
Year Completed : 1984
Notes : -

41.

Bunyavejchewin, Sarayudh, Bunyarit Puriyakorn and Boonchoob Boontawee

1983. Above-ground biomass firewood and charcoal production, and nutrient and energy of characteristics five tree species. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 132-143.

Language : Thai
Key Words : biomass, firewood, charcoal production, nutrient
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *A. indica*, *C. siamea*
Sites : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
Year Started : 1983
Year Completed : 1983
Notes : Maximum above-ground biomass, firewood, charcoal production and nutrient accumulation were recorded for *L. leucocephala* while the minimum values were

found for *A. auriculiformis*.

42.

Butt, G. and P. C. Sia

1982. Guide to site-species matching in Sarawak. Forest Reserve Report S.S.1:61pp.

Language : English
 Key Words : site-species matching, soil suitability classes, edaphic tolerances
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

43.

Butt, G. and S. P. Ting

1983. A site suitability study of *Acacia mangium* Willd. at Oya Road Plantation Reserve, Sibul. Forest Research Report S.S. 5:27pp.

Language : English
 Key Words : site suitability, soil fertility, soil drainage
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

44.

Chai, F. Y. C.

1986. Growth of *Acacia mangium* Willd. at Oya Road Experimental Plantation Reserve. Working Papers Vol II:1-19.

Language : English
 Key Words : silviculture, growth, pink disease

Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

45.

Chai, F. Y. C.

1986. Growth of *Acacia mangium* Willd. at Oya Road Experimental Plantation Reserve. Persidangan Perhutanan Malaysia ke Sembilan, Kuching, Sarawak.

Language : -
 Key Words : degraded land, height increment, pink disease
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sibul, Malaysia
 Year Started : 1977
 Year Completed : -
 Notes : -

46.

Chaichanasuwat, Ornanong, Bandit Kobmu, Prapan Pukruttayakamee and Pisa Wasuwanich

1988. Seed quality testing by x-radiography. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department.

Language : Thai
 Key Words : seed, X-radiography
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*, *Azadirachta indica*, *Melia azedarach*
 Sites : Thailand
 Year Started : 1988
 Year Completed : 1988
 Notes : -

47.
Chaloempong, Aniwat, Theerawat
Buntaweekul and Krutsana Rodsenglam

1983. Seed-borne fungi and disease of Thai forest tree species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Biology Section. 91-95.

Language : Thai
 Key Words : fungal diseases
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*,
Leucaena leucocephala,
Melia azedarach
 Sites : Amphoc Muang,
 Changwat Lampang
 (200-2,000m)
 Year Started : 1983
 Year Completed : 1983
 Notes : Describes some seed-

borne fungi and diseases as follows:
Botyodiplodia theobromae in *A.*
auriculiformis; *Drechslera rostrata*, *Fusarium*
oxysporum, *Promopsis* sp., and *B.*
theobromae in *M. azedarach*; and *D.*
hawaiiensis in *L. leucocephala*.

48.
Chan, H. H.

1983. Graded sawn recovery study of *Acacia mangium*. Forest Research Centre, Sabah, Malaysia. Publication No. 11.

Language : English
 Key Words : Recovery of sawn
 timber
 Executing Agency : FRCS
 Funding Agency : FRCS
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1983
 Notes : -

49
Chan, H. H.

1984. Graded sawn timber recovery study of *Acacia mangium*. Malaysian Forestry 47(2):116-124.

Language : English
 Key Words : forest products, sawn
 timber grading, defects
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Ulu Kukut, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

50.
Chee, T. Y. and S. Ridwan

1984. Fast growing species of trees suitable for urban roadside and shade planting. Malaysian Forestry 47(4):263-278.

Language : English
 Key Words : urban forestry,
 ornamental trees
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : -
 Year Completed : -
 Notes : -

51.
Chew, L. T. and A. Jaafar

1986. Particleboard from *Acacia mangium*. Proceedings of the Ninth Malaysian Forestry Conference. Sarawak, Malaysia.

Language : English
 Key Words : forest products, particle
 board
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -

Notes : -

52.

Chew, L. T., Nurulhuda Mohd. Nasir, C. L. Ong and Rahim Sudin

1989. Particleboards from some plantation species. Regional Symposium on Recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia.

Language : English
 Key Words : type one board, single layer or three-layer board
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*, *Pinus caribaea*, *Gmelina arborea*, *Hevea brasiliensis*
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

53.

Chew, T. K.

1987. Assessment of termite-attack and heart-rot on thinned *Acacia mangium* trees.

Language : English
 Key Words : forest injuries and protection, termites, heart-rot
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

54.

Chey, V. K.

1987. Insect defoliators of forest plantation

trees in Sabah. Forest Research Centre Publication No. 32. 79pp.

Language : English
 Key Words : forest injuries and protection, insect pest, defoliators
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

55.

Chin, F. H.

1980. Diseases of nursery importance in Sarawak. Pathology Research Report Series 2. 13pp.

Language : English
 Key Words : forest injuries and protection, nursery diseases, sooty mould, *Meliola* sp.
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

56.

Chin, F. H.

1986. A preliminary investigation into pathogenic nematodes in forest nurseries and plantations of Sarawak. Forest Research Report FP3. 22pp.

Language : English
 Key Words : entomology, nematodes, morphology, life cycle, habitats, damages
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP

Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

57.

Chin, F. H.

1986. *Meloidogyne* spp: cause of rot-knot of *Acacia mangium* Willd. seedlings. Forest Research Report FP4:9pp. Also in Proceedings of the Ninth Malaysian Forestry Conference. Sarawak, Malaysia.

Language : English
 Key Words : nursery diseases, nematode, control measures

Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

58.

Chitchamnong, Prawit and Nutthakorn Semsuntud

1989. Tissue culture of *Eucalyptus camaldulensis* Dehnh. and *Acacia auriculiformis* Cunn. Proceedings of the Forestry Conference. Royal Forest Department, Silvicultural Section 1:131-143.

Language : Thai
 Key Words : tissue culture
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*

Sites : King Amphoe Nam Kliang, Changwat Si Sa Ket, Amphoe Bang Saphan Noi, Changwat Prachup Khiri Khan, Thailand (130-400m)

Year Started : 1988
 Year Completed : 1988
 Notes : *E. camaldulensis*: Optimum chemical was Chlorox (Sodium hypochloride) 5%/30mins. and optimum culture was White + IBA 1um. *A. auriculiformis*: Optimum chemical was Chlorox 5%/45mins., and optimum culture was MS + IAA um.

59.

Chomchan, Arun and Suthi Visuthldhepkul

1981. Proceedings of the Forestry Conference. Royal Forest Department, Forest Product Section, 335-354.

Language : Thai
 Key Words : physical properties, mechanical properties

Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*, *Casuarina equisetifolia*, *C. junghuhniana*

Sites : Changwat Prachuap Khiri Khan, Nakhon Ratchasima, Songkhla, Khon Kaen, Chaiyaphum, Ratchaburi, Nakhon Si Thammarat, Si Sa Ket, Thailand (130-500m)

Year Started : 1981
 Year Completed : 1981
 Notes : -

60.

Chomchan, Arun and Winai Panyathanya

1981. Proceedings of the Forestry Conference. Royal Forest Department, Forest Product Section, 213-228.

Language : Thai
 Key Words : fast-growing species, density, ash content, calorific value

Executing Agency : RFD
 Funding Agency : -

Status : CP
Species : *Eucalyptus camaldulensis*,
Casuarina junghuhniana,
Acacia auriculiformis,
Leucaena leucocephala,
A. indica, *T. siamensis*,
B. arundinacea
Sites : Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

61.

Chomchan, Arun, Suthi Visuthidhepakul
and Pirom Hoatakul

1985. Properties and utilization of fast-growing trees. Proceedings of the Forestry Conference. Royal Forest Department. 2:298-329.

Language : Thai
Key Words : mechanical and
 physical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Acacia auriculiformis,
Casuarina junghuhniana,
C. equisetifolia, *Melia*
azedarach, *Eucalyptus*
camaldulensis
Sites : Amphoe Sanam Chai
 Khet, Changwat
 Chachoengsao, Amphoe
 Khon San, Changwat
 Chaiyaphum, Amphoe
 Pak Chong, Changwat
 Nakhon Ratchasima,
Year Started : 1985
Year Completed : 1985
Notes : -

62.

Chomchan, Arun, Winai Panyathanya,
Thongtham Chaikwang, Pramuk
Thichakorn and Arkom Wetsupasuk

1981. Proceedings of the Forestry
Conference. Royal Forest Department.
Forest Product Section, 229-254.

Language : Thai
Key Words : Fast-growing species
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Casuarina junghuhniana,
C. equisetifolia, *Leucaena*
leucocephala
Sites : Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

63.

Chong, L.

1986. Occurrence of mycorrhizae in
seedlings of some tree species in Sarawak.
Proceedings of the Ninth Malaysian Forestry
Conference. Sarawak, Malaysia. Also
published as Forest Research Report No.
FP5.

Language : English
Key Words : autecology, symbiotic
 relationship, mycorrhiza,
 VA-mycorrhiza,
 ectomycorrhiza
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*, *A.*
auriculiformis
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : -
Notes : -

64.

Chunsukjaiprasert, Thamrong, Chalrat
Chayamarut and Saman Rualsungnoen

1985. Above-ground biomass and firewood
production of *Leucaena leucocephala*,
Acacia auriculiformis and *Docynia*
indica-Five years at Watershed
 Development. No. 32 (Doi Musoe), Tak,
 Thailand.

Language : Thai
Key Words : biomass, firewood

production
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Leucaena leucocephala
Sites : Amphoc Mae Sot,
 Changwat Tak,
 Thailand (800m)
Year Started : 1984
Year Completed : 1985
Notes : *A. auriculiformis* and
L. leucocephala were found to have high
 biomass and firewood production in
 watershed area.

65.
Das, Someswar

1984. Nursery and plantation techniques for
Acacia mangium. Silviculture Division,
 Bulletin No. 3, Bangladesh Forest Research
 Institute, Chittagong, p. 35.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI/UNDP
Status : CP
Species : *Acacia mangium*
Sites : Chittagong, Bangladesh
Year Started : 1978
Year Completed : 1983
Notes : -

66.
Das, Someswar

1986. Nursery and plantation techniques for
Acacia auriculiformis. Silviculture Research
 Division, Bulletin No. 7, Bangladesh Forest
 Research Institute, Chittagong, p. 28.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Acacia auriculiformis*
Sites : Chittagong, Sylhet
 and Dinajpur,
 Bangladesh

Year Started : 1983
Year Completed : 1985
Notes : -

67.
Dichoso, Maximo O.

1984. Drought tolerance of some
 reforestation species. Philippine Forest
 Research Journal 9(3-4):197-210.

Language : English
Key Words : reforestation, drought
 tolerance, soil moisture

Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Gmelina arborea*,
Acacia auriculiformis,
Albizia falcataria
Sites : College, Laguna,
 Philippines
Year Started : 1983
Year Completed : 1984
Notes : The study was conducted

to determine the survival performance of five
 reforestation species when exposed to
 drought conditions. Results showed that
 yemane (*Gmelina arborea* Linn. Roxb.) and
Acacia auriculiformis Cunn. performed
 better than mahogany (*Swietenia macrophyl*
 King.), narra (*Pterocarpus indicus* Willd.)
 and Moluccan sau (*Albizia falcataria* L.
 Back). Narra, however, performed slightly
 better than Moluccan sau but not better than
 mahogany. The observed differences of
 performance among species under moisture
 stress is believed to be due to differences
 in the physical and structural features of the
 species.

68.
Dulsalam

1987. Catatan singkat tentang *Acacia*
mangium Willd. Sylva Tropica, Vol. II, No. 2.

Language : Indonesian
Key Words : distribution, mechanical
 properties
Executing Agency : FPRI

Funding Agency : FPRI
Status : CP
Species : *Acacia mangium*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : FPRI - Forest Product
 Research Institute, Indonesia Land
 Rehabilitation

69.

Godoy, Esmeralda B.

1987. Provenance trial of three species of
 Acacia under Rosario, La Union condition.
 Undergraduate Thesis. DMMMSU-CAF,
 Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Acacia mangium,
Acacia pera
Sites : DMMMSU-CAF,
 Alipang, Rosario, La
 Union, Philippines

Year Started : 1986
Year Completed : 1987
Notes : This study aimed to
 determine the growth performance of 3
 species of Acacia under Rosario, La Union
 condition. The treatments used were
 replicated 3 times with ten seedlings per
 treatment and laid out following the
 randomized complete block design (RCBD).
 Results of the study showed significant
 difference on the average initial height of
 seedlings at 30, 60, 90 and 120 days after
 outplanting. However, there is significant
 difference on the average diameter of
 seedlings 120 days after outplanting. It is
 further revealed that there is no significant
 difference on the monthly diameter
 increment, monthly height increment and
 percentage survival of seedlings from
 outplanting up to 120 days.

70.

Halena, C.

1988. Performance of *Acacia mangium*
 Willd. and *Leucaena leucocephala* Lam de
 Wit at Niah Forest Reserve, Sarawak.
 Nitrogen-Fixing Tree Research Reports
 No.6.

Language : English
Key Words : species trial, site
 rehabilitation, erosion
 control, biomass

Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*,
Leucaena leucocephala
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : -
Notes : -

71.

Hamid, Abang Abdul

1982. Insect pests of plantation species in
 Sarawak. Proceeding of the Eighth
 Malaysian Forestry Conference. Sabah,
 Malaysia.

Language : English
Key Words : defoliators, Helopeltis,
 Penticodes
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*,
Eucalyptus deglupta
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : 1982
Notes : -

72.

Hamzah, Mohd. Basri and Zaleha Christine
Alang

Seedlings. Seminar on Tissue Culture of
 Forest Species, 14-18 June, 1987. Serdang,
 Malaysia.

Language : English
Key Words : -
Executing Agency : UPM

Funding Agency : UPM
Status : CP
Species : *Acacia mangium*
Sites : Serdang, Malaysia
Year Started : 1986
Year Completed : -
Notes : -

73.

Hardjanti, Irni, Wiratmoko Sukotjo, Yahya Fakuara and Dayanto Indro Utomo

1986. Penentuan saat penghitungan kecambah normal dan kriteria efektif secara kuantitatif untuk jenis *Acacia mangium* Willd. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : normal seedling
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

74..

Harun, A. H.

1984. The role of forest plantation in the long term national timber production strategies in Peninsular Malaysia. Seminar on Development of Forest Plantation in Malaysia. Sabah, Malaysia, 9-14 July 1984. Sabah.

Language : -
Key Words : forest plantation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*,
Gmelina arborea
Sites : Malaysia
Year Started : -
Year Completed : 1984
Notes : -

75.

Hasanbahri, Soewarno

1984. Kompetisi pada pertumbuhan anakan tanaman *Leucaena leucocephala* (Lam.) de Wit *Acacia mangium* Willd. Silviculture Notes, No. 11-IX.

Language : Indonesian
Key Words : competition
Executing Agency : FFUGM
Funding Agency : FFUGM
Status : CP
Species : *Leucaena leucocephala*,
Acacia mangium
Sites : -
Year Started : 1984
Year Completed : 1984
Notes : -

76.

Hawkins, Thomas

1987. Biomass and volume tables for *Eucalyptus camaldulensis*, *Dalbergia sissoo*, *Acacia auriculiformis* and *Cassia siamea* in the Central Bhabar-Terai of Nepal. O.F.I. Occasional Paper No. 33.

Language : English
Key Words : biomass, volume tables
Executing Agency : DFK
Funding Agency : DFK
Status : CP
Species : *Eucalyptus camaldulensis*,
Dalbergia sissoo, *Acacia auriculiformis*, *Cassia siamea*
Sites : NEP
Year Started : 1986
Year Completed : 1986
Notes : -

77.

Hendronomo

1988. Meningkatkan pertumbuhan dan mutu bibit *Acacia mangium* dengan menggunakan berbagai macam media. Bul. Pen Hutan 502:17-26.

Language : Indonesian

Key Words : type of medium, growth and quality
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Acacia mangium*
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

78.

Hoekstra, D. A.

1984. An ex-ante economic analysis of proposed mixed and zonal agroforestry systems for the Batu Arang Forest Reserve, Malaysia.

Language : English
Key Words : agroforestry, silvipasture, economic evaluation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Albizia falcataria*, *Acacia mangium*, *Gmelina arborea*, *Erythrina poeppigiana*
Sites : Batu Arang, Malaysia
Year Started : -
Year Completed : -
Notes : -

79.

Hu, T. W., W. E. Cheng and T. A. Shen

1983. Growth of the seedlings of four leguminous tree species in relation to soil pit in a pot test. Nitrogen Fixing Tree Research Reports No. 1.

Language : English
Key Words : tolerance testing, acidity tolerance, growth
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia auriculiformis*, *Calliandra calothyrsus*,

Sites : *Leucaena leucocephala*
Year Started : -
Year Completed : -
Notes : -

80.

Hutacharoen, Chaweewan

1983. The third seminar on silviculture for rural communities. Faculty of Forestry, Kasetsart University, Bangkok, Thailand. 26-1-19.

Language : Thai
Key Words : fungi, insect, plantation
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Casuarina equisetifolia*, *C. junghuhniana*
Sites : Thailand
Year Started : 1983
Year Completed : 1983
Notes : -

81.

Indrawati, Wahjoe, Edje Djamburi, Nuh Aisyah Mahdi and Haryono Arisman

1985. Percobaan provenansi *Acacia mangium* Willd. di Subanjeriji, Prabumulih, Sumatera Selatan. B.Sc. Thesis (Faculty of Forestry IPB).

Language : Indonesian
Key Words : provenance trials
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1984
Year Completed : 1985
Notes : -

82.

Irwanto, Imam, Syaflil Manan and Dayanto Indro Utomo

1988. Penggunaan sinar x dalam uji cepat viabilitas benih *Acacia mangium* Willd. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : viability, x-rays
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1988
 Year Completed : 1988
 Notes : -

83.

Islam, M. Sirajul

Studies on the growth performance of some fast growing species in Chittagong University hills and their effects on soil.

Language : -
 Key Words : -
 Executing Agency : BDCU
 Funding Agency : Author
 Status : CU
 Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis, *Albizia lebbek*, *Pinus* spp.
 Sites : Chittagong University
 Campus, Bangladesh
 Year Started : 1987
 Year Completed : 1989
 Notes : -

84.

Islam, Q. N., Z. Uddin, M. Tarafder and S. A. Islam

Fuelwood plantation research of some indigenous and exotic species.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*,
A. nilotica, *Dalbergia sissoo*, *Eucalyptus*

camaldulensis, *Leucaena leucocephala*

Sites : Chittagong, Sylhet,
 Tangail and Dinajpur,
 Bangladesh
 Year Started : 1986
 Year Completed : -
 Notes : -

85.

Jaffrin, L. and M. T. Low

1986. *Acacia mangium* provenance trial in Sabah. Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia, 13-20 October 1986, 21pp.

Language : English
 Key Words : -
 Executing Agency : FDSer
 Funding Agency : FDSer
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1986
 Notes : -

86.

Jalong, Phillip Ngan

1986. Agroforestry in Sarawak. Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : English
 Key Words : -
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*,
Gliricidia sepium,
Leucaena leucocephala
 Sites : Sarawak, Malaysia
 Year Started : 1985
 Year Completed : -
 Notes : -

87.

Jiraungkornkul, Arunee

1982. Natural resistance of wood to brown rot fungi. Proceedings of the Forestry Conference. Royal Forest Department, Forest Product Section 12-21.

Language : Thai
 Key Words : durability, fungi
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina junghuhniana*,
Acacia auriculiformis
 Sites : Thailand
 Year Started : 1983
 Year Completed : 1983
 Notes : Calocera fungi attacked the wood studied resulting in increased moisture content and decreased wood weight.

88.

Jiraungkornkul, Arunee

1986. Comparative study of wood destruction by the *Gloeophyllum* fungi. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section 2:297-306.

Language : Thai
 Key Words : fungi, destroy
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina junghuhniana*,
Acacia auriculiformis
 Sites : Thailand
 Year Started : 1986
 Year Completed : 1986
 Notes : *A. auriculiformis* was highly tolerant to *Gloeophyllum sepiarium* and *G. striatum*, while *C. junghuhniana* was not tolerant to *G. sepiarium* but moderately tolerant to *G. striatum*.

89.

Johari, Baharuddin

1987. An appraisal of the compensatory plantation programme in Peninsular Malaysia. Proceeding of Seminar on The Future Role of Forest Plantations in the National Economy and Incentives Required

to Encourage Investment in Forest Plantation Development. Sabah, Malaysia, 1987.

Language : -
 Key Words : compensatory plantation
 Executing Agency : FDM
 Funding Agency : FDM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea
 Sites : Malaysia
 Year Started : -
 Year Completed : 1987
 Notes : -

90.

Johari, Baharuddin and T. Y. Chin

1986. Review of plantation experiences in Peninsular Malaysia. Proceedings of the Ninth Malaysian Forestry Conference. Sarawak, Malaysia.

Language : -
 Key Words : silviculture, plantation management, compensatory plantation
 Executing Agency : FDM
 Funding Agency : FDM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

91.

Jones, N. and H. Jacob

1982. Seed supplies and genetic improvement: four fast-growing hardwoods for Sabah plantations in the eighties. Proceedings of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : English
 Key Words : silviculture, tree improvement, seed supply
 Executing Agency : FDS

Funding Agency : FDS
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Gmelina arborea
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

92.

Kader, Razali Abdul and Kuo Hai Sui

1989. Properties of particleboards manufactured from fast-growing plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
Key Words : thinning wood,
synthetic resin adhesive
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*,
Gmelina arborea,
Paraserianthes falcataria,
Araucaria hunstenii
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

93.

Kar, N. K. and M. Z. Abedin

Performance of different MPTS on the crop field boundaries of Barind Area.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Sesbania sesban*,
Leucaena leucocephala,
Acacia nilotica,
Eucalyptus camaldulensis,

Dalbergia sissoo,
Acacia auriculiformis,
Albizia falcataria
Sites : F.S.R. site, Saroil,
Barind, Rajshahi,
Bangladesh

Year Started : 1989
Year Completed : -
Notes : -

94.

Karim, Md. Rezaul

Crop performance under various spatial arrangements of trees in the High Ganges Flood Plain.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Acacia nilotica*,
Eucalyptus camaldulensis,
Leucaena leucocephala
Sites : A.R.S., Pubna,
Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

95.

Kasemsiri, Watcharachai, Wiset Rungsa-art and Somchart Mattuchart

Experiment on some tree species in dwarfish dry dipterocarp species forest.

Language : Thai
Key Words : dry dipterocarp forest,
growth
Executing Agency : RFD
Funding Agency : -
Status : CU
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Cassia siamea
Sites : Amphoe Dok Kham Tai,
Changwat Phayao,
Thailand (500-800m)
Year Started : 1984
Year Completed : 1988

Notes : The best suitable growth for dwarfish dry dipterocarp forest was *A. auriculiformis*, followed by *E. camaldulensis* and *C. siamea*.

96.

Kerdawang, Joseph Jawa

1986. Status of the reforestation programme in Sarawak. Malay. For. Conf., October 1986. Kuching, Sarawak.

Language : English
 Key Words : progress, problems, future plans
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*,
Araucaria cunninghamii,
Durio zibethinus,
Gmelina arborea,
Shorea macrophylla,
Swietenia macrophylla
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

97.

Khemkhaeng, Charat, Kittipot
Som-arayapong and Witsanu Wongput

1984. Apisilviculture-bee keeping in forest plantation theory and practice. Proceedings of the Forestry Conference. Royal Forest Department, 1:11-25.

Language : Thai
 Key Words : Apisilviculture
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Eucalyptus camaldulensis,
Acacia auriculiformis
 Sites : Amphoe Wang Thong,
 Changwat Phitsanulok
 (400m)
 Year Started : 1984
 Year Completed : 1984
 Notes : -

98.

Khemkhaeng, Charat, Kittipot
Som-arayapong and Witsanu Wongput

1984. Multi-purpose agri-silviculture. Proceedings of the Forestry Conference. Royal Forest Department. 1:26-32.

Language : Thai
 Key Words : agroforestry, growth
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Azadirachta indica*,
Acacia auriculiformis,
Eucalyptus camaldulensis,
Leucaena leucocephala
 Sites : Amphoe Wang Thong,
 Changwat Phitsanulok,
 Thailand (420m)
 Year Started : 1982
 Year Completed : 1988
 Notes : *T. grandis* planted in spacing of 8 x 8m was treated as a principal species mixed with other forest trees planted in spacing of 2 x 4m aiming to induce natural pruning of teak.

99.

Khoo, Kean Choon, Mohd. Noor, Mohd. Yusoff and Lee Tack Wan

1989. Some compensatory forest plantation species for paper pulping. Regional Symposium on Recent Developments in the Tree Plantation of Humid/Subhumid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
Paraserianthes falcataria,
Gmelina arborea
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

100.
Kietvuttinon, Bopit, Pitaya Petmark,
Pongsak Sahunalu

1984. Effect of stand density on biological yield in *Acacia auriculiformis* Cunn. Plantation. Proceedings of the Forestry Conference, Royal Forest Department, 3:576-589.

Language : Thai
Key Words : biomass, density, fire-wood production
Executing Agency : RFD/KUFF
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*
Sites : Amphoe Kanthararom
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1979
Year Completed : 1984
Notes : Above ground biomass per tree decreased with increasing stand density, but total biomass per hectare increased with increasing stand density.

101.
Kinajit, Rudy and Sim Boon Liang

1989. Site and species selection in Sabah Forest Industries Sd. Bhd. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : site survey, species-site matching
Executing Agency : SFI
Funding Agency : SFI
Status : CP
Species : *Acacia mangium*, *A. auriculiformis*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

102.
Kosakun, Tuanjai and Kittit Popattama

1986. Tissue culture of *Acacia mangium* Willd. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section, 57-71.

Language : Thai
Key Words : tissue culture
Executing Agency : CUFF
Funding Agency : -
Status : CP
Species : *Acacia mangium*
Sites : Thailand
Year Started : 1986
Year Completed : 1986
Notes : The optimal parameters for tissue culture of *A. mangium* were 3-6 months old planting materials, leaf and MSC or MSC-1.7 formula. MSC was the formula that caused callus formation.

103.
Lai, K. K. and H. S. Lee

1976. The potential of agroforestry in Sarawak and its socio-economic implications. Sixth Malaysian Forestry Conference, Sarawak, Malaysia.

Language : English
Key Words : agroforestry, shifting cultivation
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia auriculiformis*,
Anthocephalus chinensis,
Shorea macrophylla, *S. hemsleyana*
Sites : Sarawak, Malaysia
Year Started : 1976
Year Completed : -
Notes : -

104.
Laksana, Berbudi Bawa, Edje Djambhuri and Andry Indrawan

1984. Pengaruh allelopathy pada *Acacia mangium* Willd. terhadap tanaman jagung (*Zea mays* L.) B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : allelopathy
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

105.

Lapongan, J. and M. T. Low

1986. *Acacia mangium* provenance trials in Sabah. Proceedings of the Ninth Malaysian Forestry Conference. Sarawak, Malaysia.

Language : -
 Key Words : silviculture, provenance trials, growth
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*
 Sites : Kuching, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

106.

Lapongan, Jaffrin and Min Teck Low

1986. *Acacia mangium* provenance trial in Sabah. Malay. For. Conf., October 1986. Kuching, Sarawak.

Language : English
 Key Words : height, diameter, vigor
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : 1980
 Year Completed : -
 Notes : -

107.

Lee, S. S.

1985. Tree diseases and wood deterioration problems in Peninsular Malaysia. Faculty of Forestry, UPM, Occasional Paper No. 5, 15pp.

Language : -
 Key Words : -
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1985
 Notes : -

108.

Lee, S. S., S. Y. Teng, M. T. Lim and Razali Abd. Kader

1988. Discolouration and heart-rot of *Acacia mangium* Willd: some preliminary results. Journal of Tropical Science 1(2).

Language : -
 Key Words : discoloration, heart-rot, cull indicators, fungi
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

109.

Lee, Su See and L. K. Goh

1989. Seedling diseases of *Acacia mangium* and *Gmelina arborea* in a forest nursery. Regional Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : *Colletotrichum gloeosporioides*, leaf spots, dieback, anthracnose
 Executing Agency : UPM
 Funding Agency : UPM

Status : CP
 Species : *Acacia mangium*,
Gmelina arborea
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

110.

Lim, M. T.

1985. Biomass and biomass relationship of 3.5-year-old open-grown *Acacia mangium*. Faculty of Forestry, UPM. Occasional Paper No.5. 15pp.

Language : English
 Key Words : biomass, biomass relationship

Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,

Albizia falcataria,
Hevea brasiliensis
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

111.

Lim, M. T.

1986. Biomass and productivity of 4.5-year-old *Acacia mangium* in Sarawak. *Pertanika* 9(1):81-87.

Language : English
 Key Words : biomass, productivity, biomass relationships

Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,

Eucalyptus nitens
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

112.

Lim, M. T.

1988. Studies on *Acacia mangium* in Kemasul Forest, Malaysia. I. Biomass and Productivity. *Journal of Tropical Ecology* 4:293-302.

Language : English
 Key Words : biomass components, litter accumulation, increment

Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Peninsular Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

113.

Lim, M. T. and M. H. Basri

1985. Biomass accumulation in a naturally regenerating lowland secondary forest and an *Acacia mangium* stand in Sarawak. *Pertanika* 8(2):237-242.

Language : English
 Key Words : biomass accumulation
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

114.

Lim, Meng Tsai

1985. Biomass and biomass relationship of 3.5-year-old open-grown *Acacia mangium*. Faculty of Forestry, Universiti Pertanian Malaysia. Occasional Paper No. 2, 13pp.

Language : English
 Key Words : -
 Executing Agency : UPM
 Funding Agency : UPM

Status : CP
 Species : *Acacia mangium*
 Sites : Malaysia
 Year Started : -
 Year Completed : 1985
 Notes : -

115.

Lim, Meng Tsai

1986. Biomass and productivity of 4.5-year-old *Acacia mangium* in Sarawak. *Pertanika* 9:81-87.

Language : English
 Key Words : biomass
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : 1986
 Notes : -

116.

Lim, Meng Tsai

1988. Studies on *Acacia mangium* in Kemasul forest. I. biomass and productivity.

Language : English
 Key Words : biomass, productivity
 Executing Agency : UPM
 Funding Agency : UPM
 Status : OR
 Species : *Acacia mangium*
 Sites : Kemasul, Malaysia
 Year Started : 1987
 Year Completed : -
 Notes : -

117.

Lim, Meng Tsai

1989. Modelling the growth of *Acacia mangium*. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
 Key Words : reforestation, afforestation, the performance prediction

Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

118.

Logan, A. F. and V. Balodis

1982. Pulping and papermaking characteristics of plantation grown *Acacia mangium* from Sabah. *Malaysian Forestry* 45(2):217-236.

Language : English
 Key Words : pulp yield, sulphate pulp, nssc pulp, delignification

Executing Agency : -
 Funding Agency : -
 Status : -
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

119.

Logan, A. F. and V. Balodis

1982. Pulping and papermaking characteristics of plantation-grown *Acacia mangium* from Sabah. *Malay. For.* 45:217-236.

Language : English
 Key Words : plantation grown
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1982
 Notes : -

120.
Low, M. T.

1983. *Acacia mangium* height growth variation on a soil catena in the Ulu Kukut Forest Reserve. Laporan Penyelidik Hutan, Sabah 1981-82.

Language : English
Key Words : -
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : 1980
Year Completed : -
Notes : -

121.
Luangjame, Jesada and Ladda Bunbhakdee

1984. Salt tolerance of selected tree species. Proceedings of the Forestry Conference, Royal Forest Department, 2:55-58.

Language : Thai
Key Words : salt tolerance
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*, *Azadirachta indica*
Sites : Amphoe Muang, Changwat Khon Kaen, Thailand (174m)
Year Started : 1984
Year Completed : 1984
Notes : This greenhouse study revealed that *E. camaldulensis* was ranked the top in salt tolerance, but NaCl concentration should not be greater than 2.0%.

122.
Machsar, Rusmana, Dudung Darusman and Junus Kartasubrata

1989. Studi sosial ekonomi penggarap dan

bukan penggarap tumpangsari pada tanaman *Acacia mangium* Willd. di Desa Cikawung, Kabupaten Indramayu, Jawa Barat. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : socio-economic study
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1989
Year Completed : 1989
Notes : -

123.
Mahdiani, Andry Indrawan and Edje Djambhuri

1984. Studi allelopathy dari *Acacia auriculiformis* A. Cunn dan *Dischidia rafflesiana* Wall. Terhadap Anakan Jati (*Tectona grandis* L.F.). B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : allelopathy
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia auriculiformis*
Sites : -
Year Started : 1984
Year Completed : 1984
Notes : -

124.
Majid, Nik Muhamad B.

1987. The use of *Acacia mangium* and other multi-purpose tree species in the rehabilitation of tin mining areas - a proposal. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : tin mining
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*

Sites : Serdang, Malaysia
 Year Started : 1987
 Year Completed : 1989
 Notes : -

125.

Mamit, James

1985. Specific gravity of two reforestation species in Sarawak. Malay. For. 49:72-78.

Language : English
 Key Words : reforestation, specific gravity
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia auriculiformis*,
Paraserianthes falcataria
 Sites : Sarawak, Malaysia
 Year Started : 1985
 Year Completed : -
 Notes : -

126.

Mansyur, Hs., Yahya Fakuara and Soedarmadi

1989. Pengaruh media serbuk gergaji dengan pemberian kotoran ayam terhadap pertumbuhan semai *Acacia mangium* Willd. dan *Albizia falcataria*. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : growth medium and fertilization
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*,
Albizia falcataria
 Sites : -
 Year Started : 1989
 Year Completed : 1989
 Notes : -

127.

Narawayan, G., Bedyaman Tambunan and Suwardi Sumadiwangsa

1987. Pengaruh derajat keasaman perekat ekstrak kulit kayu *Acacia auriculiformis* A. Cunn terhadap Keteguhan Rekat Kayu Lapis. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : bark extract, internal bound of plywood
 Executing Agency : FF
 Funding Agency : -
 Status : CU
 Species : *Acacia auriculiformis*
 Sites : -
 Year Started : 1987
 Year Completed : 1987
 Notes : -

128.

Mariano, Analyn

1985. Effects of varying water temperature on the germination and survival of mangium (*Acacia mangium* Willd.) Undergraduate Thesis. DMMMSU-CAF, Rosario, La Union, Philippines.

Language : English
 Key Words : -
 Executing Agency : DMMMSU-CAF
 Funding Agency : -
 Status : CP
 Species : *Acacia mangium*
 Sites : Forest Nursery,
 DMMMSU-CAF,
 Alipang, Rosario, La
 Union, Philippines
 Year Started : 1984
 Year Completed : 1985
 Notes : This study aimed to determine the effects of varying water temperature on the germination and growth of mangium, and to compare the treatments used. 25 degree C tap water (To), 40 degree C (T1), 60 degree C (T2), 80 degree C (T3), and 10 degree C (T4). Polyethylene plastic bags were used as potting media with 15 samples plants per treatment replicated from four times, laid out using the Randomized Complete Block Design (RCBD). Results of the study revealed highly significant differences among the treatment means on the average number of days from sowing

germination, percentage germination of seeds 30 days after sowing, and on the average height diameter at 30, 60 and 90 days after sowing.

129.

Miah, Md. Forkan and Khan Md. Touhid Osman

Biomass production of three tree species planted in Chittagong University Campus.

Language : English
 Key Words : -
 Executing Agency : DBCU
 Funding Agency : DBCU
 Status : OR
 Species : *Acacia auriculiformis*,
Dipterocarpus turbinatus, *Pinus* spp.
 Sites : Chittagong University
 Campus, Chittagong
 Bangladesh
 Year Started : 1989
 Year Completed : 1990
 Notes : -

130.

Millat-E-Mustafa, Md., Khan Md. Touhid Osman and Md. Sirajul Hoq

Growth performance of *Acacia auriculiformis* in the denuded hills of Chittagong University Campus.

Language : English
 Key Words : -
 Executing Agency : IFCU
 Funding Agency : Self-fund
 Status : OR
 Species : *Acacia auriculiformis*
 Sites : Chittagong University
 Campus, Chittagong,
 Bangladesh
 Year Started : 1989
 Year Completed : 1990
 Notes : -

131.

Miller, R. R. and A. J. Hepburn

1989. A review of the growth of *Acacia mangium* at the Bengkoka Afforestation and Settlement Project, North Sabah. Regional Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Malaysia, 1989.

Language : -
 Key Words : fertilizer response,
 provenance selection,
 degraded wasteland
 Executing Agency : SAFODA
 Funding Agency : SAFODA
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

132.

Mohamad, Anuar

1987. Growth of *Acacia* on logged over forest in Sabah. ACIAR Proceedings of Seminar on Plantation Forestry. Gympie, Queensland, Australia.

Language : -
 Key Words : growth, logged
 over forest
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1987
 Notes : -

133.

Mohamad, Anuar

1987. Growth of *Acacias* on a logged-over forest in Sabah. Proceedings of International Workshop. Forestry Training Centre, Gympie, Australia.

Language : English
 Key Words : silviculture, height
 growth, diameter growth,
 multiple leadering

Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Acacia mangium*,
A. auriculiformis,
A. cincinnata
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

134.

Mohammad, Adnan

1986. MPTS: an urban forestry perspective.
 Proc. National MPTS. Kepong, Malaysia.

Language : -
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia auriculiformis*,
Gliricidia sp.,
Casuarina sp.,
Leucaena sp.
 Sites : Kepong, Malaysia
 Year Started : 1986
 Year Completed : -
 Notes : -

135.

Momin, M. A. and Team

Growing of summer vegetables of creeping
 type by utilizing forest species around the
 homestead.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Acacia auriculiformis*
 Sites : Kalikapur F.S.R. site,
 Ishurdi, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

136.

Mudin, Imam

1986. Pengamatan jenis serangga perusak
 serta derajat kerusakan yang ditimbulkannya
 pada tegakan *Acacia mangium* Umur 1, 2, 3
 dan 4 tahun. B.Sc. Thesis, Faculty of
 Forestry, IPB.

Language : Indonesian
 Key Words : types of destructive
 insects, degree of
 damage

Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

137.

Nandy, P.

Development of nursery techniques of some
 exotic and indigenous forest tree species.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*,
Albizia procera,
Artocarpus chaplasha
 and *A. integrifolia*
 Sites : BFRI Nursery,
 Chittagong, Bangladesh
 Year Started : 1989
 Year Completed : 1991
 Notes : -

138.

Nghah, Mohamad Lokmal B. HJ.

1987. Selection of fuelwood crops. First
 National MPTS Seminar. FRIM, Kepong,
 14-15 December 1987, 15pp.

Language : English
 Key Words : fuelwood plantation,

selection criteria
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*,
A. auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia
Sites : Kepong, Malaysia
Year Started : -
Year Completed : -
Notes : -

139.

Ngah, Mohamad Lokmal B. HJ.

1987. Selection of fuelwood crops. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : selection as well as the criteria to establish fuelwood
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*,
A. auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia
Sites : Kepong, Malaysia
Year Started : 1987
Year Completed : -
Notes : -

140.

Ngah, Mohd. Lokmal HJ., Ab. Rasip Ab. Ghani

1989. The multi-purpose tree species (MPTS) project at Mata Ayer Forest Reserve, Perlis. Regular Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia, UPM, Malaysia, 1989.

Language : -
Key Words : survival rates, species performance
Executing Agency : FRIM
Funding Agency : F/FRED
Status : CU

Species : *Acacia mangium*,
A. auriculiformis,
Leucaena diversifolia
Sites : Perlis, Malaysia
Year Started : 1988
Year Completed : -
Notes : -

141.

Nuruddin, Ahmad Ainuddin and Ab. Wahab Deraman

1989. Environmental characteristics of 1 1/3-year-old *Acacia mangium* stand. Regional Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : solar radiation, air temperature, soil temperature, relative humidity, wind speed
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*
Sites : Rantau Panjang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

142.

Pattaprapapan, Somsak

1980. Plywood Properties of *Acacia auriculiformis*. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section. 60-65.

Language : Thai
Key Words : plywood, veneer, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*
Sites : Thailand
Year Started : 1980
Year Completed : 1980
Notes : It was found that wood

properties of *A. auriculiformis* were suitable for small plywood manufacturing of furniture, matches and toothpicks.

143.

Paudyal, Bimal, Nik Mohamad Majid and Rusli Mohd.

1989. Thinning guidelines and pruning operations in *Acacia mangium* plantation in Peninsular Malaysia. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : optimal age for thinning, diameter growth, tapering, growth parameters
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CU
 Species : *Acacia mangium*
 Sites : Kemasul, Malaysia and Rantau Panjang, Malaysia
 Year Started : 1988
 Year Completed : -
 Notes : -

144.

Peh, T. B. and K. C. Khoo

1984. Timber properties of *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria* and their utilization aspects. The Malaysian Forester, Vol. 47, No. 4:285-303.

Language : English
 Key Words : timber properties and utilization
 Executing Agency : FRK, FRIM
 Funding Agency : FRK, FRIM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria*
 Sites : Malaysia
 Year Started : 1983
 Year Completed : 1983
 Notes : -

145.

Peh, T. B., K. C. Khoo and T. W. Lee

1982. Sulphate pulping of *Acacia mangium* and *Cleistopholis glauca* from Sabah. Malaysian Forestry 45(3).

Language : English
 Key Words : forest product, sulphate pulping, chemical composition, paper strength properties
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*, *Cleistopholis glauca*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

146.

Petch, B. and H. Kong

1985. Detailed site evaluation of a reforestation site in sawai protected forest. Soil Research Report. Forest Department, Sarawak, Malaysia. SS13.

Language : English
 Key Words : site factor, site evaluation, site-species matching
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*, *Shorea macrophylla*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

147.

Petmark, Pitaya and Bopit Kietvuttinon

1984. The roles of agroforestry system on forest and rural development. Proceedings of the Forestry Conference, Royal Forest Department, 1:65-101.

Language : Thai

Key Words : agroforestry, firewood production, construction timber, economic

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*

Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)

Year Started : 1978

Year Completed : 1984

Notes : Agroforestry system was carried out in order to evaluate growths and yields of various crop combinations planted at 4*4m spacing.

148.
Petmark, Pitaya and Somboon Bunyuen

1989. Proceedings of the Forestry Research. Royal Forest Department. Silvicultural Section 2:217-223.

Language : Thai

Key Words : soil properties, yield crops

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*

Sites : King Amphoe Nam Kliang, Changwat Si Sa Ket, Thailand (130m)

Year Started : 1985

Year Completed : 1988

Notes : -

149.
Petmark, Pitaya, Bopit Kietvuttinon and Boonchoob Boontawee

1987. Some ecological impact of planting Eucalyptus in agricultural area. Thai Journal of Forestry 6(3)362-374.

Language : Thai

Key Words : ecology, agroforestry,

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*

Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)

Year Started : 1987

Year Completed : 1987

Notes : *E. camaldulensis* showed no harmful effect on the site and crop yields compared to acacia at 4-yr-old due to its nutrients uptake. But eucalyptus decreased at 8-yr-old due to a higher rate of nutrient of soil. Acacia gave 48.38% and Eucalyptus 32%.

150.
Petmark, Pitaya, Bopit Kietvuttinon and Boonchoob Boontawee

1989. Some ecological impacts of planting Eucalyptus in agricultural area. Proceedings of the Forestry Conference. Royal Forest Department, Silvicultural Section 1:1-16.

Language : Thai

Key Words : ecology, agricultural area

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*

Sites : King Amphoe Nam Kliang, Changwat Si Sa Ket (130m)

Year Started : 1987

Year Completed : 1987

Notes : *E. camaldulensis* gave no harmful effects on the site and crop yields compared to *A. auriculiformis* during the 4 year rotation. Crop yields gained from the Eucalyptus plot were higher than the Acacia plot.

151.
Phang, C.

1985. Mulching and C/N ratio with respect to common plant residues at Oya Read Plantation, Sibul, Sarawak. Forest Soil Technical Note No. 3/85. Forest Department, Sarawak, Malaysia.

Language : English
 Key Words : silviculture, nurseries surface mulching, suitability of organic residue, C/N ratio
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Pteridium aquilinum*, *Dicranopteris linearis*, *Lycopodium ceranum*, *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

152.

Pinyopusarurk, Kongsak

1986. Silvicultural Research Bulletin. Royal Forest Department. 2:487-500.

Language : Thai
 Key Words : breeding
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Thailand
 Year Started : -
 Year Completed : -
 Notes : -

153.

Pongpanit, Krutsana, Aniwat Chaloepong and Theerawat Buntaweekul

1988. Seedling disease in Sakaerat nursery. Proceedings of the Forestry conference. Royal Forest Department. 2.

Language : Thai
 Key Words : fungi, seedling
 Executing Agency : RFD
 Funding Agency : -

Status : CP
 Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Melia azedarach*, *C. siamea*
 Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (300m)
 Year Started : 1985
 Year Completed : 1985
 Notes : -

154.

Prajit, Prasert

1983. Preliminary study on growth of *Eucalyptus camaldulensis* Dehnh. and *Acacia auriculiformis* A. Cunn. planted with agricultural crops at Dankunthod Nakornratchasima. Master of Science in Forestry Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai
 Key Words : agroforestry, growth, biomass, soil properties, nutrient concentration
 Executing Agency : -
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*
 Sites : Amphoe Dan Khun Thot, Changwat Nakhon Ratchasima, Thailand (300m)
 Year Started : 1983
 Year Completed : 1983
 Notes : There were significant differences in growth among forest plant species planted with and without agricultural crops, but there was no difference in biomass.

155.

Pukcharun, Weera and Saman, Ruaisungnoen

1987. Run-off and sediment yields of 5-year-old *Leucaena leucocephala* and *Acacia auriculiformis* plantation. Proceedings of the Forestry Conference, Royal Forest Department, Forest Biology,

Natural and Environmental Conservation, General Forest, Social Forest and Forest Management section 73-79.

Language : Thai
Key Words : 5-year-old, run-off, sediment
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Leucaena leucocephala
Sites : Amphoe Khon San,
Changwat Chaiyaphum,
Thailand (290-700m)
Year Started : 1986
Year Completed : 1987
Notes : The amount of run-off
and sediment yields under *A. auriculiformis*
plantation were greater than those under *L.*
leucocephala plantation because of their
differences in leaf characteristics.

156.

**Purba, Mhd. Soleh, Yusuf Sudohadi and
Ridwan Pasaribu**

1988. Sifat papan semen kimia soda dingin
soda panas dari kayu *Acacia mangium* Willd.
dan *Eucalyptus urophylla* Blake. BSc Thesis,
Faculty of Forestry, IPB

Language : Indonesian
Key Words : pulp cement
board properties
Executing Agency : Faculty of Forestry,
IPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*,
Eucalyptus urophylla
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

157.

Racz, J. and I. Zakaria

1987. Growth of *Acacia mangium* in
Peninsular Malaysia. Proceedings of the
ACIAR International Workshop. Forestry

Training Centre, Gympie, Queensland,
Australia.

Language : English
Key Words : silviculture, stemform,
defects, forking,
branching
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*
Sites : Peninsular Malaysia
Year Started : -
Year Completed : 1987
Notes : -

158.

**Rahardjo, Sriwilarso Budi, Yahya Fakuara
and Salman Parisy**

1986. Studi proses dekomposisi daun *Acacia
mangium* Willd. B.Sc. Thesis, Faculty of
Forestry, IPB.

Language : Indonesian
Key Words : decomposition process
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

159.

**Raja, Ahmad, Yahya Fakuara and Yadi
Setiadi**

1986. Pengaruh inokulasi *Rhizobium* sp.
terhadap pertumbuhan anakan *Acacia
mangium* Willd. B.Sc. Thesis, Faculty of
Forestry, IPB.

Language : Indonesian
Key Words : *Rhizobium* inoculation
Executing Agency : Faculty of Forestry,
Bogor Agricultural
University
Funding Agency : -
Status : CU
Species : *Acacia mangium*

Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

160.

Rativanich, Tasnee, Arnnop Abhijatabutr,
 Montree Promachotikool, Pensri
 Namprasert, Supasri Chensuthiwetchakul
 and Somnuek Ruangpornasawat

1980. Sulfate pulping of *Acacia auriculiformis*
A. Cunn. Proceedings of the Forestry
 Conference. Royal Forest Department.
 Forest Product Section. 138-174.

Language : Thai
 Key Words : pulp, paper
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Amphoe Khlong Luang,
 Changwat Pathum
 Thani, Thailand (30m)

Year Started : 1980
 Year Completed : 1980
 Notes : Tearing strength of
A. auriculiformis pulp gained from 3-4 years
 old was found to be higher than that gained
 from 7 years old. Pulp could be used as
 linerboard. If mixed with long-fiber pulp, it
 could be used as wrapping paper and single
 wall bag.

161.

Rativanich, Tasnee, Benchawan
 Kharuthatpattana and Chujit Anantachok

1981. Destructive distillation of *Acacia*
auriculiformis *A. Cunn. Ex. Benth.*
 Proceedings of the Forestry Conference.
 Royal Forest Department. Forest Product
 Section 163-169.

Language : Thai
 Key Words : distillation, charcoal
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Thailand

Year Started : 1981
 Year Completed : 1981
 Notes : -

162.

Retnowati, Eulis

1988. Beberapa catatan tentang *Acacia*
mangium Willd. Jenis Potential Untuk Hutan
 Industri. Jurnal Penel dan Pengembangan
 Kehutanan, Vol. IV, No. 1, Maret.

Language : Indonesian
 Key Words : timber estate
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1987
 Year Completed : 1988
 Notes : -

163.

Romero, Eflida

1985. Effects of different levels of chicken
 manure on the growth of outplanted Maber
 (*Acacia mangium* Wild.). Undergraduate
 Thesis. DMMMSU-CAF, Rosario, La
 Union, Philippines.

Language : English
 Key Words : -
 Executing Agency : DMMMSU-CAF
 Funding Agency : -
 Status : CP
 Species : *Acacia mangium*
 Sites : Alipang, Rosario, La
 Union, Philippines

Year Started : 1984
 Year Completed : 1985
 Notes : This study sought to
 determine the effects of different levels of
 chicken manure on the growth of outplanted
 Maber seedlings. The different treatments
 used were control (T₀), 100 grams of chicken
 manure per plant (T₁), 150 grams of chicken
 manure per plant (T₃), 250 grams of chicken
 manure per plant (T₄), 300 grams of chicken
 manure per plant (T₅). The average monthly
 height increment and diameter increment

and the percentage survival of seedlings at 90 days were not significantly different among treatment means. Furthermore, seedlings applied with 250 grams per plant (T4) obtained the tallest height and greatest diameter.

164.

Rozalen, Sevina, Zahrial Coto and Surjono Surjokusumo

1987. Pengaruh sifat fisis dan anatomis menurut variasi ketinggian dalam sat.1 pohon terhadap sifat mekanis kayu *Acacia mangium* Willd. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : physical and anatomical properties, mechanical properties
 Executing Agency : Faculty of Forestry, IPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

165.

Ruaisungnoen, Saman, Chalathon Sritulanon and Potchana Woraponpipat

1984. Exchanging in soil element after planting *Acacia auriculiformis* at Watershed Development Center, Ratanaburi, Surin. Proceedings of the Forestry Conference, Royal Forest Department, 3:460-471.

Language : Thai
 Key Words : soil nutrient
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Amphoe Rattanaburi, Changwat Surin, Thailand (174m)
 Year Started : 1978
 Year Completed : 1984
 Notes : *A. auriculiformis* was considered as a soil improving species due to

its ability to increase N, K and Ca concentrations.

166.

Rufelds, C. W.

1987. Quantitative comparison of *Acacia mangium* Willd. versus hybrid *A. auriculiformis*. Forest Research Centre, Sepilok, Sabah. FRC publication No 40.

Language : English
 Key Words : silviculture, tree improvement, hybrid, growth, form
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia mangium*, *A. auriculiformis* hybrid
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

167.

Rufelds, C. W.

1988. *Acacia mangium*, *A. auriculiformis* and hybrid *A. auriculiformis* seedling morphology study. Forest Research Centre, Sepilok, Sabah, Malaysia. FRC Publication No. 41.

Language : English
 Key Words : silviculture, tree improvement, hybrid, seedling morphology
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia mangium*, *A. auriculiformis*, *A. auriculiformis* hybrid
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

168.

Rufelds, C. W. and J. Lapongan

1986. The occurrence of hybrid *Acacia auriculiformis* A. Cunn. ex Benth in Sabah. Proceedings of the Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : -
 Key Words : silviculture, tree improvement, hybrid, occurrence
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

169.

Rusfliandi, Deden Edi, Yusuf Sudohadi and Kayono Purba

1987. Sifat-sifat hardboard dari kayu *Acacia mangium* Willd. *Eucalyptus deglupta* Blume, dan *Eucalyptus urophylla* Blake. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : hardboard properties
 Executing Agency : Faculty of Forestry, IPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*,
Eucalyptus deglupta
Eucalyptus urophylla
 Sites : -
 Year Started : 1987
 Year Completed : 1987
 Notes : -

170.

Saha, S.

Routine purity, moisture content, germination and viability test of all seeds stored in the seed bank.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR

Species : *Acacia auriculiformis*,
A. mangium, *A. nilotica*,
Dalbergia sissoo,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Melia azedarach

Sites : -
 Year Started : 1988
 Year Completed : -
 Notes : -

171.

Saha, S.

1990. Studies on seed dormancy and storage methods for important tree species.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*,
A. mangium,
Albizia procera
 Sites : -
 Year Started : 1990
 Year Completed : 1990
 Notes : -

172.

Sahri, Mohd. Hamami, Razali Abdul Kader and Kee Teck Khoo

1989. Gluing properties of wood of three fast-growing plantation species. Regional Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : gluability of wood,
 phenol-resorcinol
 formaldehyde, urea
 formaldehyde
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea,
Paraserianthes falcataria
 Sites : Serdang, Malaysia

Year Started : -
 Year Completed : 1989
 Notes : -

173.

Sahunalu, Pongsak

1983. The third seminar on silviculture forestry for rural community. Faculty of Forestry, Kasetsart University, Bangkok, Thailand. 28-1-17.

Language : Thai
 Key Words : biomass, plantation
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*,
Acacia auriculiformis,
Leucaena leucocephala
 Sites : Amphoe Somdet,
 Changwat Kalasin,
 Thailand (320m)
 Year Started : 1983
 Year Completed : 1983
 Notes : -

174.

Sahunalu, Pongsak, Choob Khemnak,
 Pricha Dhanmanonda, Monthon
 Jumroenprucks, Wiratana Tanpibal and
 Kanit Muangnil

1988. Experiment studies on the utilization of waste lands for reforestation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
 Key Words : plantation, wasteland
 Executing Agency : KUFF/RFD
 Funding Agency : JICA
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Acacia mangium
 Sites : Amphoe Takua Pa,
 Changwat Phangnga,
 Amphoe Muang,
 Changwat Ratchaburi,
 Amphoe Somdet,
 Changwat Kalasin,
 Thailand (35-320m)

Year Started : 1984
 Year Completed : 1984
 Notes : -

175.

Sahunalu, Pongsak, Wisut Suwannapinunt,
 San Kaitpraneet and Wiratana Tanpibal

1979. Biomass production of 8-year-old *Acacia auriculiformis* stand planted on the tailing tin-mine soil. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 2:151-167.

Language : Thai
 Key Words : biomass, mine soil
 Executing Agency : KUFF
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Amphoe Takua Pa,
 Changwat Phangnga
 (40m)
 Year Started : 1978
 Year Completed : 1979
 Notes : *A. auriculiformis*
 planted on tin-mine tailings at 5 x 5 m
 spacing had satisfactory performance on
 slime area after mining.

176.

Sandhu, S. S. and Gurban Singh

1986. Economics of block plantation of (kikar) *Acacia nilotica* Subsp. Indica (Benth.) on marginal soils of Punjab. Indian Journal of Forestry, Vol. 9 (2), 168-170.

Language : English
 Key Words : economics, marginal
 soils
 Executing Agency : Faridkot Forest Division,
 Muktsar, India
 Funding Agency : FFD
 Status : CP
 Species : *Acacia nilotica* subsp.
indica
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

177.

Sangkul, Sutatip

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section, 60-68.

Language : Thai
 Key Words : fungi
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Thailand
 Year Started : 1980
 Year Completed : 1980
 Notes : -

178.

Sangkul, Sutatip

1982. Study of some wood destruction by white rot. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 22-34.

Language : Thai
 Key Words : bamboos, fungi, damage
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Dendrocalamus strictus*,
Gigantochloa albociliata,
D. giganteus,
Acacia auriculiformis
 Sites : Thailand
 Year Started : 1981
 Year Completed : 1981
 Notes : White rot: *Poria* sp.,
Pycnoporous sanguineus, *Lentinus* sp.

179.

Sangkul, Sutatip

1987. The virulence of wood destroying fungi (basidiomyces) on some hardwood species. Proceedings of the forestry Conference. Royal Forest Department. Forest Product Section 63-74.

Language : Thai
 Key Words : durability, fungi

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis
Casuarina junghuhniana

Sites : Thailand

Year Started : 1987

Year Completed : 1987

Notes : *A. auriculiformis* and
E. camaldulensis were relatively durable to five wood destroying fungi (*Pycnoporous sanguineus*, *Lentinus* spp., *Coriolus* sp., *Daldenia concentrica* and *Trametes lactinae*) in comparison to *C. junghuhniana*

180.

Sani, Hamsawi and Jugah Kadir

1989. An early growth assessment of *Acacia mangium* and *Gmelina arborea* on sub-soil of Nyalau soil series in Bintulu. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : compacted sub-soil
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

181.

Santosa, Erdy

1987. Pengaruh ekstrak alang-alang (*Imperata cylindrica*) terhadap perkecambahan *Pinus merkusii* dan *Acacia auriculiformis*. Buletin Penelitian Hutan 490:1-12.

Language : Indonesian
 Key Words : alang-alang extract
 Executing Agency : FR - Forest Research Station

Funding Agency : FR
Status : CP
Species : *Acacia auriculiformis*,
Pinus merkusii
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

182.
Santoso, Waloejo Boedi

1982. Penyediaan kayu bakar dengan jenis
Acacia auriculiformis A. Cunn. Duta Rimba,
 55, VIII:7-9.

Language : Indonesian
Key Words : firewood supply
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Acacia auriculiformis*
Sites : Indonesia
Year Started : 1981
Year Completed : 1981
Notes : -

183.
Selamat, Khamis B.

1982. Pest and diseases of forest plantation
 trees with special reference to SAFODA.
 Proceedings of the Eighth Malaysian
 Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : forest injuries and
 protection, plantation
 diseases, defoliators,
 rodents, squirrels
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*, *Pinus*
caribaea, *G. arborea*,
Eucalyptus deglupta
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

184.
Sembiring, Serser, Daud Leppe and
Chandra Gurdjita

1986. Penggunaan gambut sebagai media
 sapihan *Acacia mangium* Willd. Wanatrop,
 Vol. I, No. 2:27-36.

Language : Indonesian
Key Words : use of peat as medium
Executing Agency : INHI - Inhutani I and
 FRI - Forest Research
 Institute, Indonesia

Funding Agency : -
Status : CP
Species : *Acacia mangium*
Sites : Indonesia
Year Started : 1981
Year Completed : 1985
Notes : -

185.
Servaraj, P. and B. Mohamad

1980. A checklist of plantation trials in
 Peninsular Malaysia. Research Pamphlet No.
 79. Forest Department Peninsular Malaysia.

Language : English
Key Words : -
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*,
A. auriculiformis
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

186.
Setyawan, Dharma, Ikg Tapa Darma and
Yadi Setiadi

1989. Pengaruh pemupukan dan inokulasi
Clavaria sp. pada pertumbuhan anakan
Acacia mangium Willd. B.Sc. Thesis, Faculty
 of Forestry, IPB.

Language : Indonesian
Key Words : fertilization, *Clavaria*
 sp. inoculation

Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1988
 Year Completed : 1989
 Notes : -

187.

Shariff, Amir Husni B. Mohd.

1982. Soil survey for timber plantations in Malaysia. Proceedings of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : -
 Key Words : soil surveys, survey methods, site-species matching

Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Pinus caribaea*, *Eucalyptus deglupta*, *Gmelina arborea*, *Acacia mangium*

Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

188.

Shariff, Amir Husni B. Mohd.

1983. A report on the soil survey of part of forest reserve, Pahang. Research Pamphlet No. 95.

Language : -
 Key Words : soil survey, site species matching, fast growing species

Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Pinus caribaea*, *Acacia mangium*, *Maesopsis eminii*, *Gmelina arborea*

Sites : Malaysia
 Year Started : -

Year Completed : -
 Notes : -

189.

Sia, P. C.

1986. Response of *Acacia mangium* Willd. to fertilization on red-yellow podsolic soils. Proceedings of the Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : English
 Key Words : silviculture, fertilization, growth response

Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

190.

Siddique, A. B. and A. R. Chowdhury

Fibre studies of pine, giant ipil-ipil and *Acacia auriculiformis*.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CU
 Species : *Pinus caribaea*, *Leucaena leucocephala* and *Acacia auriculiformis*

Sites : -
 Year Started : 1988
 Year Completed : 1989
 Notes : -

191.

Sim, B. L.

1984. The genetic base of *Acacia mangium* Willd. in Sabah. Joint Meeting of IUFRO Working Parties on Provenance and Genetic Improvement Strategies in Tropical Forest Trees, Mutare, Zimbabwe, April 1984.

Language : English
Key Words : genetic base, adaptation,
 genetic degradation
Executing Agency : SS, FDS
Funding Agency : SS, FDS
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : 1983
Year Completed : -
Notes : -

192.

Sim, B. L.

1987. Present research status on hybridization and vegetative propagation of *Acacia mangium* and *A. auriculiformis* in Malaysia. Report of Sabah Softwoods Sdn. Bhd.

Language : English
Key Words : -
Executing Agency : SS
Funding Agency : SS
Status : CP
Species : *Acacia mangium*,
A. auriculiformis
Sites : Sabah, Malaysia
Year Started : 1986
Year Completed : -
Notes : -

193.

Sim, B. L.

1987. Research on *Acacia mangium* in Sabah: A review. Proceedings of ACIAR International Workshop. Forestry Training Centre, Gympie, Queensland, Australia.

Language : English
Key Words : silviculture, plantation
 management, nursery
 techniques, propagation,
 tree improvement,
 controlled hybridization
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*,
A. auriculiformis

Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

194.

Sim, B. L. and E. Gan

1988. Comparative growth of five tropical acacias on four different sites in Sabah. Commonw. For. Rev. 67(2).

Language : English
Key Words : silviculture, provenance
 trial, provenance/
 species-site testing,
 growth, wood tolerance
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia auriculiformis*,
A. crassicarpa,
A. aulacocarpa,
A. mangium,
A. meamsii

Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

195.

Simsiri, Apisit, Boonchoob Boontawee,
 Tinnakorn Wutthiwichan, Ratana
 Thai-ngam and Sumeth Silliluk

1989. Vegetative propagation of *Acacia auriculiformis*. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:31-45.

Language : Thai
Key Words : vegetative propagation
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*
Sites : Amphoe Pak Thong
 Chai, Changwat
 Nakhon, Ratchasima,
 Thailand (520m)
Year Started : 1987
Year Completed : 1988

Notes : Vegetative propagation of *A. auriculiformis* could be done through young shoot cutting. Rooting could be gained as high as 98.6% if SERADIX No. 3 root hormone would be applied.

196.
Simsiri, Sukhon and Boonchoob Boontawee

1988. Effect of media on germinating *Acacia mangium*. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department. 2.

Language : Thai
Key Words : media, germination
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia mangium*
Sites : Malaysia
Year Started : 1986
Year Completed : 1986
Notes : -

197.
Sindusuwarno, D. and Dayanto Indro Utomo

1981. *Acacia mangium* jenis pohon yang belum banyak di kenal.

Language : Indonesian
Key Words : growth characteristics
Executing Agency : Department of Forestry
Funding Agency : DF
Status : CP
Species : *Acacia mangium*
Sites : -
Year Started : 1981
Year Completed : 1981
Notes : -

198.
Singh, Uma

1984. Dry matter production in *Acacia nilotica* seedlings in response to application of tree seed oil cakes as fertilizer. Indian Journal of Forestry, Vol. 7 (3), 238-241.

Language : English
Key Words : tree oil cake, fertilizer
Executing Agency : FRID - Forest Research Institute, Dehra Dun
Funding Agency : -
Status : CP
Species : *Acacia nilotica*
Sites : India
Year Started : 1983
Year Completed : 1983
Notes : -

199.
Siregar, Chairil Anwar and Nurhadi Djaing Sastro

1988. Pertumbuhan awal *Acacia mangium* Willd. di petak Percobaan Tanjung Bintang, Lampung. Bul. Pen. Hutan, 504:1-9.

Language : Indonesian
Key Words : plantation trial, growth
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Acacia mangium*
Sites : Indonesia
Year Started : 1986
Year Completed : 1986
Notes : -

200.
Siriluk, Sumeth, Boonchoob Boontawee, Tinnakorn Wuttiwichan and Sukhon Sumsiri

Seed Production of *Acacia mangium* seed stand at 3 years old. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department 1

Language : Thai
Key Words : 3-year-old, seed
Executing Agency : RFD
Funding Agency : JICA
Status : CP
Species : *Acacia mangium*
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (350m)
Year Started : 1986

Year Completed : 1986
Notes : -

201.
Sodachan, Chompunuch

1988. Relationship between leaf morphology and water consumption of some forest tree seedlings. Master of Science in Forestry. Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : leaf, morphology, water consumption, forest, seedling

Executing Agency : -
Funding Agency : FADV
Status : CP
Species : *E. camaldulensis*,

Sites : Changwat Chiang Mai, Thailand (1,800m)

Year Started : 1983

Year Completed : 1984

Notes : Investigation were transpired water by potted weighing method and other three seedlings of each species at the same age were studied anatomy and morphology of leaves and were recorded leaf area in relation to transpiration.

202.
Sorngai, Anunt, Boonchoob Boontawee and Tinnakorn Wuttliwchan

1988. The production of *Acacia mangium* Willd., *Leucaena leucocephala* Lam de Wit, *Acacia auriculiformis* Cunn. and *Eucalyptus camaldulensis* Dehnh. in the 4-year-old plantation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department. 1.

Language : Thai
Key Words : 4-year-old, biomass, firewood production

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia mangium*,
A. auriculiformis,

Eucalyptus camaldulensis,
Leucaena leucocephala
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (350m)

Year Started : 1983

Year Completed : 1983

Notes : -

203.
Stubsgaard, Finn

1986. Pretreatment of *Acacia* and *Prosopis* seed. Two mechanical methods. Technical Note, No. 27, March.

Language : English
Key Words : seed pretreatment
Executing Agency : DFSC
Funding Agency : DFSC
Status : CP
Species : *Acacia*, *Prosopis*
Sites : DNM
Year Started : 1985
Year Completed : 1985
Notes : DNM - Denmark and DFSC - Danida Forest Seed Centre

204.
Subansenee, Wanida

1979. Productivity of lac on *Acacia auriculiformis*. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 13-15.

Language : Thai
Key Words : productivity,
Laccifer lacca

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*
Sites : Changwat Sukhothai (550m)

Year Started : 1977

Year Completed : 1977

Notes : Optimum ages of *Acacia auriculiformis* sprouting were suitable for lac cultivation.

205

Subansenee, Wanida, Leela Kayikananta
and Piyachart Guagool

1988. Pollen analysis which honey bee collected pollen from plants. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 27-40.

Language : Thai
Key Words : pollen, honey, *Apis mellifera*
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Cassia siamea
Sites : Amphoe Muak Lek,
Changwat Saraburi,
Amphoe Pak Chong,
Changwat Nakkon
Ratchasima, Thailand
(520m)

Year Started : 1988
Year Completed : 1988
Notes : Blossom periods of
E. camaldulensis, *C. siamea* and *L. leucocephala* are year round, while *A. auriculiformis* ranges from June to November for bees.

206.

Sudin, Rahim, L. T. Chew and Shaari
Khozirah

1989. The utilization of Malaysian plantation species for cement-bonded particleboard production. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : wood cement ratio,
carbohydrate content
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*, *Hevea brasiliensis*
Sites : Kepong, Malaysia

Year Started : -
Year Completed : 1989
Notes : -

207.

Suharti, Mieke

1980. Penelitian pendahuluan penyakit karat pada *Acacia auriculiformis* A. Cunn Lap. Lembaga Penel. Hutan No. 347, August.

Language : Indonesian
Key Words : rust disease
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Acacia auriculiformis*
Sites : -
Year Started : 1979
Year Completed : 1979
Notes : -

208.

Suharti, Mieke and Erdy Santoso

1984. Percobaan pengendalian penyakit karat pada Anakan *Acacia auriculiformis* A. Cunn dengan Fungsida Terraclor Super X dan Orthocide 50 WP. Lap. Pusat Penel. dan Pengemb. Hutan, No. 437, Januari.

Language : Indonesian
Key Words : pengendalian penyakit karat
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Acacia auriculiformis*
Sites : -
Year Started : 1981
Year Completed : 1983
Notes : -

209.

Sukendro, Andri, Yahya Fakuara and
Wiratmoko Sukotyo

1986. Pengaruh suhu perendaman dan sitozim terhadap perkecambahan biji *Acacia mangium* Willd. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : immersion temperature, effects of sitozim
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

210.

Sulalman, Rahim

1987. Survival rates of direct seeding and containerized planting of *Acacia mangium*. Proceedings of the ACIAR International Workshop. Forestry Training Centre, Gympie, Queensland, Australia.

Language : English
Key Words : silviculture, plantation management, stand establishment, direct seeding, containerized planting
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

211.

Sutomo

1988. Pengamatan pertumbuhan *A. mangium*, *E. deglupta*, *S. macrophylla* dan *S. walichii* pada berbagai pengolahan tanah. Dept. Kehutanan, Dirjen Reboisasi dan Rehabilitasi lahan, Pebruari.

Language : Indonesian
Key Words : growth rate, soil cultivation
Executing Agency : DJRRL - Directorate of Forestry, Reforestation and Land Rehabilitation
Funding Agency : DJRRL

Status : CP
Species : *Acacia mangium*, *Eucalyptus deglupta*, *S. macrophylla*, *Schima walichii*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

212.

Sutomo

1988. Uji coba penyiangan, pemangkasan dan pembebasan *Acacia mangium*, *Eucalyptus deglupta* dan *Schima walichii* var. bancana. Departemen Kehutanan, Dirjen Kehutanan Reboisasi dan Rehabilitasi Lahan, Oktober.

Language : Indonesian
Key Words : cultivation techniques
Executing Agency : DJRRL
Funding Agency : DJRRL
Status : CP
Species : *Acacia mangium*, *Eucalyptus deglupta*, *S. macrophylla*, *Schima walichii*
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

213.

Suwadji, Siman, Zachrial Coto and Bambang Pranggodo

1987. Prospek kayu *Acacia mangium* Willd. sebagai bahan bangunan konstruksi. BSc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : construction material
Executing Agency : FFIPB
Funding Agency : FRI
Status : CP
Species : *Acacia mangium*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

214.

Syamsuwida, Dida

1986. Pengaruh irradiasi sinar gamma co - 60 terhadap perkecambahan *Acacia mangium* dan *Pinus merkusii*. Bul. Pen. Hutan, 485:1-17.

Language : Indonesian
 Key Words : irradiation effect
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Acacia mangium*,
Pinus merkusii
 Sites : -
 Year Started : 1985
 Year Completed : 1985
 Notes : -

215.

Talon, Perlita N.

1986. Performance of outplanted *Acacia (Acacia auriculiformis)* seedlings as affected by different rates of complete fertilizer (14-14-14). Undergraduate Thesis, Bacnotan, La Union, Philippines.

Language : English
 Key Words : -
 Executing Agency : DMMMSU-CAF
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Agroforestry Nursery,
 Sapilang, Bacnotan,
 La Union, Philippines
 Year Started : 1985
 Year Completed : 1986
 Notes : This study aims to determine which rate of complete fertilizer (14-14-14) when applied would result in best growth performance of outplanted acacia seedlings. Randomized Complete Block Design (RCBD) with three replications was subdivided into four plots which served as treatments: TA-control (no fertilizer), TB - 0.089 kg/tree, TC - 0.178 kg/tree, TD - 0.35 kg/tree. The results revealed that the application of complete fertilizer did not significantly affect the average monthly height (cm) increment and average monthly

diameter (cm) increment and final height (cm) and final diameter (cm) and the percentage survival of three months after fertilizer application. Based on the result of this study, treatment D is recommended since it resulted to the greatest height increment among the treatments used.

216.

Tan, K. C. and M. S. Sim

1986. The effect of topographic position on the growth of *Gmelina arborea* and *Acacia mangium*. Proceedings of the Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : English
 Key Words : silviculture, site factors,
 site-species testing,
 growth
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Gmelina arborea*,
Acacia mangium
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

217.

Tan, Kee Chong

1989. The effect of topographic position on the growth of *Gmelina arborea* and *Acacia mangium*. Regional Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : productivity, topographic
 position
 Executing Agency : SS
 Funding Agency : SS
 Status : CP
 Species : *Gmelina arborea*,
Acacia mangium
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1989

Notes : -

218.

Tangkas, M., Zoefri Hamzah and Purwowododo

1987. Studi sifat-sifat tanah yang sesuai bagi pertumbuhan *Acacia mangium* Willd. dan Pengaruhnya Terhadap Sifat-sifat Tanah di Benakat, Sumatera Selatan. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : soil properties
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1987
 Year Completed : 1987
 Notes : -

219.

Thaingam, Rattana, Boonchoob Boontawee, Pisan Kuwalairat and Anunt Sorngai

1988. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department. 2.

Language : Thai
 Key Words : plantation, silvicultural system
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *M. azedarach*,
A. auriculiformis,
Eucalyptus camaldulensis, *Acacia mangium*, *Leucaena leucocephala*
 Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)
 Year Started : 1982
 Year Completed : 1987
 Notes : -

220.

Tham, Chee Keong

1979. Trial of *Acacia mangium* Willd. as a Plantation Species in Sabah. FAO. Forest Genetic Resources Information No. 9, FAO/UNDP For. Occ. Paper 1979/1.

Language : English
 Key Words : silviculture, site rehabilitation, species suitability
 Executing Agency : FRC, FDS
 Funding Agency : FRC, FAO
 Status : CP
 Species : *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : 1976
 Year Completed : -
 Notes : -

221.

Tham, Chee Keong

1980. *Acacia mangium* Willd.: a plantation species for *Imperata cylindrica* (L.L. Beav.) grassland in Sabah. FAO/UNDP-MAL/78/009 report. Forest Research Centre, Sepilok, Sabah, Malaysia.

Language : English
 Key Words : silviculture, species trial, site rehabilitation
 Executing Agency : FRC
 Funding Agency : FRC
 Status : CP
 Species : *Acacia mangium*, *Pinus caribaea* var. *hondurensis*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

222.

Tham, Chee Keong and T. C. Liew

1977. Prospects of forest plantation in the tropics with particular reference to Sabah. Proceedings of the Pulp and Paper Seminar. Kuching, Sarawak, Malaysia. November 1977.

Language : English

- Key Words** : forest policy, forestation program
- Executing Agency** : FRC
- Funding Agency** : FRC
- Status** : CP
- Species** : *Acacia mangium*
- Sites** : Sabah, Malaysia
- Year Started** : -
- Year Completed** : -
- Notes** : -
- 223.**
Thavorn, Winai and Suree Bhumibhamorn
1988. Provenance trial of *Acacia mangium* at Lad Krating plantation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department. 2.
- Language** : Thai
- Key Words** : provenance trial
- Executing Agency** : TPC/KUFF
- Funding Agency** : -
- Status** : CP
- Species** : *Acacia mangium*
- Sites** : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)
- Year Started** : 1984
- Year Completed** : 1984
- Notes** : -
- 224.**
Thomas, K. I. and G. A. Kent
1987. Growth of *Acacia mangium* throughout Sabah. Proceedings of the ACIAR International Workshop. Forestry Training Centre, Gympie, Queensland, Australia.
- Language** : English
- Key Words** : development of stands, site factor, site-growth relationship
- Executing Agency** : FRC
- Funding Agency** : FRC
- Status** : CP
- Species** : *Acacia mangium*
- Sites** : Sabah, Malaysia
- Year Started** : -
- Year Completed** : -
- Notes** : -
- Notes** : -
- 225.**
Ting, Sie Ping
1986. Site evaluation for reforestation and rehabilitation projects in Sarawak. Proceedings of the Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia, October 1986.
- Language** : English
- Key Words** : site factor, site evaluation field survey, mapping, species-site matching
- Executing Agency** : FDSar
- Funding Agency** : FDSar
- Status** : CP
- Species** : *Acacia mangium*, *Albizia falcataria*, *Gmelina arborea*, *Durio zibethinus* and many others
- Sites** : Sarawak, Malaysia
- Year Started** : 1984
- Year Completed** : -
- Notes** : -
- 226.**
Tjakrawarsa, Gunardjo, Salman Parisy and Hardjono Arisman
1986. Breeding strategy *Acacia mangium* Willd. Studi Kasus di Subanjeriji, Prabumulih, Sumatra Selatan. B.Sc. Thesis, Faculty of Forestry, IPB.
- Language** : Indonesian
- Key Words** : breeding strategy
- Executing Agency** : FFIPB
- Funding Agency** : -
- Status** : CU
- Species** : *Acacia mangium*
- Sites** : -
- Year Started** : 1986
- Year Completed** : 1986
- Notes** : -

227.

Trikora, Bambang Djatmiko, Yusuf Sudo Hadli and Togar L. Tobing

1988. Pengaruh ukuran partikel dan kadar semen terhadap sifat papan semen *Acacia mangium* Willd. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : cement board, particle size and cement content
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

228.

Udarbe, M. P.

1984. Forest plantation development: economic considerations. A case study of the activities of Sabah Forestry Development Authority. Proceedings of the Seminar on Forest Plantation Development in Malaysia. Kota Kinabalu/Kundasang, Malaysia.

Language : English
Key Words : forest policy, forestation programmes, objectives, development strategies, economy, financing
Executing Agency : SAFODA
Funding Agency : SAFODA
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

229.

Udarbe, M. P.

1985. Economic consideration in forest plantation development - a case study of the activities of the Sabah Forestry Development Authority (SAFODA).

Language : -
Key Words : forest policy, implementation strategy, economics, financing
Executing Agency : SAFODA
Funding Agency : SAFODA
Status : CP
Species : *Acacia mangium*, *Pinus caribaea*, *P. oocarpa*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

230.

Uddin, M. Zashim, M. A. Latif, S. A. Khan and J. davidson

1983. Performance of different provenances of *Acacia mangium* in Bangladesh. Bano Biggyan Patrika 12(1&2):57-61.

Language : English
Key Word : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Acacia mangium*
Sites : Keochia S.R.S., Chittagong, Bangladesh
Year Started : 1983
Year Completed : 1983
Notes : -

231.

Why, Kong Hoi

1987. Fuelwood trees for rural industries. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : fuelwood, smoking of rubber sheets, tobacco curing, brick making
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Hevea brasiliensis*, *Rhizophora apiculata*, *R. mucronata*,

Melaleuca cajuputi,
Vitex sp., *Albizia*
falcataria, *Acacia*
mangium, *Eucalyptus*
deglupta

Sites : Kepong, Malaysia
Year Started : 1985
Year Completed : -
Notes : -

232.

Wickneswar, R., J. C. Bell, G. F. Moran and
A. R. Griffin

1989. Validity of controlled crosses between
Acacia mangium and *Acacia*
auriculiformis. Reg. Symposium on Recent
Developments in Tree Plantations of
Humid/Sub-Humid Tropics of Asia. UPM,
Serdang, 1989.

Language : -
Key Words : inter-specific crosses,
hybrid seeds, reciprocal
pairs, parental
genotypes

Executing Agency : FRIM
Funding Agency : F/FRED
Status : CU
Species : *Acacia mangium*,

A. auriculiformis

Sites : Kepong, Malaysia

Year Started : -
Year Completed : 1989
Notes : -

233.

Williams, J. St. J. and M. T. Low

1982. An examination of inbreeding in
Acacia mangium in Sabah.

Language : -
Key Words : genetics, genetics
variability, inbreeding

Executing Agency : DFS
Funding Agency : DFS
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -

Notes : -

234.

Wisuppakan, Kamon

1986. Growth of five species in biomass
studies of sample plot. Silvicultural Research
Bulletin, Royal Forest Department.
1:158-167.

Language : Thai
Key Words : MPTS, biomass, spacing
trial

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus*
camaldulensis, *Acacia*
auriculiformis, *C. siamea*,
Leucaena leucocephala,
A. indica

Sites : Amphoe Mae Taeng,
Changwat Chiang Mai
(400m)

Year Started : 1984

Year Completed : 1984

Notes : -

235.

Wong, W. C., K. S. Ho and C. N. Wong

1988. *Acacia mangium* from Sabah for
plywood and decorative panel manufacture
initial trials. Journal of Tropical Forest
Science.

Language : -

Key Words : slicing, peeling, panel
production

Executing Agency : FDS

Funding Agency : FDS

Status : CP

Species : *Acacia mangium*

Sites : Sabah, Malaysia

Year Started : -

Year Completed : -

Notes : -

236.

Wongkhaluang, Charuni, Chatuporn
Mangkhalarat, and Yupaporn Sornnuwat

1986. The comparative destruction of termites from pine plantation. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section. 2:287-295.

Language : Thai
Key Words : termites, destroy
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Melia azedarach
Sites : Amphoe Muang,
Changwat Chiang Mai
Year Started : 1986
Year Completed : 1986
Notes : All species studied were found to be moderately durable-very durable to *Coptotermes gestroi*, *Globitermes sulphureus*, *Microcerotermes crassus* and *Macrotermes carbonareus* and perishable-durable to *G. sulphureus*.

237.

Wongmanee, Chamnan, Kowit Pong-anunt and Somyot Ktikha

1989. Rooted cutting of hybrid of *Acacia mangium* and *Acacia auriculiformis*. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:145-157.

Language : Thai
Key Words : root cutting, hybrid
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia mangium*,
A. auriculiformis
Sites : Amphoe Pak Chong,
Changwat Nakhon
Ratchasima, Thailand
(520m)
Year Started : 1988
Year Completed : 1988
Notes : Factors of root cutting:
Seed tree and branch position on tree, but not hormone.

238.

Wuttiwichan, Tinnakorn and Boonchoob Boontawee

1988. Development of potting system. Proceedings of the Forestry Conference. Royal Forest Department 2.

Language : Thai
Key Words : pot, techniques
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Melia azedarach*, *Acacia auriculiformis*
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (400m)
Year Started : 1988
Year Completed : 1988
Notes : -

239.

Wuttiwichan, Tinnakorn and Boonchoob Boontawee

1988. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department 1.

Language : Thai
Key Words : seedling, media, growth
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Melia azedarach,
Eucalyptus camaldulensis,
Leucaena leucocephala
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : -

240.

Yap, S. K.

1987. Introduction of *Acacia* species to Peninsular Malaysia. ACIAR Proceedings.

Language : -
Key Words : species introduction
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

241.

Yap, S. K. and S. M. Wong

1983. Seed Biology of *Acacia mangium*, *Albizia falcataria*, *Eucalyptus* spp., *Gmelina arborea*, *Maesopsis eminii*, *Pinus caribaea* and *Tectona grandis*. Malaysian Forestry.

Language : -
Key Words : silviculture, seed morphology, seed extraction, germination testing
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*, *Albizia falcataria*, *Eucalyptus* spp., *Gmelina arborea*, *Tectona grandis*
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

242.

Yong, C. T.

1984. Compensatory plantations in Peninsular Malaysia. Proceedings of the Seminar on Forest Plantation Development in Malaysia.

Language : -
Key Words : forest policy, implementation strategy, financing, silviculture
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP

Species : *Acacia mangium*, *Gmelina arborea*, *Albizia falcataria*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

243.

Yoshii, R.

1982. Preliminary findings of damages caused by insects in tree plantations. Proceedings of the Eight Malaysian Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : forest injuries and protection, insect pests
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

244.

Yuli, Hartono RS, Zahrial Coto and Dodi Nandika

1987. Study sifat mekanis contoh kecil bebas cacat kayu *Acacia mangium* Willd. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : mechanical properties
Executing Agency : FF
Funding Agency : -
Status : CU
Species : *Acacia mangium*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

245.

Yusof, Mohd. Noor Mohd., K. C. Khoo, T. W. Lee and T. B. Peh

1986. Sulphate pulping of *Acacia auriculiformis* from Peninsular Malaysia. Malay. For. 49:23-34.

Language : English
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia auriculiformis*
 Sites : Kepong, Malaysia
 Year Started : 1985
 Year Completed : -
 Notes : -

246.
 Zansibar, Muh., Sri Sugiharti, Adl.
 Triswanto

1988. Tingkat kemasakan dan ekstraksi benih jenis aasia (*Acacia mangium* Willd.) dengan cara penjemuran. Balai Teknologi Perbenihan, 46; Agustus.

Language : Indonesian
 Key Words : fruit maturity stage, seed-extraction
 Executing Agency : BTP - Seed Technology Institute, Indonesia
 Funding Agency : BTP
 Status : CP
 Species : *Acacia mangium*
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

1.

Abood, Faizah and Mahpar Atan

1989. Susceptibility of wood from fire plantation species to *Coptermes curvignathus*. Proceedings of Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-humid Tropics of Asia. UPM, Serdang Malaysia, 1989.

Language : -
Key Words : forced feeding, wood blocks, weight loss of test blocks
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*, *Pinus caribaea*, *Paraserianthes falcataria*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

2.

Adhie, Ch. Setyo, T. R. Mardikanto, Surjono Surjokusumo

1983. Penggunaan laminasi sayatan bambu serta pengaruhnya terhadap sifat lentur kayu jeunjing (*Albizia* spp.) BKS Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : laminated bamboo cutting, elastic properties
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia* spp., bamboo
Sites : -
Year Started : 1983
Year Completed : 1983
Notes : -

3.

Agbayani, Flor V.

1981. Feasibility of falcata (*Albizia falcataria*

Fosberg) log exportation for the Paper Industries Corporation of the Philippines. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : log exportation, technical feasibility
Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : OR
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : 1982
Year Completed : 1990
Notes : The feasibility of falcata log exportation for 1982 was determined in accordance with technical and economic considerations. Considering the projected falcata log availabilities and the projected demands of the manufacturing mills, technical feasibility was based on the capability of the company to produce good quality falcata log for export. Through proper cut scheduling of the projected operable falcata plantations, it was estimated out that about 1.132 million cu. m. (or an average of 125,000 cu. m. per year) would be available for export within the planting period.

4.

Ahmad, Darus B. HJ.

1983. Nursery techniques for *Gmelina arborea*, *Acacia mangium*, *Albizia falcataria* and *Eucalyptus* species at the nursery Kepong. FRI Report No. 36.

Language : -
Key Words : silviculture, nursery techniques
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Gmelina arborea*, *Albizia falcataria*, *Eucalyptus* sp.
Sites : Kepong, Malaysia
Year Started : -
Year Completed : -
Notes : -

5.

Ahmad, Norami Bt. and Mazlah Bt. Zakaria

1987. Mycorrhizal experimentation with some timber tree species in Malaysia. Proceedings of Asian Seminar on Trees and Mycorrhiza. Kuala Lumpur, Malaysia.

Language : English
Key Words : autecology, symbiotic relationship, VA mycorrhiza, inoculation, mycorrhiza testing
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Albizia falcataria*, *Gmelina arborea*, *Intsia palembanica*, *Leucaena leucocephala*
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

6.

Alana, C.

1982. Gluability of veneer of lesser-used and small diameter tree species and their bond durability in long term exposure. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : resin glue, bond durability, pressing pressure, gluability
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1982
Year Completed : 1982
Notes : The gluing characteristics of *Albizia falcataria* veneers were investigated using phenol-formaldehyde resin glue. Variables studied were three levels of pressing temperature (95, 145, 190 C) and pressing pressure (6.3, 8.4 and 11.9 kg/sq.cm.). The gluing conditions used were:

assembly time = 30 minutes, glue-spread = 28 g/SGL and pressing time = 3.3 minutes. Three-ply test panel replicates were fabricated for every level combination of the variable. The panels were tested in accordance with PHILSA-1-2-68, Revised 1975 for exterior-type plywood, shear strength and wood failure values were measured and recorded.

7.

Alcachupas, Raymundo C. and Francisco Lapitan

1988. Production of lumber from small diameter logs by saw-dry-rip (SDR) method. FPRDI Annual Report.

Language : English
Key Words : SDR (saw dry rip), crook, twist, split, warps
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Eucalyptus deglupta*, *Gmelina arborea*, *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1986
Year Completed : 1987
Notes : The lumber yield and quality of small diameter logs in relation to conversion method was investigated. Five plantation species were studied, namely: Benguet pine (*Pinus kesiya* Royle ex Gordon), Moluccan sau (*Albizia falcataria* L. Back.), Gmelina (*Gmelina arborea* Roxb.), gubas (*Endospermum peltatum* Merr.) and Bagras (*Eucalyptus deglupta* Blume). The log samples per specie were processed by saw-dry-up (SDR) and conventional sawing system. Results indicated superiority of the SDR over the conventional system in minimizing drying of growth stress-lumber defects such as split, cup, bow, crook and twist for all species. Based on the total lumber output per specie, 0-18% exhibited negligible degrees of warp in the SDR while more than 50% in the conventional system developed serious forms of warps specifically in Moluccan sau. The SDR system significantly increased the final lumber

recovery of Benguet pine and Bagras by 1% and 4%, respectively. However, this finding was reversed in favor of the conventional method in Moluccan sau, Gmelina and gubas perhaps due to the interaction of other factors involved in the processing operation for these three species. These included differences of sawing equipment used and high variation of log input characteristics.

8.
Ang, L. H.

1987. Some potential tree species for reclamation of tin tailings. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
Key Words : -
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia auriculiformis*,
Casuarina equisetifolia,
Melaleuca leucadendron, *Albizia falcata*
ria
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

9.
Asiani, Yani, Surdiding Ruhendi and Suwardi Sumadiwangsa

1987. Kualitas papan partikel kayu jeunjing (*Albizia falcata* Fosberg) dengan perekat babakan bakau-bakau. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : particle board quality, bakau-bakau glue
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcata*, bakau-bakau
Sites : -
Year Started : 1986

Year Completed : 1987
Notes : -

10.
Azrissal, Junus Kartasubrata and Dudung Darusman

1987. Studi ekonomi rumah tangga petani kebun campuran dan bukan kebun campuran *Albizia falcata* (L.) Fosberg di Desa Bojonggenteng, Kecamatan Parungkuda, Kabupaten Sukabumi, Jawa Barat. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : household economy, mixed and unmixed garden
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcata*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

11.
Barlian, Ellan, Sudaryanto and Mulyadi Bratamihardjasa

1985. Pengaruh jarak tanaman terhadap pendapatan pesanggem dan pertumbuhan serta kualitas tanaman pokok *Albizia falcata* di BKPH pare, KPH kediri, B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : plant spacing
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcata*
Sites : -
Year Started : 1985
Year Completed : 1985
Notes : -

12.
Basada, Romeo M.

1981. Direct seeding of Moluccan sau (*Albizia falcataria* (L.) Fosb.). Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : Moluccan sau, stocked seedspots, seed dormancy, surface sowing, sub-surface sowing

Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : CU
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines

Year Started : -
Year Completed : -
Notes : Two site preparation methods, two-pre-sowing seed treatments and four-sowing methods were evaluated to determine their effects on the germination, seedling survival, growth and percentage of stocked seedspots of directly seeded Moluccan sau. Germination, seedling survival and percentage of stocked seedspots did not significantly vary between the total clearing and strip cutting methods of site preparation. However, average height and diameter of the seedlings growing under total clearing were significantly taller and bigger, respectively compared to those growing under strip cutting six months after sowing. The use of treated seeds had significant advantage over untreated seeds in terms of germination, seedlings growth in the first three months of development and on the percentage of stocked seedspots six months after sowing, sub-surface sowing gave significantly higher germination and seedling survival within the germination period compared to surface sowing. The use of old stock seeds, the presence of ants which feed on the seeds and seed dormancy were identified as the main factors contributing to the very low germination percentage. Seedling mortality which occurred mostly during the first month of seedling establishment was mainly due to stem cutting, most likely by insects.

13.
Bowen; M. R. and T. V. Eusebio

1982. Seed handling practices: four fast growing hardwoods for humid tropical plantations in the eighties. Malaysian Forestry 45(4):534-547.

Language : -
Key Words : silviculture, seed technology, seed storage

Executing Agency : FRC
Funding Agency : FRC
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Eucalyptus deglupta
Sites : Sabah, Malaysia

Year Started : -
Year Completed : -
Notes : -

14.
Budi, Astrik Mursatio, Surdiding Ruhendi and Ridwan A. Pasaribu

1986. Kualitas pulp NSSC berbagai umur kayu jeunjing (*Albizia falcataria* Fosberg) untuk kertas medium dan lainer. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : pulp quality
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1985
Year Completed : 1986
Notes : -

15.
Budiharto, TH., Sadan Widarmana and Paribotro Sutigno

1989. Pengaruh kehalusan permukaan vinir dan berat labur terhadap keteguhan rekat kayu lapis jeunjing (*Albizia falcataria*). BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian

Key Words : internal bound, veneer, plywood
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1989
Year Completed : 1989
Notes : -

16.

Crizaldo, Enrique N.

1980. Tissue culture of fast-growing trees. Philippine Forest Research Journal 5(2):123-138.

Language : English
Key Words : tissue culture, culture media, callus induction
Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : 1977
Year Completed : 1980
Notes : Various plant tissue culture media were assessed for callusing of Moluccan sau (*Albizia falcataria* (L.) Back) using embryo culture as a model system. Only culture media 7(M7) and 13(M13) were found suitable for callus induction. Stem tissue also responded to these culture media. The best response was observed with M13 especially when supplemented with 0.5 mg/1 NAA (naptalene acetic acid) + 0.5 mg/1 IBA (indole-3butyric acid), or with 2 mg/1 IBA only. Differentiation into roots and/or shoots was observed with either media. A few shoots with roots that developed did not survive when transplanted and grown in pots outside the aseptic condition. When the plantlets with roots were treated with 20 ml of 0.1 ppm triacontanol immediately after transferring into the pots, they recovered completely and were able to survive the normal growing conditions outside the laboratory. Tissue culture medium 13 was also found suitable for callus induction of yemane (*Gmelina arborea*), Benguet pine

(*Pinus insularis*) and Carribean pine (*Pinus caribaea*).

17.

Crizaldo, Enrique N., Marietta Q. Amatorio and Arnel A. Lansigan

1979. Effects of triacontanol on seedlings of Moluccan sau *Albizia falcataria* (L.) Back). Philippine Forest Research Journal 4(4):261-267.

Language : English
Key Words : reforestation, triacontanol, tree growth and survival, sawdust compost
Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1979
Year Completed : 1979
Notes : Triacontanol is a natural long chain alcohol (C28) commonly found in many waxy plants proven to significantly increase yield of many field crops. The plant extract was found to be effective in enhancing shoot growth and root development of Moluccan sau seedlings when sprayed on the leaves at 0.10 and 0.15 ppm in the present experiment. Also, results indicated that triacontanol may be used to enhance growth and survival of Moluccan sau seedlings.

18.

Cruz, Cerenilla A. and Margaret P. Mejorada

1986. Pre-sale practices and marketing procedures of selected *Leucaena* and *Albizia* end-products in the Philippines. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : marketing, pre-sale practices
Executing Agency : UPLBCF
Funding Agency : UPLBCF

Status : CU
Species : *Leucaena* and *Albizia*
Sites : College, Laguna, Philippines
Year Started : 1985
Year Completed : 1986
Notes : The study was conducted to determine the types and cost of pre-sale practices of selected *Leucaena* and *Albizia* end-products; identify and assess marketing procedures of these end-products; conduct a survey of government regulations which affect the marketing and set up guidelines for formulation of appropriate policies on the marketing of these end-products. The *Leucaena* end-products considered for the study were fuelwood, charcoal, dried leaves and poles and propping materials. For *Albizia* only pulpwood was considered. Data was collected using prepared interview schedule and library survey. Results of the study showed that pre-sale practices of the products are affected by the kind of product and the locality. Likewise the cost of these practices is basically the labor cost incurred. With the exception of pulpwood, it was found that the marketing procedures for *Leucaena* and *Albizia* end-products (choice of outlets, price determination, transportation arrangement, terms of sale) are similar. Government rules/regulations affecting the production and marketing of *Leucaena* and *Albizia* end-products primarily involve cutting, gathering, collecting, and transporting forest products. Among the recommendations that arose from the study was the formation of producers' cooperatives to facilitate and make efficient marketing.

19.

Dalmacio, Marcelino V.

Site quality assessment of *Albizia falcataria* in Mindanao, Philippines: field verification and improvement. Terminal Report. FORI, College, Laguna, Philippines.

Language : English
Key Words : site quality assessment
Executing Agency : FORI
Funding Agency : FORI
Status : CU

Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines

Year Started : -

Year Completed : -

Notes : A total of 63 sample plots were studied. Fifty plots were used to generate new site quality equations and the remaining thirteen were used for calibration purposes. Tree variables: Ages of the sampled plantations ranged from 3 to 11 years. However, 58 of these were 3-6 yrs old, while only 3 plots belonged to age 7, and 2 for age 11. Average total height was 16.64m and the mean diameter (breast height) was 23.58cm. Based on Appleton's equation (1980), the site index of the samples ranged from 13.085m to 37.28m or a mean of 23.22m. Physiological variables-almost an equal number of samples represented the 3 slope positions, namely bottom slopes of valleys (slope position 1), midslopes (slope position 2) and ridges (slope position 3). Average slope was about 26%, varying from level to very steep (100%). Elevation ranged from 70 to 390m. A number of plots have very shallow topsoil; (7.5cm-10cm); while others were deep (more than 30cm). Average topsoil depth was 19.63cm. On the other hand, the subsoil mean depth was 55cm, ranging from 14.5cm- 112.25cm. Soil chemical properties-the soil was strongly acidic to acidic with a mean pH of 3.79, in the A horizon and 3.85 in the B horizon. The organic matter contents of soil were high which averaged 4.28 (from 0.35% to 8.22%). Iron and aluminum contents of the soil averaged 28.6 ppm and 7.96 ppm in the topsoil, respectively and 11.21 ppm and 7.47 ppm, respectively in the subsoil. Mean available phosphorus for A and B horizons, were 2.117 ppm and 1.936 ppm.

20.

Dalmacio, Marcelino V.

1986. Assessment of site quality for *Leucaena leucocephala* and *Albizia falcataria*. Terminal Report. Forest Reserach Institute, College, Laguna, Philippines.

Language : English
Key Words : -

Executing Agency : FORI
Funding Agency : FORI
Status : CU
Species : *Leucaena leucocephala*,
Albizia falcataria
Sites : College, Laguna,
 Philippines
Year Started : -
Year Completed : 1986
Notes : Functional relationship
 between age and dominant height (tree-site
 index method) and between site index and
 site properties (soil-site index method) were
 developed for *Leucaena leucocephala*.
 Development of site index prediction
 equation was based on 511 temporary
 sample plots established all over the
 country representing 3 climatic types. For
 soil-site index method, the most influencing
 factors affecting site index are: depth,
 phosphorus, magnesium and calcium content
 and cation exchange capacity of A-horizon,
 and pH, cation exchange capacity and
 magnesium content of B-horizon to six
 prediction equations were developed for this
 approach. The results showed that tree-site
 index method is more practical, efficient, less
 expensive and easier to conduct than the
 soil-site index method. Use tree-site index
 method cannot be applied.

21.
dela Cruz, Reynaldo E.

1984. Phenology of selected industrial forest
 plantation species. Terminal Report.

Language : English
Key Words : -
Executing Agency : UPLB-PCARRD IND
Funding Agency : UPLB-PCARRD IND
Status : CU
Species : *Gmelina arborea*,
Albizia falcataria,
Eucalyptus deglupta,
Leucaena leucocephala
Sites : Laguna, Nueva Vizcaya,
 Abra, Philippines
Year Started : 1980
Year Completed : 1984
Notes : Diameter growth of
 selected fast-growing tree species (L.
 Bangkal, Yemane, Moluccan sau, red gum,

bagras, gubas and ipil-ipil) as affected by
 climatic factors (rainfall, evaporation,
 relative humidity, radiation, sunshine
 duration and air temperature) in three sites
 (Laguna, N. Vizcaya and Abra) were
 studied. Phenological phenomena (flower
 bud formation, flowering, fruiting, formation
 of matured fruits, seed dispersal, shedding of
 leaves, flushing and bark shedding) for each
 species as they relate to climatic conditions
 were also observed. Lastly, the annual
 magnitude and cycle of growth for each
 species were studied.

22..
Dichoso, Maximo O.

1984. Drought tolerance of some
 reforestation species. Philippine Forest
 Research Journal 9(3-4):197-210.

Language : English
Key Words : reforestation, drought
 olerance, soil moisture
Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Gmelina arborea*, *Acacia*
auriculiformis, *Albizia*
falcataria
Sites : College, Laguna,
 Philippines
Year Started : 1983
Year Completed : 1984
Notes : The study was conducted
 to determine the survival performance of five
 reforestation species when exposed to
 drought conditions. Results of the study
 showed that yemane (*Gmelina arborea* Linn.
 Roxb.) and *Acacia auriculiformis* Cunn.
 performed better than Mahogany (*Swietenia*
macrophylla King.), narra (*Pterocarpus*
indicus Willd.) and Moluccan sau (*Albizia*
falcataria L. Back). Narra, however,
 performed slightly better than Moluccan sau
 but not better than mahogany. The observed
 differences of performance among species
 under moisture stress condition is believed to
 be due to the difference in the physical and
 structural features of the species.

23.

Edle, Haris, Hardjanto and Ahmad Hadjib

1987. Studi tentang daur finansial tegakan *Albizia falcataria* (L.) Fosberg di BKPH pare KPH kediri Perum Perhutani Unit II Jawa Timur. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : financial rotation, provenances
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

24.

Egula, Castillo, Cruz and Arturo A. Pablo

1990. Suitability of some LKS and ITPS for the manufacture of general pallets. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : palletes, LKS (lesser known species), ITPS (industrial tree plantation species), splitting, cracking
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Gmelina arborea*, *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1987
Year Completed : 1990
Notes : Data were gathered on the strength value of LKS and ITPS and their strength grouping. These include the physical and mechanical properties. Six pallets from duguan and six pallets from bokbok were fabricated. Three pallets each were then subjected to drop test and the other were subjected to inclined impact test. The drop test showed that at the height of 61 cm (2ft) the pallets were slightly damaged.

The pallets were again dropped 10 times at the height of 153 cm (4 ft). Visual inspection showed that splitting and cracking occurred but it took about 20 to 25 drops before the pallets became totally unserviceable. Cracks were observed to have started at nail joint and some nails were withdrawn. *Albizia falcataria* and yemane logs were sawn into lumber and air-dried before fabrication into pallets. The raw materials however, were made available only during the last quarter. By the end of March 1990, pallets from *Albizia falcataria* and yemane shall have been fabricated and tested.

25.

Eusebio, Mario A. and Marcos J. Quimio Jr.

1981. Canker in *Albizia falcataria* (L.) Back.: its effect on certain wood properties. Philippine Forest Research Journal 6(4):181-193.

Language : English
Key Words : canker, wood properties, toughness, specific gravity, decay capacity
Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : -
Year Completed : -
Notes : After a series of isolations and pathogeneity tests, the fungus that causes canker in Moluccan sau (*Albizia falcataria* (L.) Back.) trees in Bislig, Surigao del Sur, Mindanao island, was identified as *Corticium salmonicolor* B & Br. Canker was observed on stems or branches of older trees. *Corticium salmonicolor* caused minimal decay (% weight loss) which indicates that the fungus is not a real wood decayer considering the extent of decay made by two known wood decayers, namely, *Diplodia* sp. and *Pestalotia estalata* Berk. and Curt. Microscopic examination of wood sections revealed its hyphae mostly growing within the wood rays where a lot of food nutrients are found especially in living sapwood. Its effect on certain wood

properties and fiber quality varied according to the kind of injury inflicted on the trees.

26.

Eusebio, Mario A., Fernando P. Ilagan and Marcos P. Quimio Jr.

1980. Infection trend and control of canker of Moluccan sau (*Albizia falcataria* (L.) Back.) in Bislig, Surigao del Sur. Philippine Forest Research Journal 5(2):99-122.

Language : English
Key Words : *Corticium salmonicolor*, pathogenicity tests, biological control, artificial inoculation, Bordeaux mixture, *Pestalotia estalata*

Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines

Year Started : 1977
Year Completed : 1978
Notes : Infestation and recovery rates of trees canker in Moluccan sau plantations in Bislig, Surigao del Sur were influenced by several factors such as age of trees, rainfall, soil conditions and other organisms considered as secondary canker fungus invaders specially *Pestalotia estalata* which appeared to have placed *Corticium salmonicolor* at an ecological disadvantage. The application of Bordeaux mixture (200 g of Cu₂ SO₄ and 200 g of CaO in 1,500 ml of water) on infected trees in the seed orchard gave satisfactory results based on limited tests. Initial results in the selection of plus tree from the heavily infected Moluccan sau plantations were encouraging.

27.

Eusebio, Mario A., Marcos J. Quimio Jr. and Fernando P. Ilagan

1979. Canker of Moluccan sau (*Albizia falcataria* (L.) Back.) in Bislig, Philippines Forest Research Journal 4(4):191-214.

Language : English
Key Words : *Corticium salmonicolor*, disease reconnaissance survey, *Albizia* canker, patho-genicity tests

Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Albizia falcataria*
Sites : Bislig, Surigao del Sur, Philippines

Year Started : 1977
Year Completed : 1977
Notes : Based on a series of isolations and pathogenicity tests, the fungus causing canker of Moluccan sau trees in Bislig, Surigao del Sur was identified as *Corticium salmonicolor* (class Basidiomycetes, family *Thelephoraceae*). The disease was prevalent on stems and branches of trees below 3 years old. On older trees only the young branches were affected. The disease was very prevalent during rainy season or when there was enough moisture content to support the growth of the organism. During drier season months, the organism was relatively inactive. On the average, the disease affected as much as 76% of the trees in the plantations although there were areas where 93 to 98% of the trees was observed to be infected.

28.

Francia, Purita C.

Albizia falcataria bark analysis and utilization as supplement for chicken feeds. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines

Year Started : 1988
Year Completed : 1988
Notes : -

29.

Francia, Purita C.

1976. Viscose rayon from Moluccan sau (*Albizia falcataria* (L.) Fosberg). Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : xanthation process, sulfate pulping, alkali content, tensile strength, viscose rayon

Executing Agency : MS Thesis

Funding Agency : MS Thesis

Status : CU

Species : *Albizia falcataria*

Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : Moluccan sau (*Albizia*

falcataria (L.) Fosb.) wood was initially processed into dissolving pulp, then converted into viscoses by the xanthation process and finally spin into rayon. The sulfate pulping of Moluccan sau yielded 39.7% pulp based on moisture-free wood chips. the alpha cellose, pentosan, ash and resin contents of the sulfate pulp were 92.00, 2.11, 0.37 and 0.15%, respectively. The viscosity was 9.01 cp, while the degree of polymerization was 890. The experimental dissolving pulp was xanthated and the viscose ripened on the 6th day with a Hottenroth number of 9.1 and a salt-point index of 3.7. The ripened viscose had an alkali content of 7.81% and a cellulose content of 6.21%. Spinning of the ripened viscose into rayon was done in a laboratory preumatic wet-spinning apparatus at various levels of concentrations of alkali in steeping, spin bath, temperature, immersion length, and spinning rate (stretch). A total of 288 specimens of viscose rayon from different treatments were tested for tensile strength and elongation. Statistical analysis showed that temperature gave the highest effect on the tensile strength. It was followed by spinning rate, immersion length and concentration of sodium hydroxyde used in steeping of the cellulose. The rayon fiber had a density of 1.52-0.01 and shrinkage value of 1.12 + 0.01. It was shown that the

solubility in various solvents, staining properties, microscopic characteristics and burning quality of experimental rayon conformed with commercial ones.

30.

Garcia, Mercedes U.

Introduction of mutation and selection for resistance of *Albizia falcataria* to the blight/canker disease. UPLBCF, College, Laguna, Philippines.

Language : English

Key Words : -

Executing Agency : UPLB

Funding Agency : UPLB

Status : CU

Species : *Albizia falcataria*

Sites : UPLBCF, College, Laguna, Philippines

Year Started : 1982

Year Completed : 1986

Notes : -

31.

Gonzales, Esther V.

1984. Leaf protein from hardwood species as feed supplement for chicken. FPRDI Journal 13(1):66-75. FPRDI, College, Laguna, Philippines.

Language : English

Key Words : leafmeal, hardwood, softwood, hubbard chicken

Executing Agency : FPRDI

Funding Agency : FPRDI

Status : CP

Species : *Sesbania grandiflora*, *Albizia falcataria*, *Glicicidia sepium*

Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : Of the eight leaf species analyzed for protein content, katurai (*Sesbania grandiflora* (L.) Pers.) gave the highest protein content of 29.58% followed by Moluccan sau (*Albizia falcataria* (L.)

Fosb.) with 26.14%. the leaves of these two species were used in the experimental feeding of chicken to evaluate the nutritional value of the leaf proteins. Katurai and Moluccan sau leaf meal, in separate feeding trials, were incorporated as protein source with or without fish meal in the basic diet of experimental chickens. The control diet consisted of 15% fish meal. In addition to the basic ingredients, the three experimental diets had 3.75%, 11.25% and 15% of either katurai or Moluccan sau leafmeal. The feed efficiency of the leafmeal was determined by the amount of feed consumed and the weight of the chicken. Statistical analysis showed that the gains in weight of chicken fed with 3.75% and 11.75% katurai leafmeals were not significantly different from those rationed with the control diet of 15% fish meal. The feed efficiencies of the diets of these two levels of leaf meal were better or just as good as the control. With Moluccan sau, only the diet with 3.75% leafmeal was not significantly different from the control. However, the feed efficiency of this diet was not comparable to the control. The results of the experimental study showed that katurai leaves can be used as a feed supplement to the basic diet of chicken in levels of 3.75-11.25% as substitute for the conventional fish meal. Moluccan sau leaves can be used up to a level of 3.75%.

32.

Guimayen, Gloria

Effect of laterite soil on the growth and survival of Moluccan sau (*Albizia falcataria* (L.) Back.) and yemane seedlings.

Language : English
Key Words : -
Executing Agency : ERDB(FORI)
Funding Agency : ERDB(FORI)
Status : CU
Species : *Albizia falcataria*
Sites : DENR Region IV, Philippines
Year Started : 1981
Year Completed : 1985
Notes : -

33.

Harianto, Sugeng Prayitno, Gunarwan Suratmo and Endang Akhmad Husaeni

1981. Derajat serangan *Xystocera festiva* PASCOE dan kerugian pada tanaman *Albizia falcataria* milik rakyat di kabupaten sukabumi. B.Sc. Thesis, Faculty of Forstry, IPB

Language : Indonesian
Key Words : *Xystocera festiva*
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1981
Year Completed : 1981
Notes : -

34.

Hendromono

1989. Pengaruh pupuk NPK dan frekuensi penyiraman pada dua jenis tanah terhadap pertumbuhan dan mutu bibit jeunjing (*Albizia falcataria*). Bul. Pen. Hutan 509:17-26.

Language : Indonesian
Key Words : effects of NPK and watering
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Albizia falcataria*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

35.

Hoekstra, D. A.

1984. An *ex-ante* economic analysis of proposed mixed and zonal agroforestry systems for the Batu Arang Forest Reserve, Malaysia.

Language : -
Key Words : agroforestry, silvipasture,

economic evaluation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Albizia falcataria*,
Acacia mangium,
Gmelina arborea,
Erythrina poeppigiana
Sites : Batu Arang, Malaysia
Year Started : -
Year Completed : -
Notes : -

36.

Ikhasan, Edje Djamhuri and Kurnia Sofyan

1987. Keragaman dimensi serat pada kayu
Albizia falcataria (L.) Fosberg. B.Sc. Thesis,
 Faculty of Forestry, IPB.

Language : Indonesian
Key Words : fiber dimension
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

37.

**Ikhsanudin, Yahya Fakuara and
 Soedarmadi**

1987. Pengaruh beberapa media tumbuh
 dan penggunaan abu serasah daun
 dipterocarpaceae pada pertumbuhan semai
Albizia falcataria. B.Sc. Thesis, Faculty of
 Forestry, IPB.

Language : Indonesian
Key Words : growth medium,
 dipterocarp litter
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

38.

Islam, M. Sirajul

Studies on the growth performance of some
 fast growing species in Chittagong university
 hills and their effects on soil.

Language : -
Key Words : -
Executing Agency : BDCU
Funding Agency : BDCU
Status : CU
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Albizia lebbek, *Pinus* spp.
Sites : Chittagong University
 Campus, Bangladesh
Year Started : 1987
Year Completed : 1989
Notes : -

39.

Jacalne, Domingo V. and Danilo Cacanlindin

Regeneration methods for *Albizia falcataria*
 (L.). Back. plantation. PCARRD-IBRD
 Forestry Project Study 2.2. Philippines.

Language : English
Key Words : -
Executing Agency : PCARRD,FORIN,NAL
Funding Agency : PCARRD,FORIN,NAL
Status : CU
Species : *Albizia falcataria*
Sites : Nasipit, Surigao del
 Norte, Philippines
Year Started : -
Year Completed : -
Notes : -

40.

Jones, N. and H. Jacob

1982. Seed supplies and genetic
 improvement: four fast-growing hardwoods
 for Sabah plantations in the eighties.
 Proceedings of the Eighth Malaysian
 Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : silviculture, tree
 improvement, seed

supply
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Gmelina arborea
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

41.

Kader, Razali Abdul and Kuo Hai Sui

1989. Properties of particleboards manufactured from fast-growing plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : thinning wood, synthetic resin adhesive
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*,
Gmelina arborea,
Paraserianthes falcataria,
Araucaria hunstenii
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

42.

Kar, N. K. and M. Z. Abedin

Testing homestead agroforestry module for fuel and fodder in Barind area.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : BARI
Status : OR
Species : *Leucaena leucocephala*,
Albizia procera,
Melia azedarach,
Dalberia sissoo

Sites : F.S.R. site, Saroil,
 Barind, Rajshahi,
 Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

43.

Karya, Haris T. H., Igg Tapa Darma and Oemijati Rachmatsyah

1987. Identifikasi beberapa jenis jamur pelapuk kayu jeunjing (*Albizia falcataria*) di BKPH pare, KPH kediri. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : decay fungi
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1986
Year Completed : 1987
Notes : -

44.

Khan, M. R.

Introduction of different quick growing multi-purpose tree species in the homesteads.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : BARI
Status : OR
Species : *Leucaena leucocephala*,
Albizia procera,
Eucalyptus camaldulensis
Sites : F.S.R. site, Palima,
 Tangail, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

45.

Khou, Kean Choon, Mohd. Noor Mohd. Yusoff, Lee Tack Wan

1989. Some compensatory forest plantation species for paper pulping. Regional Symposium on Recent Developments in the Tree Plantation of Humid/Subhumid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : -
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*,
Paraserianthes falcataria,
Gmelina arborea
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

46.

Kisdurutomo, Wahyu, Kurnia Sofyan and Ridwan A. Pasarihu

1986. Pengaruh komposisi campuran pulp kayu jeunjing dan pulp pelepah kelapa sawit terhadap sifat-sifat lembaran pulp. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : wood pulp, oil palm pulp
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

47.

Lapitan, Alchupus

1990. Sawmilling system for small diameter logs. FPRDI-DOST Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR

Species : *Albizia falcataria*
Sites : College, Laguna, Philippines

Year Started : 1989

Year Completed : 1990

Notes : Sawmilling of *A. falcataria* logs with diameter and length ranging from 14-25 cm and 2.2-3.5 m were sawn at PICOP sawmill facility. A total of 5.39 m³ was processed at their (PICOP) hand-fed resaw while 9.11 m³ was sawn at the gangsaw. Percent lumber recovery were: resaw - 36.62% and gangsaw - 29.16%. Thirty logs of *A. falcataria* were shipped from PICOP to FPRDI and were processed at the 23HP FPRDI portable circular sawmill and the newly reconditioned 36" band resaw. Another batch of dipterocarp (bagtikan, red lauan, mayapis and almon) branches, 10-20 cm in diameter and 3-6 ft long, from Mindanao were conventionally sawn using the portable sawmill. Evaluation and analysis of data is in progress.

48.

Lasmarias, Victoria T.

1979. Survival and growth of Akle (*Albizia acle* (Blanco) Kosterm.) and supa (*Sindora supa* Merr.) in various potting media. Philippine Forest Research Journal 4(3):161-166.

Language : English
Key Words : survival, growth, potting media, shoot-root ratio, Duncan's multiple range test

Executing Agency : FORI

Funding Agency : FORI

Status : CP

Species : *Albizia acle*,
Sindora supa

Year Started : -

Year Completed : -

Notes : Akle and supa seedlings were potted in 17.78 cm x 20.32 cm polyethylene bags of 10 different soil media. Seven months after potting, ordinary garden soil (OGS) and sand mixture (2:1) and sand humus mixture (1:1) appeared to be the most satisfactory potting media for supa seedlings. On the other hand, for akle, OGS and its

mixture with sand (2:1) was found to be the most suitable medium.

49.

Libuit, Juliana S.

1985. Callus in Moluccan sau (*Albizia falcataria* (L.) Bach). Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : callus, culture media, growth regulators, Moluccan sau

Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines

Year Started : 1983
Year Completed : 1984
Notes : Eight culture media were tested to induce callus formation in Moluccan sau (*Albizia falcataria* (L.) Back). All the media tested initiated callus formation except for the media containing only the basal medium of Murashige and Skoog supplemented with nicotinic acid (0.5 mg/1), and Thiamine (HCl mg/1). The growth regulators 2, 4-dichlorophenoxyacetic acid (2, 4-D), naphthalene acetic acid (NAA), kinetine, lysine and asparagine were found to be required in the induction of callus in Moluccan sau.

50.

Lim, M. T.

1985. Biomass and Biomass Relationship of 3.5-Year-Old Open-Grown *Acacia mangium*. Faculty of Forestry, UPM. Occasional Paper No.5. 15pp.

Language : -
Key Words : biomass, biomass relationship

Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*,

Albizia falcataria,
Hevea brasiliensis

Sites : Sarawak, Malaysia
Year Started : -
Year Completed : -
Notes : -

51.

Mabilangan, Loida C.

1987. Carboxymethyl cellulose from Moluccan sau (*Albizia falcataria* (L.) Fosberg) wood. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : carboxymethyl cellulose, kraft pulping, etherification, pulp bleaching

Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : High alpha pulps were prepared from prehydrolyzed kraft pulps of Moluccan sau (*Albizia falcataria* (L.) Fosberg) prior to carboxymethyl cellulose (CMC) production. The purified dissolving pulp was steeped with predetermined concentration of NaOH to form an alkali cellulose, which was reacted with sodium chloroacetate or monochloroacetic acid to produce CMC. The process was modified by varying the NaOH concentration, the reaction temperature and the etherifying agent to material ratio, to determine the treatment combination which would yield a technically acceptable grade CMC for industrial application. Variations on account of alkali concentration, etherifying agent material ratio, the temperature had significant effect on most properties of CMC studies. The effect of concentration was very strong, accounting for over 23% of the total variance of all properties. Etherifying agent to material ratio has a marked influence on purity and viscosity; temperature generally had the least influence on CMC properties

except on degree of substitution (DS). The physical and chemical properties of the laboratory prepared (experimental) CMC using 30% of NaOH (sodium hydroxide) etherifying agent to material ratio of 1:5:1 at 15 C were found comparable to some of the commercially available imported CMC. The CMC from Moluccan sau under these conditions had a DS, percent purity (assay), pH and degree of polymerization (DP) of 0.36, 56.0% 7.20 and 174.94, respectively. These properties met the standards for commercial CMC. The properties of CMC produced from Moluccan sau indicate suitability in the manufacture of detergent, paper and textile.

52.
Mamit, James

1986. Specific gravity of two reforestation species in Sarawak. Malay. For. 49:72-78.

Language : English
Key Words : reforestation
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia auriculiformis*,
Paruserianthes falcataria
Sites : Sarawak, Malaysia
Year Started : 1985
Year Completed : -
Notes : -

53.
Mansur, Hs., Yahya Fakuara and Soedarmadi

1989. Pengaruh media serbuk gergaji dengan pemberian kotoran ayam terhadap pertumbuhan semai *Acacia mangium* Willd. dan *Albizia falcataria*. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : growth medium and fertilization
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU

Species : *Acacia mangium*,
Albizia falcataria
Sites : -
Year Started : 1989
Year Completed : 1989
Notes : -

54.
Murtianto, Bambang, Kurnia Sofyan and I. G. K. Tapa Darma

1986. Pengaruh lama penyimpanan kayu pulp *Albizia falcataria* Fosberg dan *Ceiba pentandra* Gaertn. Terhadap Rendemen dan Sifat Pulp. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : wood pulp, effect of storage time on pulp properties
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*,
Ceiba pentandra
Sites : -
Year Started : 1989
Year Completed : 1989
Notes : -

55.
Nandy, P.

Development of nursery techniques of some exotic and indigenous forest tree species.

Languages : -
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : OR
Species : *Acacia auriculiformis*,
Albizia procera,
Artocarpus chaplasha
and *A. integrifolia*
Sites : BFRI Nursery,
Chittagong, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

56.

Natawiria, Djatnika

1972. Hama dan penyakit *Albizia falcataria* (L.) Fosberg. RIMBA Indonesia, Vol. XVII; No. 1-2; 1972-1973.

Language : Indonesian
 Key Words : pests and diseases
 Executing Agency : FR
 Funding Agency : FR
 Status : CP
 Species : *Albizia falcataria*
 Sites : -
 Year Started : 1972
 Year Completed : 1972
 Notes : -

57.

Nu'man, Jubaedi, Herman Haeruman and Suwarno Sutarahardja

1986. studi finansial dan pemasaran hasil dari hutan rakyat jeunjing (*Albizia falcataria* (L.) Fosberg) di tiga desa dalam satu alur Bogor, propinsi Jawa Barat. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : financial studies, marketing
 Executing Agency : FFIPB
 Funding Agency : FFIPB
 Status : CU
 Species : *Albizia falcataria*
 Sites : -
 Year Started : 1986
 Year Completed : 1986
 Notes : -

58.

Pablo, Arturo A.

1987. Development of cement-bonded particleboards from industrial tree plantation species, lesser-known species and mixtures of various species including wood wastes. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
 Key Words : wood wastes, cement-

bonded, particleboards, MOR (modulus of rupture)

Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : OR
 Species : *Leucaena leucocephala*, *Gmelina arborea*, *Albizia falcataria*
 Sites : College, Laguna, Philippines

Year Started : 1985
 Year Completed : 1990
 Notes : Five species (mahogany, giant ipil-ipil, kaatoan bangkal, yemane and moluccan sau) were made into 20-mm thick, 250-mm x 250-mm, 1000 kg/m³ density bonded particleboard. Cement-wood ratio 7:30 was used at various chemical accelerators, magnesium chloride, calcium chloride, aluminum sulfate, aluminum hydroxide, aluminum chloride, and calcium chloride. High values of MOR 2.31 to 3.79 MPa were obtained from mahogany, kaatoan bangkal, and giant ipil-ipil with magnesium chloride accelerator. Moluccan sau had a higher value of 5.09 MPa in aluminum sulfate. Yemane has the lowest strength value of only .098 MPa in calcium chloride accelerator.

59.

Peh, T. B. and K. C. Khoo

1984. Timber properties of *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria* and their utilization aspects. The Malaysian Forester, Vol. 47, No. 4:285-303.

Language : English
 Key Words : timber properties and utilization
 Executing Agency : FRK, FRIM
 Funding Agency : FRK, FRIM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria*
 Sites : Malaysia
 Year Started : 1983
 Year Completed : 1983
 Notes : -

60.

Permono, Ripto

1978. Effect of seed size (and spacing) on the germination and growth of Moluccan sau (*Albizia falcataria* (L.) Fosb.) seedlings. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : seed size, germination, moluccan sau
Executing Agency : MS Thesis
Funding Agency : -
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippine
Year Started : 1977
Year Completed : 1978
Notes : Information on the effect of seed size (and spacing) on the germination and growth of Moluccan sau (*Albizia falcataria*) seedling is important to nursery operations. Ordinarily, it is expected that bigger seeds would have higher percentage of germination and produce healthier and bigger seedlings than smaller ones. Narrow, medium and wide seeds were sown directly into pots arranged accordingly to various spacings (5x5 cm, 10x5 cm, 15x5 cm. and 10x10 cm.) at nursery. Data were collected on seed germination, seedling growth, and the soil. This study was conducted as a 3x4 factorial experiment in completely randomized design with 4 replications. The factors were seed size and spacing of planted seeds which consisted of three and four levels, respectively. A complementary study was also done to obtain possible explanation for the effect of different size classes of seeds on germination percentage. The result of the study demonstrated that the widersized seeds had higher germination only if seeds of high quality are used. If shrivelled and other low quality seeds are not excluded, the rate of germination may decrease. Wider seeds produced generally heavier seedlings. This was apparently due to the bigger cotyledon of the wide seeds. Closer spacing (5x5 cm) gave rise to bigger and heavier seedlings than at wider spacing (5 x15 cm and 10x10 cm).

This was apparently due to the higher temperature at wider spacing and possibly, greater backing of nutrients in the potted soils during watering.

61.

Pinol, Agustín A., Monina T. Uriarte and Fermín G. Torres

1982. Growth, yield prediction and economic rotation of *Albizia falcataria* in selected plantations in Mindanao. Terminal Report. Forest Research Institute.

Language : English
Key Words : growth and yield, economic rotation, tree plantation,
Executing Agency : FORI
Funding Agency : FORI
Status : CU
Species : *Albizia falcataria*
Sites : Mindanao, Philippines
Year Started : 1982
Year Completed : 1982
Notes : Three tree volume equations were derived for *Albizia falcataria*. These are for total merchantable tree volume, pulp timber tree volume and saw timber tree volume could be predicted based on diameter at breast height (DBH) and merchantable height at 10 cm. top diameter inside bark (DIB). Yield prediction models for these merchantable class were also derived. Total merchantable volume yield, pulp timber and saw timber volume yield in cubic meter per hectare could be predicted given the age, site index and initial spacing of the *Albizia falcataria* plantations. Economic rotation of *Albizia falcataria* plantation at different merchantable class, site and spacing was determined by net present value (NPV) method at 18% interest rate.

62.

Pollisco, Filiberto S. et. al.

1986. Smallholder tree farming and forestry farming. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : PCARRD
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*,
Albizia falcataria
Sites : College, Laguna,
Philippines
Year Started : -
Year Completed : 1986
Notes : Acceptable volume
prediction models were derived for *Leucaena
leucocephala* and *Albizia falcataria*.
Predictions made were based on
measurements of diameter breast height
(DBH) and merchantable height (MH).
Yield prediction models were also
derived for the two species. *Albizia*, yield
prediction equations were derived from the
total merchantable volume, pulp timber
and sawtimber volume yields for various
ages, site indices and spacing, yield
prediction equations for leucaena as
fuelwood was also derived. Both species can
be regenerated by clear cutting method and
by coppicing. Results show data on volume
of wood charge, charcoaling cycle time,
proximate analysis of the charcoal produced
and charcoal yield for all the ovens. The
productivity of each worker in a charcoaling
module varies with the type of oven.

63.

Pramono, Rekso, Suwarno Sutarahardja,
Endang Suhendang and Komar Sumarna

1987. Studi Pendugaan Kurva Pertumbuhan
Tinggi Tegakan *Albizia falcataria* (L.)
Fosberg. B.Sc. Thesis, Faculty of Forestry,
IPB.

Language : Indonesian
Key Words : height growth curve
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1987
Year Completed : 1987
Notes : -

64.

**Prasetyo, Udi, Ishemat Surianegara and
Hendi Suhendi**

1986. Pendugaan nilai hertabilitas untuk
seleksi massa *Albizia falcataria* (L.) Fosberg
di KPH Purwakarta. B.Sc. Thesis, Faculty of
Forestry, IPB.

Language : Indonesian
Key Words : heritability value
estimation, mass
selection
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

65.

**Prayitno, Adi, Togar L. Tobing and
Paribotro Sutigno**

1989. Pengujian sifat fisis-mekanis papan
blok dengan variasi ukuran lebar bilah inti
dari kayu gubal dan teras jeujung (*Albizia
falcataria* Fosberg). BSc Thesis, Faculty of
Forestry, IPB.

Language : Indonesian
Key Words : wood properties testing
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1989
Year Completed : 1989
Notes : -

66.

**Prihatini, Arifah, Surjono Surjokusumo and
Bedyaman Tambunan**

1985. Studi tentang sifat-sifat fisik dan
mekanik panel laminasi bambu tali
(*Gigantochloa apus* Kurz) dengan kayu
jeunjing (*Albizia falcataria*). BSc Thesis,
Faculty of Forestry, IPB.

Language : Indonesian
Key Words : physical and mechanical properties
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*,
Gigantochloa apus
Sites : -
Year Started : 1985
Year Completed : 1985
Notes : -

67.

Quinones, D. G. and P. L. Alcachupas

1983. Cost in harvesting industrial tree plantation species. FPRDI Journal 12(1 & 2):58-68. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : skidding, landing operation, felling, bucking, hauling
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Leucaena leucocephala*,
Albizia falcataria
Sites : College, Laguna,
 Philippines
Year Started : 1981
Year Completed : 1982
Notes : The practices of the farmers in harvesting moluccan sau (*Albizia falcataria* L. Fosb.) and giant ipil-ipil (*Leucaena leucocephala* Lam. de Wit) were observed and cost of harvesting was evaluated. Analysis of data in harvesting showed that the percent cost distribution per cubic meter for the two species are as follows: felling and bucking, 8.55%; carabao skidding, 34.72%; landing operation, 16.52%; manual loading, 7.48%; hauling, 26.98%; and manual unloading, 5.75%.

68.

Reyes, Manuel H.

1981. Growth and survival of containerized Moluccan sau (*Albizia falcataria* (L.) Fosb.)

seedlings grown in organic containers. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : containerized Moluccan sau, coir dust, rice straw, sugarcane bagasse, sawdust
Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : CU
Species : *Albizia falcataria*
Sites : Baybay, Leyte,
 Philippines

Year Started : 1979

Year Completed : 1980

Notes : This study aims to determine the feasibility of using sugarcane bagasse, rice straw, coconut husk (coir dust) and sawdust as raw materials in the manufacture of seedling containers and the effects of these materials on the growth and survival of Moluccan sau seedlings. In the greenhouse stage, seedlings grown in coir dust container performed better in terms of height, diameter, number of leaves and shoots than those seedlings grown from bagasse, rice straw and sawdust materials. In the field phase, rice straw container-grown seedlings attained the highest growth (height and stem diameter) six months after outplanting. Early biodegradation of the containers and nutrient content present hastened the growth of the seedlings but such effect on growth was not permanent when the containers completely degraded between the fifth and sixth month period. Survival of seedlings was not significant for all treatments during the first to sixth months after planting. Rice straw materials can be manufactured into container with high percentage of survival and growth for raising moluccan sau seedlings due to its porosity, presence of nutrient and early biodegradability. However, almost all of the containerized seedlings have high percentage of survival.

69.

Risyad, Zuhaida, Surjono Surjokusumo, Ch. G. Sarajar

1985. Pengaruh penggunaan beberapa jenis bambu dan beberapa macam perekat terhadap sifat mekanik-lentur laminasi sayatan bambu dengan kayu jeunjing (*Albizia* spp.). BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : elastic-mechanical properties
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia* spp., Bamboo
Sites : -
Year Started : 1984
Year Completed : 1985
Notes : -

70.

Rivera, Merlyn, N.

1983. Marketing and price-structure of *Leucaena* and *Albizia* end-products. Philippine Forest Research Journal 8(1):19-37.

Language : English
Key Words : marketing, price structure, *Albizia* end-products, *Leucaena* end-products, cost and return analysis
Executing Agency : FORI
Funding Agency : FORI
Status : CP
Species : *Leucaena leucocephala*, *Albizia falcataria*
Sites : 12 different areas in Metro Manila, Philippines
Year Started : 1980
Year Completed : 1981
Notes : The study was conducted to assess the existing market distribution, to determine the prevailing prices and to estimate the net profit that farmers derived from *Leucaena* and *Albizia* end-products. The end-products were leafmeal, fuelwood, charcoal, propping materials/poles for *Leucaena* and pulpwood for *Albizia*. Relatively, the market flow of leafmeal was the most complex and the pulpwood the simplest. Variation in prices

was influenced by different factors such as seasons of the year, distance from source, type of locality and the terms of sale, whether the good is delivered to, or picked up by the middlemen, or end-users. The farmers/producers, for all the end-products, obtained a net return which implies that investing money in the production of these end-products will be a profitable venture. Income from *Leucaena* leaves amounted to P28.50/ha/harvest picked-up price and P70.70/ha for delivered price. For fuelwood, net return obtained by the farmers was P3,975/ha for picked-up price and P9,170/ha for delivered price. For charcoal produced and marketed during the dry season, a net return of P8,548/ha for picked-up price and P10,402/ha for delivered price was obtained. During the rainy season, income was P19,957/ha for picked-up price and P30,246/ha for delivered price. Farmers who produced and marketed propping materials/poles obtained an income of P26,687/ha for picked-up price and P38,196/ha for delivered price. The difference of net returns of the *Leucaena* end-product between picked-up price and delivered price was due to differences in the transportation costs and season of the year. *Albizia* tree farmers gained an average net return of P1,887/ha delivered price.

71.

Rocafort, Jesus E. and Senoren

1990. Design and development of doors, windows, and jambs using ITPS. FPRDI-DOST Operations Plan.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Albizia falcataria*
Year Started : 1989
Year Completed : 1990
Notes : Materials for the fabrication of six (6) identical panel door samples and three (3) door jambs were taken from several logs of Moluccan sau (*Albizia falcataria*) collected together with other

species in Surigao del Sur. Three (3) of the door samples, 1,000 mm x 2,100 mm in dimensions, were tested with simulated concentrated loads applied at midspan with reactions at opposite corners to measure twisting while the other three (3) samples were loaded transversely with concentrated loads applied at quarter points. The test results are being evaluated. The door jambs were designed using derived working stresses for the species to determine adequate dimensions.

72.
Saha, S.

Studies on seed dormancy and storage methods for important tree species.

Language : -
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : OR
Species : *Acacia auriculiformis*,
A. mangium,
Albizia procera
Sites : -
Year Started : 1990
Year Completed : 1990
Notes : -

73.
Sahri, Mohd. Hamami, Razali Abdul Kader and Kee Teck Khoon

1989. Gluing properties of wood of three fast-growing plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : gluability of wood,
phenol-resorcinol
formaldehyde, urea
formaldehyde
Executing Agency : UPM
Funding Agency : UPM
Status : CP

Species : *Acacia mangium*,
Gmelina arborea,
Paraserianthes falcataria
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

74.
Salud, Erlinda C.

1979. Extractives of Mollucan sau (*Albizia falcataria* L. Fosb.) I. Benzene Solubles. FORPRIDE Digest 8(3 & 4):20-24.

Language : English
Key Words : benzene extractives,
Mollucan sau,
heartwood, unsaponifiable
components
Executing Agency : FORPRIDECOM
Funding Agency : FORPRIDECOM
Status : CP
Species : *Albizia falcataria*
Sites : College, Laguna,
Philippines
Year Started : 1977
Year Completed : 1977
Notes : The benzene-soluble
extractives from Mollucan sau (*Albizia falcataria* L. Fosb.) have been examined. The amount of benzene extract in the whole tree was in the range 0.69-1.80% of the wood, butt-heartwood having the largest amount. The benzene extractives were fractionated into ethyl-insolubles, unsaponifiables, resin acids and fatty acids. The predominant component was the unsaponifiables.

75.
Semana, Jose A., Vicente B. Lasmarias and Crescencia H. Ballon

1982. Hardboard from Moluccan sau. FORPRIDE Digest 11(3 & 4):20-26.

Language : English
Key Words : hot pressing, defibrator,
sulfate pulp yield,
thickness swelling
Executing Agency : FPRDI
Funding Agency : FPRDI

Status : CP
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : Moluccan sau (*Albizia falcataria* (L.) Fosberg) was readily pulped by an Asplund Defibrator to a yield of 89.7%. The moduli of rupture of the boards produced, ranging from 37.3 to 50.3 MPa met the specifications for standard hardboard and were also superior to those of locally-made commercial hardboard.

76.

Setiadi, Yadi

1985. The response of *Albizia falcataria* (L.) Fosb. to rhizobium inoculation in different soil types. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : Moluccan sau, Luisiana soil, lime level
Executing Agency : MS Thesis
Funding Agency : MS Thesis
Status : CU
Species : *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1985
Year Completed : 1985
Notes : Two studies were conducted to test the effectivity of four Rhizobium isolates on Moluccan sau (*Albizia falcataria*). In Study I, three provenances were inoculated and grown in three different soil types. In Study II, varying urea and lime levels were applied to Luisiana soil to grow the West java (Indonesia) provenance inoculated with the subject isolates: A14 and A18 (Makiling) and ALFA1 and ALFA2 (Mindoro), with a basal application of 90 kg/ha of P₂O₅ and 60 kg/ha of K₂O. Both studies were set up with split-split plot design in CRD and were harvested four months after sowing. To evaluate the responses, height, diameter, total biomass, root/shoot ratio, modulation, N content and N uptake were used as the parameters. The

results showed that in both studies, the inoculated seedlings were generally more vigorous and greener than the uninoculated ones. The ALFA2 isolate performed the best without soil amendments while ALFA1 was the best isolate in Luisiana soil with N fertilization and CaCO₃ application. Consistently, the second-best performing isolate in both studies was A14. The West Java provenance gave significantly higher values in terms of seedling growth than either Palawan or Bislig provenance. Luisiana (sandy clay loam) grow the best seedlings compared to Puting Lupa or Carranglan soil (both clay loam). The combination of the highest level (0.4840 g CaCO₃) and the lowest urea (0.25 g) gave the tallest seedlings.

77.

Sobri, Amin Tri, Ch. G. Sarajar and Bedyaman Tambunan

1988. Penelitian sifat-sifat papan partikel berlapis tiga dari kayu karet dan jeunjing (*Albizia falcataria*). BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : rubber, particle board properties
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*, rubber
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

78.

Suad, Emmanuel Noli B.

1987. Rotary veneer cutting of four fast-growing plantation hardwood species. FPRDI Journal 16(1):86-104.

Language : English
Key Words : knife angle, mosebar compression, rotary cutting, veneer

Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Leucaena leucocephala*,
Gmelina arborea,
Albizia falcataria
Sites : College, Laguna,
Philippines
Year Started : 1984
Year Completed : 1986
Notes : This study dealt with
the rotary cutting of four fast-growing
plantation hardwood species: kaatoan
bangkal (*Anthocephalus chinensis* (Lamk.)
Ri ch. ex. Walp.), giant ipil-ipil (*Leucaena*
leucocephala (Lam.) de Wit), Mollucan sau
(*Albizia falcataria* (L.) Fosb.) and Yemane
(*Gmelina arborea* R. Br.). The effects of
mosebar compression (NC), knife angle
(KA) and veneer thickness (VT) on quality
of veneer produced per specie were
evaluated. The criteria used for evaluation
where thickness uniformity, depth of lathe
checks (tightness) and surface smoothness.
Veneer thickness was found highly
significant in relation to the tightness and
smoothness of the four plantation species.

79.

**Suarjaya, Made, Sadan Widarmana and Ch.
G. Sarajar**

1988. Pengaruh posisi kayu batang pohon
Albizia falcataria L. Fosberg terhadap sifat
fisis mekanis papan partikel. BSc Thesis,
Faculty of Forestry, IPB.

Language : Indonesian
Key Words : effect of wood position,
physical and mechanical
properties

Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1988
Year Completed : 1988
Notes : -

80.

**Sufri, Herry Friwani, Kurnia Sofyan and
Suminar Achmadi**

1986. Pemasakan dengan pelarut organik
dan pengaruhnya terhadap sifat pulp *Albizia*
falcataria. BSc Thesis, Faculty of Forestry,
IPB.

Language : Indonesian
Key Words : pulp properties,
organic solvent

Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1985
Year Completed : 1986
Notes : -

81.

**Sulaeman, Bugi, Rahardjo S. Suparto and
Hariadi**

1986. Produktivitas gergaji rantai untuk
pemotongan kayu, tusam dab jati pada
keadaan basah dan kering. BSc Thesis,
Faculty of Forestry, IPB.

Language : Indonesian
Key Words : Teak, chainsaw
productivity
Executing Agency : FF
Funding Agency : FF
Status : CU
Species : *Albizia falcataria*,
Pinus merkusii, teak

Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

82.

Sulaiman, Rahim B. and Anuar B. Mohamad

1987. Promoting the concept of agroforestry
to small farmers in Sabah - a preliminary
experience. National MPTS Seminar. FRIM,
Kepong.

Language : English

Key Words : agroforestry model, community forestry
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Pinus caribaea*, *Paraserianthes falcataria*, *Glinicidia* spp., *Anthocephalus chinensis*, *Durio* sp., *Shorea macrophylla*, *Dyera costulata*, *Cinnamomum* spp.
Sites : Sungai Darling, Kg. Menusoh, Sabah, Malaysia
Year Started : 1983
Year Completed : 1987
Notes : -

83.

Tamolang, Felix B and Jesus E. Rocafort

1987. Physio-mechanical properties and possible uses of eleven plantation-grown timber species in the Philippines. *FPRDI Journal* 16(1):75-85.

Language : English
Key Words : volumetric shrinkage, bending, shear, compression, hardness, toughness
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Eucalyptus deglupta*, *Leucaena leucocephala* (Lam.) *Albizia falcataria*, *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : This study presents the indicative average physical and mechanical properties of 11 plantation-grown timber species in the Philippines. The properties were determined from tests on small clear specimens of timber. Properties studied include relative density, shrinkage, bending, shear-parallel-to-grain, compression-

parallel-to-grain and compression-perpendicular-to-grain, hardness and toughness. Based on the classification of the species in accordance with the five physico-mechanical property groupings devised by FPRDI, (a) Giant ipil-ipil, Benguet pine, big leafed mahogany, yemane and teak are recommended for medium construction purposes; (b) Para-rubber for moderately light construction; and (c) Kaatoan bangkal, moluccan sau, gubas, bagras and lumbang for light construction purposes where strength and durability are not critical requirements. The values presented only apply to defect-free materials and care should be taken when they are used for structural design purposes.

84.

Tan, Kee Chong

1984. The response of *Paraserianthes falcataria* to row thinning. *The Malaysian Forester*, Vo!. 47, No. 4:322-334.

Language : English
Key Words : row thinning
Executing Agency : FRK
Funding Agency : FRK
Status : CP
Species : *Paraserianthes falcataria*
Sites : -
Year Started : 1983
Year Completed : 1983
Notes : -

85.

Tan, K. C. and N. Jones

1982. Fast-growing hardwood plantations on logged-over forest sites in Sabah. *Malaysian Forestry* 45(4).

Language : English
Key Words : forest policy, forestation programmes, compensatory plantation, objectives, yield
Executing Agency : FDS
Funding Agency : FDS
Status : CP

Species : *Albizia falcataria*,
Eucalyptus deglupta,
Gmelina arborea
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

86.

Ting, Sie Ping

1986. Site evaluation for reforestation and rehabilitation project in Sarawak. Ninth Malay. For. Conference, Kuching, Sarawak. October 1986.

Language : English
Key Words : planning, field survey,
growth characteristics,
species-site matching

Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Gmelina arborea, *Durio*
zibethinus and many
others

Sites : Sarawak, Malaysia
Year Started : 1984
Year Completed : -
Notes : -

87.

Tricliptono, Joko, Yahya Fakuara and Edje Djambhuri

1986. Variasi sifat kuantita dan kualita benih *Albizia falcataria* (L.) Fosberg pada beberapa asal sumber benih. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : seed provenance
Executing Agency : FFIPB
Funding Agency : FFIPB
Status : CU
Species : *Albizia falcataria*
Sites : -
Year Started : 1986
Year Completed : 1986
Notes : -

88.

Why, Kong Hoi

1987. Fuelwood trees for rural industries. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : fuelwood, smoking of
rubber sheets, tobacco
curing, brick making

Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Hevea brasiliensis*,
Rhizophora apiculata,
R. mucronata,
Melaleuca cajuputi,
Vitex sp., *Albizia*
falcataria, *Gmelina*
arborea, *Acacia*
mangium, *Eucalyptus*
deglupta

Sites : Kepong, Malaysia
Year Started : 1985
Year Completed : -
Notes : -

89.

Yakub, M. and D. K. Bhattacharjee

1983. Strength properties of silkrooi and telsur. Bulletin No. 6, Timber Physics Series, Forest Research Institute, Chittagong, pp. 10.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Albizia procera*,
Hopea odorata

Sites : -
Year Started : 1981
Year Completed : 1982
Notes : There is no need to give
information regarding site and altitude
since this is a laboratory work.

90.

Yap, S. K. and S. M. Wong

1983. Seed biology of *Acacia mangium*,

Albizia falcataria, *Eucalyptus* spp. *Gmelina arborea*, *Maesopsis eminii*, *Pinus caribaea* and *Tectona grandis*. Malaysian Forestry.

Language : -
 Key Words : silviculture, seed morphology, seed extraction, germination testing
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*, *Albizia falcataria*, *Eucalyptus* spp., *Gmelina arborea*, *Tectona grandis*
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

91.

Yong, C. T.

1984. Compensatory plantations in peninsular Malaysia. Proceedings of the Seminar on Forest Platanion Development in Malaysia.

Language : -
 Key Words : forest policy, implementation strategy, financing, silviculture
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*, *Albizia falcataria*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

92.

Yulian, Surjono Surjokusumo, Suchyo and Ridwan A. Pasaribu

1988. Sifat-sifat papan semen partikel jeunjing (*Albizia falcataria*) pada berbagai tingkat komposisi semen dan ukuran

partikel: BSc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : particle cement board properties
 Executing Agency : FF
 Funding Agency : FF
 Status : CU
 Species : *Albizia falcataria*
 Sites : -
 Year Started : 1988
 Year Completed : 1988
 Notes : -

1.

Boontawee, Boonchoob, Bunyarit Puriyakorn, Surachai Pransin, Koetkong Pitpricha, Somboon Kiratiprayoon and Thiti Wisarat

1988. Above Ground Biomass of Five Fast Growing Species at Five-Year-Old in the Different Spacing Plantation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
Keywords : 5-year-old, biomass, spacing
Executing Agency : RFD
Funding Agency : RFD
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Azadirachta indica*, *Cassia siamea*, *Leucaena leucocephala*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai, Amphoe Muang, Changwat Ratchaburi, Amphoe Chum Phae, Changwat Khon Kaen, Thailand (520m).
Year Started : 1981
Year Completed : 1986
Notes : -

2.

Bunyavajchewin, Sarayudh and Bunyarit Puriyakorn

1984. Net Primary Productivity of Five Tree Species and Change in Soil Properties after 30 Months of Growth. Proceedings of the Forestry Conference, Royal Forest Department, 2:148-165.

Language : Thai
Keywords : biomass, soil properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus*

camaldulensis,
Leucaena leucocephala,
Cassia siamea,
Azadirachta indica

Sites : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
Year Started : 1982
Year Completed : 1983
Notes : Maximum primary productivity was recorded for *E. camaldulensis* in comparison to the remaining 4 species. Major soil nutrients were higher than the adjacent area 30 months after tree plantings.

3.

Chalchanasuwat, Ornanong, Bandit Kobmu, Prapan Pukruttayakamee and Pisa Wasuwanich

1988. Seed Quality Testing by X-Radiography. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 2.

Language : Thai
Keywords : seed, X-radiography
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Azadirachta indica*, *Melia azedarach*
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : -

4.

Chana Phiwiuang

1986. Root cutting of *Azadirachta indica* with different hormone IBA. Silvicultural Research Bulletin. Royal Forest Department. 2:505-517.

Language : Thai
Keywords : root cutting, hormone
Executing Agency : RFD
Funding Agency : -
Status : CP

Species : *Azadirachta indica*
 Sites : Amphoe Muang,
 Changwat Saraburi,
 Thailand (45m)
 Year Started : 1984
 Year Completed : 1984
 Notes : The IBA concentration
 of 3,000 ppm. gave the highest amount of
 rooting, followed by 4,000, 2,000 and 5,000
 ppm.

5.
 Chawewan Huthacharoen

1988. Neem-insecticidal usage in Thailand.
 Melia and Azadirachta Research Series 8.

Language : English
 Keywords : varieties, insecticidal
 properties
 Executing Agency : RFD
 Funding Agency : F/FRED
 Status : CP
 Species : *Azadirachta indica*
 Sites : Thailand
 Year Started : 1988
 Year Completed : 1988
 Notes : Neem, known as "sadao"
 in Thai, was widely recognized to possess
 insecticidal properties in the leaf and seed.

6.
 Chirayut Rattanaphan

1986. Survival and growth of seedlings of
Azadirachta indica A. Juss. in various potting
 media. Silvicultural Research Bulletin. Royal
 Forest Department. 2:501-504.

Language : Thai
 Keywords : potting media, survival,
 growth
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Azadirachta indica*
 Sites : Changwat Phetchaburi,
 Thailand (40-45m)
 Year Started : 1983
 Year Completed : 1983
 Notes : Four types of potting
 media were included. The results showed

that loamy soil was found to be the best in
 comparison to loamy soil:clay of 4:1, loamy
 soil:clay of 2:1 and clay:leaf litter of 5:1
 ratios.

7.
 Luangjame, Jesada and Ladda Bunbhakdee

1984. Salt Tolerance of Selected Tree
 Species. Proceedings of the Forestry
 Conference, Royal Forest Department,
 2:55-58.

Language : Thai
 Keywords : -
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala,
Azadirachta indica

Sites : Amphoe Muang,
 Changwat Khon Kaen,
 Thailand (174m)

Year Started : 1984
 Year Completed : 1984
 Notes : This greenhouse study
 revealed that *E. camaldulensis* was ranked
 the top in salt tolerance, but NaCl
 concentration should not be greater than
 2.0%.

8.
 Sahunalu, Pongsak, Bunyarit Puriyakorn
 and Prasert Tiyanon

1987. Yield-Density Effect of Sixteen
 Month-old *Azadirachta indica* A. Juss. Var.
Siamensis Valetton Plantation. Proceedings
 of the Forestry Conference, Royal Forest
 Department.

Language : Thai
 Keywords : yield, density, sixteen-
 month-old, biomass,
 volume
 Executing Agency : KUFF/RFD
 Funding Agency : -
 Status : CP
 Species : *Azadirachta indica*
 Sites : Amphoe Muang,

Changwat Ratchaburi,
Thailand (35m)

Year Started : 1983
Year Completed : 1985
Notes : Minimum productivity per tree was recorded from the 625-tree/ha plot, while the maximum per unit area was gained from the 10,000-tree/ha plot.

9.

Siripan Chamnankit

1981. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section, 1:66-70.

Language : Thai
Keywords : seed sowing, potting mixture
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Azadirachta indica*
Sites : Amphoe Ngao, Changwat Lampang, Thailand (200-2,000m)

Year Started : 1980
Year Completed : 1980
Notes : -

10.

Suree Bhumibhamon

1987. Melia and Azadirachta in the Tropics: Basic Information. Melia and Azadirachta Research Series No. 1.

Language : English
Keywords : morphology
Executing Agency : KUFF
Funding Agency : F/FRED
Status : CP
Species : *Melia azedarach*, *Azadirachta indica*
Sites : Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand

Year Started : 1987
Year Completed : 1987
Notes : *M. azedarach* and

A. indica are multipurpose trees often deliberately grown at one site and time to produce more than one product, e.g., timber, fuelwood, extractives, medicines, food, fodder and service attributes concerning the environment.

11.

Visuthidepakul, Suthi and Pirom Hoatrakul

1988. The properties and utilization of fast growing trees. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 203-219.

Language : Thai
Keywords : physical properties, mechanical properties, utilization
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Cassia siamea*, *Azadirachta indica*
Sites : Changwat Ratchaburi, Thailand (35m)

Year Started : 1988
Year Completed : 1988
Notes : Studied color (heartwood), density, texture, grain, shrinkage, recovery rate, percentage of sapwood and heartwood, defect in sawn timbers and suitability of utilization in construction and woodworking.

1.

Amata-archachai, Peerasak, Prasert
Potipak and Kowit Sombun

1982. Effect of Different Hormones, Indoles Butyric Acid, Indole Acetic Acid and Napthalene Acetic Acid on Rooting of *Casuarina junghuhniana* Miq. Silvicultural Research Bulletin, Royal Forest Department. 62-77.

Language : Thai
Key Words : hormones, rooting
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*
Sites : Amphoe Muang,
Changwat saraburi,
Thailand (45m)
Year Started : 1978
Year Completed : 1982
Notes : Growth hormones
enhanced rooting of *C. junghuhniana*.
Rooting using hormones was found to be
higher than treatments without hormones.

2.

Amata-archachai, Peerasak, Prasert
Potipak and Kowit Sombun

1982. Study on the Suitable Size of *Casuarina junghuhniana* Miq. Branches for Cutting Propagation. Silvicultural Research Bulletin. Royal Forest Department. 18-31.

Language : Thai
Key Words : cutting propagation
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*
Sites : Amphoe Muang,
Changwat Saraburi,
Thailand (45m)
Year Start : 1980
Year Completed : 1982
Notes : The experiment had
four different sizes and characteristics of
branches, the whole green, the brown, the
brown with green yellow strip and the one
that is normally used for air layering.

3.

Ang, L. H.

1987. Some potential tree species for reclamation of tin tailings. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia auriculiformis*,
Casuarina equisetifolia,
Melaleuca leucadendron,
Albizia falcataria
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

4.

Ang, L. H.

1987. Some potential tree species for reclamation of tin tailings. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
Key Words : sand and slime tailings,
growth performance
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Melaleuca leucadendron*,
Acacia auriculiformis,
Pinus caribaea,
Casuarina equisetifolia
Sites : Kepong, Malaysia
Year Started : 1986
Year Completed : -
Notes : -

5.

Ang, L. H. and Yussof Muda

1989. Some timber tree species for afforestation of raised sand beaches (Tanah Bris). Regional Symposium on Recent Developments in Tree Plantation of

Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : growth performance, afforestation, soil improvement
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Pinus oocarpa*,
Acacia mangium,
A. auriculiformis,
Araucaria cunninghamii,
Casuarina equisetifolia
Sites : Kelantan, Malaysia
Year Started : 1964
Year Completed : -
Notes : -

6.

Bumatay, Ernesto C.

1978. Effects of fertilization on the growth and survival of Agoho (*Casuarina equisetifolia* Forst.) and Giant ipil-ipil Hawaiian variety *Leucaena leucocephala* (Lam.) de Wit seedlings outplanted in a grassland. Master of Science Thesis. University of the Philippines in Los Banos, College, Laguna, Philippines.

Language : English
Key Words : fertilization, Ipil-ipil, dilution effects
Executing Agency : MS Thesis
Funding Agency : SEARCA
Status : CU
Species : *Leucaena leucocephala* (Lam.) de Wit,
Casuarina equisetifolia Forst.
Sites : Calamba, Laguna, Philippines (450 meters)
Year Started : 1977
Year Completed : 1978
Notes : The effects of fertilization (N0P0, N0P1, N0P2, N1P0, N1P1, N1P2, N2P0, N2P1 and N2P2) on the growth and survival of agoho and giant ipil-ipil seedlings outplanted in a grassland were studied during a six-month period. In

addition, some soil properties, climatic variables and their inter-relationships were also studied. Plant nutrient content and uptakes were determined six months (at harvest) after planting. Survival of agoho seedlings during the first month was significantly higher than that of giant ipil-ipil seedlings. Survival was not significant, however, between the two species at harvest. Survival was not affected by fertilizer treatments. Height growth of agoho seedlings was significantly higher than that of giant ipil-ipil seedlings during the first, second, fourth and sixth month. At harvest, height growth of agoho seedlings averaged 44.16 cm as compared to 14.81 cm for giant ipil-ipil seedlings. Height growth was significantly increased by NP fertilization treatments during the first month. N2P1 treatment gave the highest height growth of both seedlings (17.17cm) as compared to N0P0 treatment (8.53cm). During the second, fourth and sixth month, however, N1P2 treatment gave the highest height growth. Diameter growth of giant ipil-ipil seedlings was significantly larger than that of agoho seedlings during the first and second month. Diameter growth response was significantly increased by NP fertilizer levels during the first and sixth month with N2P0 treatment giving the largest diameter growth.

7.

Chaiklom, Damsong

1978. The Forest Pest Controls. Proceedings of the Forestry Conference. Royal Forest Department, Forest Biology Section. 33-44.

Language : Thai
Key Words : fungi, insect, nematodes
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Melia azedarach,
Casuarina junghuhniana
Sites : Thailand
Year Started : 1977
Year Completed : 1977
Notes : Various methods of pest controls were reviewed including

chemical, biological, silvicultural and legal controls.

8.

Chaloempong, Aniwat

1980. Dark-Coral-Like Ectomycorrhizal *Thelephora remarioides* Associated Symbiotically with *Casuarina equisetifolia* Grown in Thailand. Proceedings of the Forestry Conference. Royal Forest Department, Forest Biology.

Language : Thai
 Key Words : mycorrhizal growth, biological characteristics
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina equisetifolia*
 Sites : Amphoe Sikao, Changwat Trang, Thailand (25m)
 Year Started : 1980
 Year Completed : 1980
 Notes : *Thelephora remarioides* could stimulate growth rate of *C. equisetifolia*. By absorption water, nutrient and protect disease to root.

9.

Cholprasert, Thawil

1978. Green Wood Preservation of *Casuarina junghuhniana*. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section. 42-46.

Language : Thai
 Key Words : wood preservation
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina junghuhniana*
 Sites : Thailand
 Year Started : 1978
 Year Completed : 1978
 Notes : Thirty percent concentration of boric mixed with borax was found to be the most suitable concentration

percentage for preserving *C. junghuhniana* green wood.

10.

Chomchan, Arun and Suthi Visuthidhepkul

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section, 335-354.

Language : Thai
 Key Words : physical properties, mechanical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*, *Casuarina equisetifolia*, *C. junghuhniana*
 Sites : Changwat Prachuap Khiri Khan, Nakhon Ratchasima, Songkhla, Khon Kaen, Chaiphaphum, Ratchaburi, Nakhon Si Thammarat, Si Sa Ket, Thailand (130-500m)
 Year Started : 1981
 Year Complete : 1981
 Notes : -

11.

Chomchan, Arun and Winai Panyathanya

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section, 213-228.

Language : Thai
 Key Words : fast-growing species, density, ash content, calorific value, gross heat content, heat value
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Casuarina junghuhniana*,

Acacia auriculiformis,
Leucaena leucocephala,
A. indica, *T. siamensis*,
B. arundinacea

Sites : Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

12.
Chomchan, Arun, Suthi Visuthidhepakul
and Pirom Hoatakul

1985. Properties and Utilization of
 Fast-Growing Trees. Proceedings of the
 Forestry Conference. Royal Forest
 Department. 2:298-329.

Language : Thai
Key Words : mechanical properties,
 phys
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Acacia auriculiformis,
Casuarina junghuhniana,
C. equisetifolia,
Melia azedarach,
Eucalyptus camaldulensis

Sites : Amphoe Sanam Chai
 Khet, Changwat
 Chachoengsao, Amphoe
 Khon San, Changwat
 Chaiyaphum, Amphoe
 Pak Chong,
 Changwat Nakhon
 Ratchasima,

Year Started : 1985
Year Completed : 1985
Notes : -

13.
Chomchan, Arun, Winai panyathanya,
Thongtham Chaikwang, Pramuk
Chichakorn and Arkom Wetsupasuk

1981. Proceedings of the Forestry
 Conference. Royal Forest Department.
 Forest Product Section 229-254.

Language : Thai

Key Words : fast-growing species
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Casuarina junghuhniana,
C. equisetifolia,
Leucaena leucocephala

Sites : Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

14.
Dhepsamrithporn, G.

1983. Seedling Growth and Water used to
 Four Species from Different Distribution
 Ranges as Related to Alluvial Soil Moisture
 Conditions. Thesis Abstract. Master of
 Science in Forestry. 108-110, 212.

Language : English
Key Words : seedling, growth, water
 consumption, biomass
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Casuarina equisetifolia*
Sites : Thailand
Year Started : 1982
Year Completed : 1982
Notes : -

15.
Hutacharoen, Chaweewan

1983. The Third Seminar on Silvicultural
 Forestry for Rural Community. Faculty of
 Forestry, Kasetsart University, Bangkok,
 Thailand.

Language : Thai
Key Words : fungi, insect, plantation
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus*
camaldulensis,
Acacia auriculiformis,

Casuarina equisetifolia,
C. junghuhniana

Sites : Thailand
Year Started : 1983
Year Completed : 1983
Notes : -

16.

Jamroenprucksas, Monthon and Chana
Phlewuang

1986. The Determination of Equation for
Estimating Production of Some Forest Tree
Species. Silvicultural Research Bulletin.
Royal Forest Department. 1:250-286.

Language : Thai
Key Words : equation, production
yield table
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*,
Eucalyptus camaldulensis,
Leucaena leucocephala
Sites : Amphoe Muang,
Changwat Saraburi,
Thailand
Year Started : 1984
Year Completed : 1984
Notes : -

17.

Jiraungkornkul, Arunee

1982. Brown Rot Natural Durability of Wood
to Brown Rot Fungi. Proceedings of the
Forestry Conference. Royal Forest
Department. Forest Product Section 12-21.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*,
Acacia auriculiformis
Sites : Thailand
Year Started : 1983
Year Completed : 1983
Notes : Calocera fungi would
attack the wood studied and resulted in

increased moisture content and decreased
wood weight.

18.

Jiraungkornkul, Arunee

1986. The Comparative Study of Wood
Destruction by the Gloeophyllum Fungi.
Proceedings of the Forestry Conference,
Royal Forest Department, Forest Product
Section 2:297-306.

Language : Thai
Key Words : fungi, destroy
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*,
Acacia auriculiformis
Sites : Thailand
Year Started : 1986
Year Completed : 1986
Notes : *A. auriculiformis* was
highly tolerant to *Gloeophyllum sepiarium*
and *G. striatum* while *C. junghuhniana* was
not tolerant to *G. sepiarium* but moderately
tolerant to *G. striatum*.

19.

Mohammad, Adnan

1986. MPTS: an urban forestry perspective.
Proc. National MPTS. Kepong, Malaysia.

Language : -
Key Words : -
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia auriculiformis*,
Gliricidia sp., *Casuarina*
sp., *Leucaena* sp.
Sites : Kepong, Malaysia
Year Started : 1986
Year Completed : -
Notes : -

20.

Namprasert, Pensri and Arnnop
Abhijatabutr

1983. Kraft Pulping of *Casuarina junghuhniana* Miq. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section. 32-45.

Language : Thai
 Key Words : pulp properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina junghuhniana*
 Sites : Thailand
 Year Started : 1983
 Year Completed : 1983
 Notes : In order to get high yield and low lignin content of kraft pulp from *C. junghuhniana*, H-factor value of 2,300 together with 17% active alkali were recommended.

21.

Ngah, Mohamad Lokmal B. HJ.

1987. Selection of fuelwood crops. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987, 15pp.

Language : English
 Key Words : fuelwood plantation, Selection criteria
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
A. auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

22.

Ngah, Mohamad Lokmal B. HJ.

1987. Selection of fuelwood crops. National MPTS Seminar. FRIM, Kepong.

Language : English
 Key Words : selection criteria,
 fuelwood
 Executing Agency : FRIM

Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
A. auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia
 Sites : Kepong, Malaysia
 Year Started : 1987
 Year Completed : -
 Notes : -

23.

Pattanaprapapan, Somsak, Charal Thongstit and Worakit Sunthonbura

1987. Hardboard from Mixed *Dipterocarpus* sp. with other Deciduous Hardwoods. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 161-173.

Language : Thai
 Key Words : hardboard, mechanical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*, *Melia azedarach*, *Casuarina junghuhniana*
 Sites : Thailand
 Year Started : 1987
 Year Completed : 1987
 Notes : Objective: Selected and developed suitability of using mixed *Dipterocarpus* sp. with other deciduous hardwoods in the manufacture of hardboard.

24.

Potipak, Prasert

1983. Experiment on Tree Planting with Agricultural Crops. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 105-112.

Language : Thai
 Key Words : agroforestry
 Executing Agency : RFD
 Funding Agency : -

Status : CP
Species : *Leucaena leucocephala*,
Melia azedarach,
Eucalyptus
camaldulensis,
Azadirachta indica,
Casuarina junghuhniana
Sites : Amphoe Muang,
Changwat Saraburi,
Thailand (45m)
Year Started : 1983
Year Completed : 1983
Notes : Forest trees planted in
agroforestry systems grew faster than those
planted in non-agroforestry systems. *H.*
sabdariffa is popularly known as "Krajiap".

25.
Ratthakhet, Pagarat

1989. Role of On-Farm Planted
Fast-Growing Trees in Supporting the Green
Northeast Project. Proceedings of the
Forestry Conference. Royal Forest
Department. Silvicultural Section 1:17-29.

Language : Thai
Key Words : fast-growing trees,
agroforestry, Northeast
Executing Agency : KKU
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Casuarina junghuhniana,
Leucaena leucocephala,
Bamboo sp.
Sites : Northeastern Thailand
Year Started : 1984
Year Completed : 1989
Notes : Fast-growing trees are
suitable to be grown on farm land because
of their marketability, rapid growth and low
maintenance requirements.

26.
Sangkul, Sutatip

1987. The Virulence of Wood Destroying
Fungi (Basidiomycetes) on some Hardwoods.
Proceedings of the Forestry Conference.
Royal Forest Department. Forest Product
Section, 63-74.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Casuarina junghuhniana
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : *A. auriculiformis* and
E. camaldulensis were relatively durable to
five wood destroying fungi (*Pynoporous*
sanguineus, *Lentinus* spp., *Coriolus* sp.,
Daldenia concentrica and *Trametes lactinae*)
in comparison to *C. junghuhniana*.

27.
Sangkul, Sutatip and Arunee
Jiraungkornkul

1983. The Comparative on the Variety and
Violence of Fungal in this Case Brown-Rot
and White-Rot. Proceedings of the Forestry
Conference, Royal Forest Department,
Forest Biology Section, 168-178.

Language : Thai
Key Words : variety, violence,
destroy, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*
Sites : Thailand
Year Started : 1985
Year Completed : 1985
Notes : Fungi: Brown rot was
Gloeophyllum saepiarium and *Calocera* sp.
White rot was *Coriolus* sp. and *Ishnoderma*
sp.

28.
Santisuk, Thawatchai

1978. Pioneer Species: An Observation on
Natural Regeneration on Degraded Lands.
Proceedings of the Forestry Conference.
Royal Forest Department, Forest Biology
Section. 14-29.

Language : Thai
Key Words : pioneer species, natural regeneration, degraded land
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*, *Casuarina junghuhniana*, *Casuarina equisetifolia*
Sites : Thailand
Year Started : 1977
Year Completed : 1977
Notes : *M. azedarach* and *C. junghuhniana* were found to be the pioneer species both in the lowland and highland, while *C. equisetifolia* was an outstanding pioneer on degraded lands.

29.

Sathapornpong, Prasart

1980. Commercial Value of *Casuarina equisetifolia* Planted at Prachuap Khiri Kan Province. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 2:147-155.

Language : Thai
Key Words : cost and benefit
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina equisetifolia*
Sites : Amphoe Thap Sakae, Changwat Prachuap Khiri Khan, Thailand (25m)
Year Started : 1980
Year Completed : 1980
Notes : Economic aspect of *C. equisetifolia* was estimated for future.

30.

Suthapornpong, Prasert

1981. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 1:16-22.

Language : Thai

Key Words : -
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Casuarina equisetifolia*
Sites : Amphoe Thap Sakae, Changwat Prachuap Khiri Khan, Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

31.

Tuammali, Thaveep and Wuthipol Hoamuangkaew

1987. Economic of *Casuarina junghuhniana* plantation in Changwat Chachoensao. Thai Journal of Forestry 6(2)134-145.

Language : Thai
Key Words : economics, plantation
Executing Agency : RFD/KUFF
Funding Agency : -
Status : CP
Species : *Casuarina junghuhniana*
Sites : Changwat Chachoengsao, Thailand (400-700m)
Year Started : 1987
Year Completed : 1987
Notes : Net present values and benefit/cost ratio were at the maximum of all the given interest rates (9, 11, 13 and 15%) in the 6-year-old plantation. The internal rate of return was 59.42%

32.

Veenia, Teera, Supasri Apinantham and Arunothai Wongsiri

1988. The Durability of Treated Timber. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 89-119.

Language : Thai
Key Words : durability, destroy, termites, fungi, chemical method
Executing Agency : RFD
Funding Agency : -

Status : CP
Species : *Casuarina junghuhniana*
Sites : Amphoe Muang,
Changwat Trang,
Thailand (40m)
Year Started : 1984
Year Completed : 1988
Notes : It was found that
durability of *C. junghuhniana* treated timber
was about 3-5 times longer than untreated,
depending on concentration and net
retention.

1.

Abang Abdul Hamid

1982. Insect pests of plantation species in Sarawak. Proceeding of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : English
Key Words : defoliators, *Helopeltis*, *Penticoedes*
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*, *Eucalyptus deglupta*
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : 1982
Notes : -

2.

Agpaoa, Alfredo C.

1989. Survival performance of different types of outplanted planting stock of *Eucalyptus camaldulensis* seedlings. DENR-CAR Technical Bulletin 1(1):23-28.

Language : English
Key Words : survival, stumps, bareroot, potted seedlings,
Executing Agency : ERDS
Funding Agency : DENR-CAR
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Loakan, Baguio City, Philippines
Year Started : 1982
Year Completed : 1983
Notes : Planting materials of different types of *Eucalyptus camaldulensis* seedlings (stump, bare-root and potted) were planted in July 1982. Their survival performance was taken every month from outplanting. After the dry season of May 1983, survival assessment was completed and the data gathered were analyzed. The mean survival of stump, bare-root and potted seedlings were 38, 40 and 42%, respectively. Differences in survival were not significant.

The low survival of the different types of seedlings was apparently caused by prolonged dryness of soil in 1983.

3.

Ahmad, Darus B. HJ.

1983. Nursery techniques for *Gmelina arborea*, *Acacia mangium*, *Albizia falcataria* and *Eucalyptus* species at the Nursery Kepong. FRI Report No. 36.

Language : -
Key Words : silviculture, nursery techniques
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Gmelina arborea*, *Albizia falcataria*, *Eucalyptus* sp.
Sites : Kepong, Malaysia
Year Started : -
Year Completed : -
Notes : -

4.

Ahmed, Maruf, Kallim Uddin, Md. Shahid Ullah, M. Z. Abedin, A. S. M. Mahub and H. Rahman

Feasibility study of different agroforestry modules in the homestead of flat barind area and its interaction with existing farming system.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Leucaena leucocephala*, *Artocarpus integrifolia*, *Mangifera indica*, *Eucalyptus camaldulensis*
Sites : F.S.R. site, Narhatta, Bogra, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

5.

Akkarat, Sakda and Pusit Prommanop

1986. Effect of location and mulching on the growth of *Eucalyptus* spp. in Udonthani Forest.

Language : Thai
 Key Words : -
 Executing Agency : RFD
 Funding Agency : -
 Status : CU
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Phu Kradung, Changwat Loei, Thailand (2,000m)
 Year Started : 1985
 Year Completed : 1985
 Notes : -

6.

Alcachupas, Raymundo C. and Francisco Lapitan

1988. Production of lumber from small diameter logs by saw-dry-up (SDR) method. FPRI Annual Report.

Language : English
 Key Words : SDR (saw dry rip), crook, twist, split, warps
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CU
 Species : *Eucalyptus deglupta*, *Gmelina arborea*, *Albizia falcataria*
 Sites : College, Laguna, Philippines
 Year Started : 1986
 Year Completed : 1987
 Notes : The lumber yield and quality of small diameter logs in relation to conversion method was investigated. Five plantation species were studied: Benguet pine (*Pinus kesiya* Royle ex Gordon), Moluccan sau (*Albizia falcataria* L. Back.), Gmelina (*Gmelina arborea* Roxb.), gubas (*Endospermum peltatum* Merr.) and Bagras (*Eucalyptus deglupta* Blume). The log samples for each species were processed by saw-dry-up (SDR) and conventional

sawing system. Results indicated superiority of the SDR over the conventional system in minimizing drying of growths tressed, lumber defects such as split, cup, bow, crook and twist for all species. Based on the total lumber output per specie, 0-18% exhibited negligible degrees of warp in the SDR, while more than 50% in the conventional system developed serious warps, especially in Moluccan sau. The SDR system significantly increased the final lumber recovery of Benguet pine and Bagras by 1% and 4%, respectively. However, this finding was reversed in favor of the conventional method for Moluccan sau, Gmelina and gubas, perhaps due to the interaction of other factors involved in the processing operation for these three species. These included differences of sawing equipment used and high variation of log input characteristics.

7.

Alonzo, Dominador and Alda Valmonte

1990. Influence of age and other conditions of growth on some properties of ITPS. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines

Language : English
 Key Words : -
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : OR
 Species : *Acacia mangium*, *Eucalyptus deglupta*, *Hevea brasiliensis*
 Sites : -
 Year Started : 1990
 Year Completed : -
 Notes : By the end of the year, the specific gravity, fiber dimensions and some chemical composition analysis of at least one plantation-grown species, e.g. *Acacia mangium*, *Eucalyptus deglupta* or *Hevea brasiliensis*, would have been determined.

8.

Amir Husni B. Mohd. Shariff

1982. Soil survey for timber plantations in

Malaysia. Proceedings of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : soil surveys, survey methods, site-species matching
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Finus caribaea*, *Eucalyptus deglupta*, *Gmelina arborea*, *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

9.

Anonymous.

1988. Pengamatan pencegahan hama dan penyakit tanaman *Acacia mangium*, *Swietenia macrophylla*, *Schima walichii* dan *Eucalyptus deglupta*. Departamen Kehutanan, Dirjen Reboisasi dan Rehabilitasi Lahan. Maret.

Language : Indonesian
Key Words : pest and disease prevention
Executing Agency : DJRRL - Directorate of Forestry, Reforestation and Land Rehabilitation
Funding Agency : DJRRL
Status : CP
Species : *Acacia mangium*, *Swietenia macrophylla*, *Schima walichii*, *Eucalyptus deglupta*
Sites : Indonesia
Year Started : 1987
Year Completed : 1988
Notes : -

10.

Becker, E. S.

1987. Evaluation of samples of *Acacia*

mangium, *Eucalyptus deglupta* and *Gmelina arborea* for kraft pulping, bleaching and paper strength properties. Report to North Borneo Timber Bhd. Econotech Service Ltd.

Language : English
Key Words : pulping, bleaching, strength properties
Executing Agency : NBTB
Funding Agency : NBTB
Status : CP
Species : *Eucalyptus deglupta*, *Gmelina arborea*, *Acacia mangium*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

11.

Bhuiyan, M. K., M. Zashim Uddin, M. A. Latif and S. A. Khan

1986. Effect of initial spacing on the survival and growth of *Eucalyptus*. Chittagong University Studies, Part II, 10(1&2):115-121.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Charkai, Dinajpur, Bangladesh
Year Started : 1983
Year Completed : 1985
Notes : -

12.

Bhumibhamon, Suree

1984. Genetics and tree improvement of some forest tree species. Research Report. Kasetsart University, Bangkok, Thailand.

Language : Thai/English
Key Words : species trial, genetic, morphology, provenance trial
Executing Agency : KUFF
Funding Agency : -

Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Changwat Uthai Thani,
 Thailand (320m)
Year Started : 1981
Year Completed : 1981
Notes : *E. camaldulensis* of
 Gilbert River, MU Creek and EMU Creek
 at Petford provenances were recommended
 to be planted at Uthai Thani and adjacent
 areas.

13.

Boland, D. J. and K. Pinyopusarerk

1987. Early growth and survival of some
Eucalyptus and Australian tree species
 planted at Tung Kula Ronghai Development
 Project in northeastern Thailand. Thai
 Journal of Forestry 6(3): 250-267.

Language : English
Key Words : height, survival, Tung
 Kula Ronghai
Executing Agency : CSIRO/RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus*
camaldulensis,
Acacia auriculiformis
Sites : Amphoe Phayakkha-
 phum Phisai, Changwat
 Maha Sarakham,
 Amphoe Kaset Wisai,
 Pathum Rat,
 Suwannaphum,
 Changwat Roi Ed
Year Started : 1987
Year Completed : 1987
Notes : -

14.

Boontawee, Boonchoob, Bunyarit
Puriyakorn, Surachal Pransin,
Koetkong Pitpricha, Somboon
Kiratiprayoon and Thiti Wisarat

1988. Aboveground biomass of five fast
 growing species at five-year-old in the
 different spacing plantation. Proceedings of
 the Fourth Silvicultural Seminar,
 Royal Forest Department, 1.

Language : Thai
Key Words : biomass, spacing
Executing Agency : RFD
Funding Agency : RFD
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Azadirachta indica,
Cassia siamea,
Leucaena leucocephala
Sites : Amphoe Mae Taeng,
 Changwat Chiang Mai,
 Amphoe Muang,
 Changwat Ratchaburi,
 Amphoe Chum Phae,
 Changwat Khon
Year Started : 1981
Year Completed : 1986
Notes : -

15.

Bowen, M. R. and T. V. Eusebio

1982. Seed handling practices: four fast
 growing hardwoods for humid tropical
 plantations in the eighties. Malaysian
 Forestry 45(4):534-547.

Language : -
Key Words : silviculture, seed
 technology, seed storage
Executing Agency : FRC
Funding Agency : FRC
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Eucalyptus deglupta
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

16.

Braza, Ricardo D.

1987. Resistance of seedlings of four
 plantation tree species to white grubs,
Leucopholis irrota (chevrolat) (*Coleoptera*:
Scarabidae). Philippine Forest Research
 Journal 12(1 & 2):1-7.

Language : English

- Key Words** : varietal resistance, pest management, *Leucopholis irrota*, tree plantation
- Executing Agency** : PICOP
- Funding Agency** : PICOP
- Status** : CP
- Species** : *Eucalyptus deglupta*, *Acacia mangium*, *Pinus caribaea*
- Sites** : Bislig, Surigao del Sur, Philippines
- Year Started** : 1987
- Year Completed** : 1987
- Notes** : Seedlings of *Eucalyptus deglupta* Blume, *E. urophylla* S.T. Blake, *Acacia mangium* Wild. and *Pinus caribaea* (Royle ex Gordon) were studied for their resistance to white grubs (*Leucopholis irrota* (chevrolat) (Coleoptera: Scarabidae)). The study showed that the four species were as highly susceptible to the pests as *Albizia falcataria* (control). Like *A. falcataria*, all the roots of 100% of the seedlings of the four species were eaten by white grubs after a two-week exposure to the pest. The mortality rate among the four species ranged from 50 to 80% and was also not significantly different from the 80% mortality rate for *A. falcataria*.
- 17.**
Bunyavajchewin, Sarayudh and Bunyarit Puriyakorn
1983. Spacing effect on growth, above-ground biomass and charcoal production of *Eucalyptus camaldulensis* Dehn. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 81-94.
- Language** : Thai
- Key Words** : spacing, growth, biomass, charcoal production
- Executing Agency** : RFD
- Funding Agency** : -
- Status** : CP
- Species** : *Eucalyptus camaldulensis*
- Sites** : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
- Year Started** : 1982
- Year Completed** : 1983
- Notes** : Growth, above-ground biomass and charcoal production of *E. camaldulensis* decreased with decreasing spacing from 4*8, 4*4, 2*4, 2*2, 1*2 and 1*1 m, respectively.
- 18.**
Bunyavajchewin, Sarayudh and Bunyarit Puriyakorn
1984. Net primary productivity of five tree species and change in soil properties after 30 months of growth. Proceedings of the Forestry Conference, Royal Forest Department, 2:148-165.
- Language** : Thai
- Key Words** : biomass, soil properties
- Executing Agency** : RFD
- Funding Agency** : -
- Status** : CP
- Species** : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Cassia siamea*, *Azadirachta indica*
- Sites** : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
- Year Started** : 1982
- Year Completed** : 1983
- Notes** : Maximum primary productivity was recorded for *E. camaldulensis* in comparison to the remaining 4 species. Major soil nutrients were higher than the adjacent area in 30 months after tree plantings.
- 19.**
Bunyavejchewin, Sarayudh, Bunyarit Puriyakorn and Boonchoob Boontawee
1983. Above-ground biomass firewood and charcoal production, nutrient and energy of five tree species. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 132-143.
- Language** : Thai
- Key Words** : biomass, firewood, charcoal production,

nutrient
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Leucaena leucocephala,
A. indica, *C. siamea*
Sites : Amphoe Muang,
Changwat Ratchaburi,
Thailand (35m)
Year Started : 1983
Year Completed : 1983
Notes : Maximum above-ground
biomass, firewood, charcoal production and
nutrient accumulation were recorded for *L.*
leucocephala while the minimum values
were found in *A. auriculiformis*.

20.

Bunyavejchewin, Sarayudh, Bunyarat
Puriyakorn and Somboon Kiratiprayoon

1987. Litterfall and net primary production
in spacing trial plots of *Eucalyptus*
camaldulensis. Thai Journal of Forestry
6(3):239-249.

Language : Thai
Key Words : litterfall, net primary
productivity, spacing
trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang,
Changwat Ratchaburi,
Thailand (35m)
Year Started : 1987
Year Completed : 1987
Notes : In 1*1m spacing plot,
the stem, leaf and above-ground biomass
were greatest. The greatest biomass was in
4*4m spacing plot. Net primary productivity
ranged from 11 to 17 t/ha/yr.

21.

Camalig, Dolores and Allan Pestijo
Belmendo

1980. The response of bagras seedlings to
three leguminous tree species as fertilizer.
Undergraduate Thesis. DMMMSU-CAF,
Bacnotan, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Forest Research Area,
DMMMSU-CAF,
Bacnotan, La Union,
Philippines

Year Started : 1980
Year Completed : 1980
Notes : This study was
conducted primarily to determine response
of bagras seedlings to three leguminous tree
species as fertilizer. Treatments used in the
study are as follows:(A) A-control
(no fertilizer), (B) 200 grams ipil-ipil, (C)
200 grams kakawate, (D) 20 0 grams Acacia.
The study revealed that plant height was
tallest at treatment (B) ipil-ipil with a mean
of 89.92cms. This was followed by treatment
(C) (madre de cacao) and treatment D
(acacia) with a mean of 84.88 and 78.84 cms.,
respectively. The shortest plant was obtained
from the control with a mean observed
among treatment means of different
leguminous tree species. Furthermore,
treatment C gave the highest growth
increment with a total mean of 16,969.55
cms. followed by treatment B, D and A with
a total mean of 15.99, 13.76 and 11.63 cms.,
respectively. Highly significant differences
among treatment used was revealed in the
analysis of variance.

22.

Cereneo, Vilma

1985. Effects of different levels of nitrogen
on the growth and survival of bagras
(*Eucalyptus deglupta* Blume.).
Undergraduate Thesis. DMMMSU-CAF,
Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF

Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Alipang, Rosario, La Union, Philippines
Year Started : 1984
Year Completed : 1985
Notes : This study aimed to determine the response of Bagras affected by the different levels of Nitrogen fertilizer. The treatment used were control T1-5grams of urea/plant, T2-10grams of urea/plant, T3-15grams of urea/plant. The treatments used were replicated four times following the Randomized Complete Block Design (RCBD). There is a significant difference on the monthly diameter increment of seedlings. Likewise, a highly significant difference was observed on the height of seedlings 120 days after fertilizer application. Therefore, application of Nitrogen fertilizer to bagras seedlings showed better growth performance than the unfertilized seedlings.

23.

Chaiklom, Damrong

1978. The forest pest controls. Proceedings of the Forestry Conference. Royal Forest Department, Forest Biology Section. 33-44.

Language : Thai
Key Words : fungi, insect, nematodes
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Melia azedarach,
Casuarina junghuhniana
Sites : Thailand
Year Started : 1977
Year Completed : 1977
Notes : Various methods of pest controls were reviewed including chemical, biological, silvicultural and legal controls.

24.

Chakrapolwararit, Chakrapol

1985. Yield-density effect of *Eucalyptus camaldulensis* Dehnh. Plantation. Master of

Science (Forestry) Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : density, yield, net primary production, volume
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1981
Year Completed : 1985
Notes : Four grades of density, 1,250(2*4m), 625(4*4m), 417(4*6) and 278(6*6) tree/ha. Biomass of each part and stem volume per tree were inversely correlated to density. But dry matter yield, stem, volume and net primary production were directly.

25.

Chakrapolwararit, Chakrapol and Pitaya Petmak

1986. Yield-density effect of *Eucalyptus camaldulensis* plantation. Silvicultural Research Bulletin. Royal Forest Department. 1:81-99.

Language : Thai
Key Words : density, yield
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1984
Year Completed : 1984
Notes : -

26.

Chaloempong, Aniwat

1977. Damping-off of seedlings in nursery. Proceedings of the Forestry Conference,

Royal Forest Department, Forest Biology Section. 1-9.

Language : Thai
 Key Words : damping-off
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Melia azedarach
 Sites : Amphoe Muang,
 Changwat Si Sa Ket
 (130m), Thailand
 Year Started : 1977
 Year Completed : 1977
 Notes : Low resistances to
 damping-off was recorded for *E.*
camaldulensis and *M. azedarach* seedlings.

27.

Chaloempong, Aniwat

1984. Harmful diseases of *Eucalyptus camaldulensis* Dehnh. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 151-166.

Language : Thai
 Key Words : pathology
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Thailand
 Year Started : 1984
 Year Completed : 1984
 Notes : Seed-borne diseases,
 seedling diseases in nurseries, nutrient
 deficiency, root and butt diseases, heart and
 butt rots and leaf and stem diseases of *E.*
camaldulensis were investigated.

28.

Chamnankit, Siripun

1980. Nobila method for germinating six *Eucalyptus* Species. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 2:17-22.

Language : Thai
 Key Words : Nobila method,
 germination
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Ngao,
 Changwat Lampang,
 Thailand (200-2,000m)
 Year Started : 1980
 Year Completed : 1980
 Notes : Nobila technique was
 introduced to the germination tests of
 eucalyptus seeds, proper for dry and hot
 areas.

29.

Chan, Feliza D.

Glue-laminating characteristics of some Philippine woods (giant ipil-ipil, bagras and yemane).

Language : English
 Key Words : -
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CU
 Species : *Leucaena leucocephala*,
Eucalyptus deglupta,
Gmelina arborea
 Sites : College, Laguna,
 Philippines
 Year Started : 1982
 Year Completed : 1986
 Notes : -

30.

Charoenqun, Kitichai

1988. Stand density and production structure of two-year-old *Eucalyptus camaldulensis* Dehnh. plantation. Master of Science (Forestry) Thesis, Kasetsart University, Bangkok, Thailand.

Language : Thai
 Key Words : stand, density, structure,
 production, plantation,
 two-year-old
 Executing Agency : -

Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Somdet, Changwat Kalasin (320m)
Year Started : 1983
Year Completed : 1983
Notes : Biomass of each part of tree was inversely correlated to density by 625(4*4m) tree/ha. highest. Biomass yield and total aboveground biomass were directly correlated to density by 40,000(0.5*.5m) tree/ha the highest.

31.
Chitchamnong, Prawit and Nutthakorn Semsuntud

1989. Tissue culture of *Eucalyptus camaldulensis* Dehnh. and *Acacia auriculiformis* Cunn. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:131-143.

Language : Thai
Key Words : tissue culture
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*
Sites : King Amphoe Nam Kliang, Changwat Si Sa Ket, Amphoe Bang Saphan Noi, Changwat Prachup Khiri Khan, Thailand.
Year Started : 1988
Year Completed : 1988
Notes : *E. camaldulensis*: Optimum chemical was Chlorox (Sodium ypochloride) 5%/30mins. and optimum culture was White + IBA 1um. *A. auriculiformis*: Optimum chemical was Chlorox 5%/45mins., and optimum culture was MS + IAA um.

32.
Chomchan, Arun and Suthi Visuthidhepkul

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 335-354.

Language : Thai
Key Words : physical properties, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*, *Casuarina equisetifolia*, *C. junghuhniana*
Sites : Changwat Prachuap Khiri Khan, Nakhon Ratchasima, Songkhla, Khon Kaen, Chaiyaphum, Ratchaburi, Nakhon Sri Ma
Year Started : 1981
Year Completed : 1981
Notes : -

33.
Chomchan, Arun and Winai Panyathanya

1981. Wood energy (4): estimating wood energy potential. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 213-228.

Language : Thai
Key Words : fast-growing species, density, ash content, calorific value, gross heat conten, heat value
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Casuarina junghuhniana*, *Acacia auriculiformis*, *Leucaena leucocephala*, *A. indica*, *T. siamensis*, *B. arundinacea*
Sites : Thailand
Year Started : 1981

Year Completed : 1981

Notes : -

34.

Chomchan, Arun, Suthi Visuthidhepakul
and Pirom Hoatakul

1985. Properties and utilization of
fast-growing trees. Proceedings of the
Forestry Conference. Royal Forest
Department. 2:298-329.

Language : Thai
Key Words : mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena huecocephala*,
Acacia auriculiformis,
Casuarina junghuhniana,
C. equisetifolia,
Melia azedarach,
Eucalyptus camaldulensis

Sites : Amphoe Sanam
Chai Khet, Changwat
Chachoengsao,
Amphoe Khon San,
Changwat Chaiyaphum,
Amphoe Pak Chong

Year Started : 1985
Year Completed : 1985
Notes : -

35.

Chomchan, Arun, Winai panyathanya,
Thongtham Chaikwang, Pramuk
Thichakorn and Arkom Wetsupasuk

1981. Wood energy (5): Efficiency of
fuelwood and cooking stoves. Proceedings
of the Forestry Conference. Royal Forest
Department. Forest Product Section,
229-254.

Language : Thai
Key Words : fast-growing species
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Casuarina junghuhniana,

C. equisetifolia,
Leucaena leucocephala

Sites : Thailand

Year Started : 1981

Year Completed : 1981

Notes : -

36.

Chunwarin, Wiraj, Charai Thongstit and
Pitaya Sripan

1987. Reduction of water absorption of
hardboard manufactured from Eucalyptus
wood. Proceedings of the Forestry
Conference, Royal Forest Department,
Forest Product Section, 259-293.

Language : Thai
Key Words : physical properties,
hardboard, mechanical
properties
Executing Agency : KUFF/RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus*
camaldulensis

Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : The reduction of water
absorption of hardboard manufactured from
eucalypt wood could be done by adding the
7:3 ratio of aluminium and potassium
sulphate together with an increase in heating
period.

37.

Darmawan, Oce, Syafii Manan and Edje
Djamhuri

1987. Evaluasi uji coba dan provenansi
Eucalyptus spp. di Subanjeriji, Sumatera
Selatan. B.Sc. Thesis, Faculty of Forestry,
IPB.

Language : Indonesian
Key Words : Eucalyptus, species
trial, provenances
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Eucalyptus* spp.

Sites : Indonesia
 Year Started : 1987
 Year Completed : 1987
 Notes : -

38.

Das, S., J. Davidson, S. A. Khan, M. A. Latif and M. Zashlm Uddin

1985. Biomass production in tree crops in Bangladesh. Silviculture Division, Bulletin No. 5, Bangladesh Forest Research Institute, Chittagong, p. 32.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. tereticornis,
E. brassiana,
Cassia siamea and
Leucaena leucocephala

Sites : Dinajpur and Tangail, Bangladesh

Year Started : 1977
 Year Completed : 1983
 Notes : -

39.

Das, Someswar

1984. Management techniques for raising Eucalyptus plantations. Silviculture Division, Bulletin No. 2, Bangladesh Forest Research Institute, Chittagong, p.29.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI/UNDP
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. brassiana,
E. tereticornis

Sites : Sylhet, Chittagong, Dinajpur and Tangail, Bangladesh

Year Started : 1980
 Year Completed : 1983
 Notes : -

40.

Das, Someswar

1984. Nursery techniques for Eucalyptus species. Silviculture Division, Bulletin No. 1, Bangladesh Forest Research Institute, Chittagong, p. 34.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI/UNDP
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. brassiana,
E. tereticornis

Sites : Chittagong, Bangladesh

Year Started : 1978

Year Completed : 1983

Notes : -

41.

Davidson, J., S. Das, M. A. Latif and M. Zashlm Uddin

1985. Eucalyptus species elimination trials. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 2-89.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. brassiana,
E. tereticornis

Sites : Dinajpur, Tangail, Sylhet and Chittagong, Bangladesh

Year Started : 1978

Year Completed : 1983

Notes : -

42.

Davidson, J., S. Das, M. A. Latif, M. Zashlmuddin and S. A. Khan

1985. Provenance trials of Eucalyptus

established in 1978. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 91-105.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. brassiana and
E. tereticornis
 Sites : Dinajpur, Tangail, Sylhet,
 and Chittagong,
 Bangladesh
 Year Started : 1978
 Year Completed : 1983
 Notes : -

43.

Davidson, J., S. Das, S. A. Khan, M. A. Latif
 and M. Zashim Uddin

1985. Tree volume tables for small eucalypt
 round wood in Bangladesh. Silviculture
 Division, Bulletin No. 4, Bangladesh Forest
 Research Institute, Chittagong, p. 71.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. brassiana,
E. tereticornis
 Sites : Dinajpur and Tangail,
 Bangladesh
 Year Started : 1983
 Year Completed : 1983
 Notes : -

44.

Davidson, J., S. Das, S. A. Khan, M. A. Latif
 and Zashim Uddin

1985. Eucalypt biomass production.
 Eucalypts in Bangladesh. Silviculture
 Division, Bulletin No. 6, Bangladesh Forest
 Research Institute, Chittagong, pp. 135-166.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus*
camaldulensis,
E. tereticornis,
E. brassiana
 Sites : Dinajpur and Tangail,
 Bangladesh
 Year Started : 1978
 Year Completed : 1983
 Notes : -

45.

Deden Edi Ruslandi, Yusuf Sudohadi and
 Kayono Purba

1987. Sifat-sifat hardboard dari kayu *Acacia*
mangium Willd. *Eucalyptus deglupta* Blume,
 dan *Eucalyptus urophylla* Blake. BSc Thesis,
 Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : hardboard properties
 Executing Agency : FF - Faculty of Forestry,
 IPB
 Funding Agency : -
 Status : CU
 Species : *Acacia mangium*,
Eucalyptus deglupta,
Eucalyptus urophylla
 Sites : Indonesia
 Year Started : 1987
 Year Completed : 1987
 Notes : -

46.

dela Cruz, Reynaldo E.

1984. Phenology of selected industrial forest
 plantation species. Terminal Report.

Language : English
 Key Words : -
 Executing Agency : UPLB-PCARRD IND
 Funding Agency : PCARRD
 Status : CU
 Species : *Gmelina arborea*,
Albizia falcataria,
Eucalyptus deglupta,

Leucaena leucocephala
Sites : Laguna, Nueva Vizcaya, Abra, Philippines
Year Started : 1980
Year Completed : 1984
Notes : Diameter growth of selected fast-growing tree species (*L. Bangkal, Yemane, Molluccan sau, red gum, bagras, gubas and ipil-ipil*) as affected by climatic factors (rainfall, evaporation, relative humidity, radiation, sunshine duration and air temperature) in three sites (Laguna, N. Vizcaya and Abra) were studied. Phenological phenomena (flower bud formation, flowering, fruiting, formation of matured fruits, seed dispersal, shedding of leaves, flushing and bark shedding) for each specie as they relate to climatic conditions were also observed. Lastly, the annual magnitude and cycle of growth for each species were studied.

47.

Djajuli, Akhmad, Ishemat Surianegara and Yahya Fakuara

1987. Pengaruh allelopati *Eucalyptus deglupta* Blume terhadap tanaman kedelai (*Glycine max*) dan Jagung (*Zea mays*). B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : allelopathy
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Eucalyptus deglupta, Glycine max, Zea mays*
Sites : Indonesia
Year Started : 1986
Year Completed : 1986
Notes : -

48.

Fariyanto Arief, Yadi Setiadi and Yahya Fakuara

1987. Pengujian efektifitas cendawan *Pisolithus tinctorius* dan *Rhizopogon* sp. terhadap pertumbuhan anakan *Eucalyptus urophylla* Blake. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : *Eucalyptus urophylla, fungi inoculation*
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Eucalyptus urophylla, Pisolithus tinctorius, Rhizopogon* sp.
Sites : Indonesia
Year Started : 1987
Year Completed : 1987
Notes : -

49.

Flores, Mariano P.

1980. Responses of bagras (*Eucalyptus deglupta* Blume) seedlings to ammonium and nitrate nitrogen sources. Master of Science Thesis. University of the Philippines at Los Baros, College, Laguna, Philippines.

Language : English
Key Words : ammonium, nitrate nitrogen, bagras
Executing Agency : MS Thesis
Funding Agency : CFES
Status : CU
Species : *Eucalyptus deglupta*
Sites : College, Laguna, Philippines
Year Started : 1978
Year Completed : 1979
Notes : The study was conducted to determine (1) effects of NH₄- and NO₃-nitrogen sources on the growth and development of bagras seedlings, (2) effects of varying levels of NH₄- and NO₃-nitrogen on morphological character of bagras seedlings, and (3) the visual symptoms of N-deficiency of seedlings. The study was established in a randomized complete block design (RCBD) with four replications and seven treatments. The NH₄-N treatment was on 3 levels: 7.5mM/liter, 15mM/ liter and 30mM/liter. The NO₃-N treatment was also on 3 levels: 7.5mM/liter, 15mM/liter and 30mM/liter. The seventh level was zero N. The seedlings were cultured in white sand medium and maintained for 17 weeks. The parameters assessed (height and diameter growth, dry matter of roots, stems, leaves,

root-shoot ratios and shoot moisture content) were affected by the different levels of NH₄ and NO₃ nitrogen treatments. Most growth parameters, except the shoot-root ratios as the level of nitrogen applied was increased. The highest shootroot ratios was obtained from 15mM NH₄-n/liter treatment but it was not significantly different from those obtained from the 30mM (NH₄-N)/liter, 15mM (NO₃-N)/liter and 30mM (NO₃-N)/liter requirements. The lowest shoot ratios were obtained from zero N and 7.5mM (NH₄-N)/liter but they were not significantly different from those obtained from 7.5mM/ (NO₃-N)/liter and 15mM (NO₃-N)/liter. Bagras seedlings were capable of absorbing and utilizing nitrogen in the form of either ammonium or nitrate. The seedlings, almost of the same size and vigor, showed individual variations in growth rate. Leaves of control seedlings and those receiving the 7.5mM (NH₄-N)/liter and 7.5mM (NO₃-N)/liter treatments were pale green after one month and chlorotic after 17 weeks. Yellowing started at the older leaves and progressed toward the young leaves. Affected seedlings had few, small leaves and branches and were severely stunted. The seedlings in the 15mM (NH₄-N)/liter and 15mM (NO₃-N)/liter treatments grew better. They had more leaves and branches of moderate size. The seedlings in the 30mM (NH₄-N)/liter and 30mM (NO₃-N)/liter treatments were tall, had more dark green, large, sappy leaves, and had weak branches and stems. The growth parameters assessed in the study had positively quadratic responses to increased levels of NH₂ and NO₃ treatments.

50.

Forest Product Research Division, Royal Forest Department

1985. A preliminary study of manufacturing hardboard from *Eucalyptus camaldulensis*. Proceedings of the Forestry Conference. Royal Forest Department. 2:346-349.

Language : Thai
 Key Words : ardbboard, anatomy,
 physical properties
 Executing Agency : RFD

Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Changwat Kalasi,
 Thailand (320m)
 Year Started : 1985
 Year Completed : 1985
 Notes : *E. camaldulensis* was suitable for hardboard manufacturing in terms of misture content, density and bending properties.

51.

Forest Product Research Division, Royal Forest Department

1985. Sulphate pulping of 3-year-old *Eucalyptus camaldulensis*. Proceedings of the Forestry Conference. Royal Forest Department. 2:358-371.

Language : Thai
 Key Words : anatomy, physical properties, pulp
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Kanthararom,
 Changwat Si Sa Ket,
 Thailand (130m)
 Year Started : 1985
 Year Completed : 1985
 Notes : It was found that 3-year-old *E. camaldulensis* was suitable for pulping due to its medium fiber length, thin cell wall, easy to be bleached and high yield. Such advantages were superior to 10 and 15-year-old *E. camaldulensis*.

52.

Garcia, Pepito R.

1980. The response of bagras (*Eucalyptus deglupta* Blume) to various levels of phosphorus. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English

Key Words : bagras, dry-matter yield, phosphorous deficiency, chlorosis, critical level

Executing Agency : MS Thesis

Funding Agency : FORI

Status : CU

Species : *Eucalyptus deglupta*

Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : Total dry-matter yield significantly increased from 1.3gm/seedling to as high as 4.98 gm/seedling as P levels increased from 0 to 1,000 ppm P. Regression analysis showed a positive quadratic response to increasing levels of P. Maximum yield was attained at 100 ppm P and started to decline as concentrations increased to 1,000 ppm. Visual symptoms of P deficiency first appeared after 4 weeks of experimentation. Stunted growth, thin leaves, premature defoliation of the lower leaves (old) were the early symptoms. Chlorosis and dark green or bluish coupled with purple tints were symptoms of severe P deficiency. Symptoms appeared on seedlings treated with 0, 5, 10, 20, 50, 100 and 200 ppm P. Nutrient contents in the shoots were much greater than in the roots, which indicates that most of the N, K, P, Mg and Ca absorbed by the roots are trans-located to active growing tissues of the shoots. Uptakes of N, P and Ca were highly significant. This indicates that as P levels increase, uptakes of these nutrients also increase. The regression analysis showed a positive quadratic response to P treatments. Nutrient uptake by the increasing levels of P, which meant that K and Mg are significantly antagonized by the increasing concentrations of P.

53. Guagool, Pin

1984. Nursery techniques for *Eucalyptus camaldulensis* spp. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 90-104.

Language : Thai

Key Words : nursery techniques

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*

Sites : Amphoe Hot, Changwat Chiang Mai, Thailand (1,095m)

Year Started : 1984

Year Completed : 1984

Notes : Nursery and seedling-production techniques for *E. camaldulensis* were described in details.

54. Guillet, Celestino C. and Merlito T. Antolin

1982. A comparative study of the height and diameter of Bagras (*Eucalyptus deglupta* Blume) saplings as affected by different levels of NPK fertilizer (14-14-14). Undergraduate Thesis. DMMMSU-CAF, Bacnotan, La Union, Philippines.

Language : English

Key Words : -

Executing Agency : DMMMSU-CAF

Funding Agency : -

Status : CP

Species : *Eucalyptus deglupta*

Sites : Forest Research Area, Sapilang, Bacnotan, La Union, Philippines

Year Started : 1981

Year Completed : 1982

Notes : This study determined the performance in terms of height and diameter growth. Fertilizer application significantly affected plant growth in terms of height and diameter as well as in the number of branches produced per plant six months after fertilizer application. Plants fertilized at 1,500kg/ha showed the highest growth increment in height and diameter and the greatest number of branches produced per plant while the unfertilized plant showed the lowest plant growth. There were three (3) fertilizer treatments studied, Treatment A (no fertilizer), Treatment B (500 kg/ha), Treatment C (1,000 kg/ha), Treatment D (1,500 kg/ha). Also plants fertilized at higher rates of concentration had significantly higher monthly apical growth rate.

55.

Hafmaller, Peller and Pongsak Chatdecha

1979. Proceedings of the Silvicultural Research. Royal Forest Department. 18-26.

Language : Thai
 Key Words : growth, seed, flower
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Hot, Changwat Chiang Mai, Thailand (400m)
 Year Started : 1975
 Year Completed : 1977
 Notes : -

56.

Haryono, Moh., Yadi Setiadi and Chalril Anwar

1987. Studi kemungkinan adanya pengaruh allelopathy dari beberapa jenis eucalyptus terhadap pertumbuhan tanaman jagung (*Zea mays* L.) dan Padi Gogo (*Oriza sativa* L.)
 B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : allelopathy, maize-dry rice
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Eucalyptus*, *Zea mays*, *Oriza sativa*
 Sites : Indonesia
 Year Started : 1987
 Year Completed : 1987
 Notes : -

57.

Hattacharoen, Chaweewan

1984. Insects attacking *Eucalyptus camaldulensis*. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 142-150.

Language : Thai
 Key Words : insects, nematode

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*

Sites : Thailand

Year Started : 1981

Year Completed : 1984

Notes : Termites, insects and nematodes attacking *E. camaldulensis* were investigated.

58.

Hawkins, Thomas

1987. Biomass and volume tables for *Eucalyptus camaldulensis*, *Dalbergia sissoo*, *Acacia auriculiformis* and *Cassia siamea* in the Central Bhabar-Terai of Nepal. O.F.I. Occasional Paper No. 33.

Language : English

Key Words : biomass and volume tables

Executing Agency : DFK - Department of Forest, Kathmandu and NEP - Nepal

Funding Agency : DFK

Status : CP

Species : *Eucalyptus camaldulensis*, *Dalbergia sissoo*, *Acacia auriculiformis*, *Cassia siamea*

Sites : NEP

Year Started : 1986

Year Completed : 1986

Notes : -

59.

Hidalgo, Bartolome G. and Henry D. Hidalgo

1982. The effects of different rates of NPK fertilizer on the height growth of Bagras (*Eucalyptus deglupta*) saplings.

Language : English

Key Words : -

Executing Agency : DMMMSU-CAF

Funding Agency : -

Status : CP

Species : *Eucalyptus deglupta*

Sites : Agroforestry
Experimental Site,
Sapilang, Bacnotan,
La Union, Philippines

Year Started : 1980

Year Completed : 1981

Notes : The response of saplings
in terms of plant height eight months after
fertilizer application was not significantly
affected by the different rates of fertilizer.
However, plants treated with 420kg/ha were
the tallest while the unfertilized plants were
the shortest. On the other hand, number of
leaves and number of branches was
significantly affected by the different rates of
fertilizer. treatments used in the study
followed A-control, B-420kg/ha,
C-640kg/ha, D-860kg/ha.

60.

Hiranpun, Pitaya

1987. Production of small size fuelwood from
the thinning of *Eucalyptus camaldulensis*
Dehnh. Plantation. Master of Science
(Forestry) Thesis, Kasetsart University.

Language : Thai

Key Words : 3-year-old, thinning,
fuelwood

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus*
camaldulensis

Sites : Amphoe Muang,
Changwat Ratchaburi,
Thailand (35m)

Year Started : 1984

Year Completed : 1985

Notes : Production of small-
size fuelwood from thinning after three years
in the 1*1 to 1*2 and 1*2 to 2*2m plot. In
one year, there were 40,860 and 25,021
bundle/ha with income of 6,537.60 and
4,003.36 baht/rai, respectively.

61.

Hutacharoen, Chaweewan

1983. Effects of insects and pathogens on
plantation trees. The third seminar on

silvicultural forestry for rural community.
Faculty of Forestry, Kasetsart University,
Bangkok, Thailand.

Language : Thai

Key Words : fungi, insect, plantation

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus*
camaldulensis,
Acacia auriculiformis,
Casuarina equisetifolia,
C. junghuhniana

Sites : Thailand

Year Started : 1983

Year Completed : 1983

Notes : -

62.

Islam, M. Sirajul

Studies on the growth performance of some
fast growing species in Chittagong University
hills and their effects on soil.

Language : -

Key Words : -

Executing Agency : BDCU

Funding Agency : Author

Status : CU

Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Albizia lebbek, *Pinus* spp.

Sites : Chittagong University
Campus, Bangladesh

Year Started : 1987

Year Completed : 1989

Notes : -

63.

**Islam, Q. N., Z. Uddin, M. Tarafder and S.
A. Islam**

Fuelwood plantation research of some
indigenous and exotic species.

Language : -

Key Words : -

Executing Agency : BFRI

Funding Agency : IDA

Status : OR

Species : *Acacia auriculiformis*,
A. nilotica,
Dalbergia sissoo,
Eucalyptus camaldulensis,
Leucaena leucocephala

Sites : Chittagong, Sylhet,
Tangail and Dinajpur,
Bangladesh

Year Started : 1986

Year Completed : 1991

Notes : -

64.

**Jamroenprucksas, Monthon and Chana
Phiewluang**

1986. The determination of equation for estimating production of some forest tree species. Silvicultural Research Bulletin. Royal Forest Department. 1:250-286.

Language : Thai

Key Words : equation, production,
yield table

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Casuarina junghuhniana*,
Eucalyptus
camaldulensis,
Leucaena leucocephala

Sites : Amphoe Muang,
Changwat Saraburi,
Thailand

Year Started : 1984

Year Completed : 1984

Notes : -

65.

Jamroenprucksas, Monton

1987. The production of *Eucalyptus camaldulensis* Dehnh. established under the agroforestry scheme. Thai Journal of Forestry 6(3):268-278.

Language : Thai

Key Words : agroforestry, volume,
biomass

Executing Agency : KUFF

Funding Agency : -

Status : CP

Species : *Eucalyptus*
camaldulensis

Sites : Amphoe Somdet,
Changwat Kalasin,
Thailand (320m)

Year Started : 1987

Year Completed : 1987

Notes : Crops were cassava.
The results showed that the survival rate, stem volume, stem branch and leaf biomass at 4 years old were 86.7%, 4.48cu.m., 2.34, 0.4 and 0.33ton/rai respectively. At 7 years, they were 85.3%, 12.7cu.m./rai, 7.1, 1.35 and 0.28ton/rai, respectively.

66.

Jamroenpruksa, Monthon

1988. Growth and yield of thinned stand and coppices of *Eucalyptus camaldulensis* Dehnh. and of Intercropped Rice (*Oryza sativa* L.) in Thailand. Doctor of Philosophy Forestry, Silviculture and Forest Influences Thesis, University of the Philippines at Los Baños.

Language : English

Key Words : agroforestry, growth,
yield, coppice

Executing Agency : KUFF

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*

Sites : Amphoe Muang,
Changwat Kalasin,
Thailand (320m)

Year Started : 1987

Year Completed : 1988

Notes : Productivity of stand in the 7-year old plantation was higher than in the 4-year old plantation. But productivity of rice intercropped was lower than that. Thinning and age did not affect coppices.

67.

Jeeranantasin, Wilalluck

1987. Cost and return of *Eucalyptus* plantation through agroforestry and non-agroforestry systems. Thai Journal of Forestry 6(3): 295-308.

Language : Thai
Key Words : cost, return, agroforestry, non-agroforestry
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Dan Chang, Changwat Suphan Buri, Amphoe Thong Pha Phum, Changwat Kanchanaburi, Thailand (45m)
Year Started : 1986
Year Completed : 1987
Notes : The cost of agroforestry system (*E.camaldulensis* with maize) was lower than that of the traditional plantation system. The average cost per hectare was 2,585.93 and 2,848.90 baht, with internal rates of return of 43.44 and 25%, respectively.

68.

Jiraungkornkul, Arunee

1987. Natural durability of some fast-growing timbers to the attack of brown rot fungi. Proceedings of the Forestry Conference, Royal Forest Department. Forest Product Section. 93-108.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Eucalyptus camaldulensis*, *Melia azedarach*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Fungi: *Gloephyllum sepiarium*, *G. subferugineum*, *Favolus* spp., *Trametes cervino-gilvus*, *Haploporous ljubarskyi*, *Fomitopsis pinicola*, and *Schizophyllum commune*.

69.

Jirayut, Tawat

Study on wood cement particleboard from *Eucalyptus camaldulensis*. Proceedings of the Forestry Conference. Royal Forest Department. 2:338-345.

Language : Thai
Key Words : wood cement particleboard, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Klong Tom, Changwat Krabi, Thailand (40m)
Year Started : 1985
Year Completed : 1985
Notes : *E. camaldulensis* was found to be suitable for cement-based board. Wood and cement ratio was 1:2.5 with 2% CaC12 by cement weight.

70.

Jirayut, Tawat

1987. Wood-cement bonding compatibility of *Eucalyptus camaldulensis*. Thai Journal of Forestry 6(3):291-294.

Language : Thai
Key Words : wood-cement bonding, particleboard
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1987
Year Completed : 1987
Notes : The stick test method used to determine wood-cement bonding compatibility of 2 brands of portland cements in domestic market showed that the Elephant brand had higher bonding value than the Diamond brand.

71.

Jirayut, Tawat and Chaiyaporn Ounjittichai

1987. The effect of mineralizing fluids on the compatibility between the wood of *Eucalyptus camaldulensis* Dehnh. and Portland Cement. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 231-237.

Language : Thai
 Key Words : wood-cement bonding, particleboard
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
 Year Started : 1987
 Year Completed : 1987
 Notes : Sodium silicate and aluminium sulphate were found to be better in wood-cement compatibility than calcium chloride.

72.

Kamaluddin, M.

1985. Sterilization of soil in raising eucalyptus seedlings in nursery. Chittagong University Studies, Part II, 9(1):57-60.

Language : English
 Key Words : -
 Executing Agency : IFCU
 Funding Agency : IFCU
 Status : CP
 Species : *Eucalyptus camaldulensis*, *E. citriodora*
 Sites : I.F.C.U. Nursery, Chittagong, Bangladesh
 Year Started : 1984
 Year Completed : 1984
 Notes : -

73.

Kar, N. K. and M. Z. Abedin

Performance of different MPTS on the crop field boundaries of Barind area.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Sesbania sesban*, *Leucaena leucocephala*, *Acacia nilotica*, *Eucalyptus camaldulensis*, *Dalbergia sissoo*, *Acacia auriculiformis*
 Sites : F.S.R. site, Saroil, Barind, Rajshahi, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

74.

Karim, Md. Rezaul

Crop performance under various spatial arrangements of trees in the High Ganges Flood Plain.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Acacia nilotica*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*
 Sites : A.R.S., Pubna, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

75.

Kasemsiri, Watcharachal, Wiset Rungsa-art and Somchart Mattuchart

Experiment on some tree species in dwarfish dry dipterocarp sp. forest.

Language : Thai
 Key Words : dry dipterocarp forest, growth
 Executing Agency : RFD
 Funding Agency : -

Status : CU
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Cassia siamea
Sites : Amphoe Dok Kham Tai,
Changwat Phayao,
Thailand (500-800m)
Year Started : 1984
Year Completed : 1988
Notes : The best suitable growth
for dwarfish Dry dipterocarp forest was
A. auriculiformis, followed by *E.*
camaldulensis and *C. siamea*.

76.

Khan, A. A. and P. Das

Investigation on the possibility of making
sulphate pulp from *Eucalyptus camaldulensis*.

Language : -
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CU
Species : *Eucalyptus*
camaldulensis
Sites : -
Year Started : 1987
Year Completed : 1988
Notes : This is a laboratory
work.

77.

Khan, M. R.

Introduction of different quick growing
multi-purpose tree species in the homesteads.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : BARC/OFRD
Status : OR
Species : -
Sites : F.S.R. site, Palima,
Tangail, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

78.

Khantong, Yuttana

1989. Effect of cutting height on the
sprouting ability of *Eucalyptus camaldulensis*
Dehnh. at Somdet plantation, Changwat
Kalasin. Master of Science in Forestry,
Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : cutting, sprout
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Somdet,
Changwat Kalasin,
Thailand (320m)
Year Started : 1987
Year Completed : 1988
Notes : Biomass and volume
were highest for cutting height of 90cm,
followed by 60cm, and 30cm, from ground
level of sprout. The percentage survival were
highest for 30cm, followed by 60cm, and
90cm.

79.

Kharuhathplattana, Benchawan

1988. The study on chemical properties and
toxicity of *Eucalyptus camaldulensis*.
Proceedings of the Forestry Conference.
Royal Forest Department. Forest Products
Section, 149-155.

Language : Thai
Key Words : toxicity, chemical
properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang,
Changwat Ratchaburi,
Thailand (35m)
Year Started : 1988
Year Completed : 1988
Notes : Steam distillation of
E. camaldulensis leaves obtained a yellow oil.
The separation of components of the oil was
carried out by using gas liquid
chromatography. It was found that the oil

composed of 1, 8-cineole and a-pinene as the main components.

80.

**Khemkhaeng, Charat, Kittipot
Som-arayapong and Witsanu Wongput**

1984. Apisilviculture-bee keeping in forest plantation theory and practice. Proceedings of the Forestry Conference. Royal Forest Department. 1:11-25.

Language : Thai
Key Words : apisilviculture
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Eucalyptus camaldulensis,
Acacia auriculiformis
Sites : Amphoe Wang Thong,
Changwat Phitsanulok .
(400m)
Year Started : 1984
Year Completed : 1984
Notes : -

81.

**Khemkhang, Charat, Kittipot
Som-arayapong and Witsanu Wongput**

1984. Multi-purpose agri-silviculture. Proceedings of the Forestry Conference. Royal Forest Department. 1:26-32.

Language : Thai
Key Words : agroforestry, growth
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *A. indica*,
Acacia auriculiformis,
Eucalyptus camaldulensis,
Leucaena leucocephala
Sites : Amphoe Wang Thong,
Changwat Phitsanulok,
Thailand (420m)
Year Started : 1982
Year Completed : 1988
Notes : *T. grandis*, planted in

spacing of 8*8, was treated as a principal specie mixed with other forest trees planted in spacing of 2*4m aiming to get natural pruning of teak.

82.

**Kiatgrajai, Preecha, Chairat Tiyanukulkit,
Teerachai Chantharasena and Amnuaw
Kowanit**

1982. Portland cement-bonded wood particleboard from *Eucalyptus camaldulensis* and *Tectona grandis*. Proceedings of the Forestry Conference, Royal Forest Department. Forest Product Section. 162-169.

Language : Thai
Key Words : particleboard,
cement-wood bonding,
physical properties,
mechanical properties
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Khlong Tom,
Changwat Krabi,
Thailand (30m)
Year Started : 1982
Year Completed : 1982
Notes : The experimental boards were using a cement to wood ratio of 2.5:1 by weight and 2% of calcium chloride. Particleboard is recommended.

83.

Koffa, Samuel N.

1981. Field performance of hormone-treated and potted bareroot seedlings of bagras (*Eucalyptus deglupta* Blume). Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : hormone-treated,
bareroot, bagras
Executing Agency : MS Thesis
Funding Agency : FAO
Status : CU

Species : *Eucalyptus deglupta*
Sites : (250-300 meters)
Year Started : 1980
Year Completed : 1980
Notes : The effects of hormonal treatments including the control (0 ppm, IBA 50 ppm, IBA 300 ppm, IBA 450 ppm, IAA 150 ppm, IAA 300 ppm, IAA 450 ppm) and potting, on growth and survival of bagras seedlings were studied for 4 weeks at the nursery and 14 weeks in the field. Survival, height and diameter growth of all hormone-treated seedlings, including the control, were significantly different. At the end of the experiment, height increments were 81.40 cm (control), 98.70 cm (potted), 77.73 cm (IBA 50 ppm), 97.35 cm (IBA 300 ppm), 92.25 cm (IBA 450 ppm), 109.46 cm (IAA 150 ppm), 88.0 cm (IAA 300 ppm), and 92.02 cm (IAA 450 ppm). Diameter growth of treated seedlings were 1.08 cm (control), 1.23 cm (potted), 1.00 cm (IBA 50 ppm), 1.10 cm (IAA 300 ppm) and 1.09 cm (IAA 450 ppm). Statistical analysis revealed significant differences within and between the two hormones applied but a considerable degree of inconsistency was observed with diameter growth. The reasons for this are fully discussed. It was concluded that applied hormones do enhance growth.

84.

Lai, Hoe Ang

1987. Some potential tree species for reclamation of tin tailings. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : growth of trees, sand, sandy slime, slime, waterlogged slime
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus deglupta,
Melaleuca leucadendron
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

85.

Latif, M. A.

1985. Fertilization of *Eucalyptus camaldulensis*. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 167-172.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Chittagong, Bangladesh
Year Started : 1982
Year Completed : 1984
Notes : -

86.

Latif, M. A., M. A. Wahab and M. J. Islam

1985. The relationship between height and diameter in *Eucalyptus citriodora*. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 243-246.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus citriodora*
Sites : Madupur Range Office
Compound, Dhaka,
Bangladesh
Year Started : 1978
Year Completed : 1980
Notes : -

87.

Latif, M. A., M. A. Wahar and M. J. Islam

1985. The relationship between crown diameter and diameter at breast height of *Eucalyptus citriodora*. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 241-242.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus citriodora*
Sites : Madupur Range Office
 Compound, Dhaka,
 Bangladesh
Year Started : 1978
Year Completed : 1980
Notes : -

88.

Latif, M. A., M. Zashimuddin, M. K. Hossain, S. A. Islam and J. Davidson

1985. Coppice production from three eucalypt species. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 117-134.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus camaldulensis*,
E. tereticornis and
E. brassiana
Sites : Dinajpur and Tangail,
 Bangladesh
Year Started : 1983
Year Completed : 1985
Notes : -

89.

Lekhaviwattakul, Tuanjai, Komon Pragthong, Sutep Bunprakong and Bunvong Thaiutsa

1984. Effects of fertilization on growth of Eucalyptus. Proceedings of the Forestry Conference, Royal Forest Department, 3:532-544.

Language : Thai
Key Words : fertilization, growth,
 biomass
Executing Agency : RFD

Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Changwat Yasothon,
 Roi Et, Maha Sarakham,
 Si Sa Ket,
 Thailand (130m)
Year Started : 1984
Year Completed : 1984
Notes : It was found that 0.3 kg
 manure/1 kg soil was recommended for
 Eucalyptus seedling, over 12.5 g area/1 kg
 soil.

90.

Lim, M. T.

1986. Biomass and productivity of 4.5-Year-old *Acacia mangium* in Sarawak. *Pertanika* 9(1):81-87.

Language : -
Key Words : biomass, productivity,
 biomass relationships
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*,
Eucalyptus nitens
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : -
Notes : -

91.

Luangjame, Jesada and Ladda Bunbhakdee

1984. Salt tolerance of selected tree species. Proceedings of the Forestry Conference, Royal Forest Department, 2:55-58.

Language : Thai
Key Words : -
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : -
Sites : Amphoe Muang,
 Changwat Khon Kaen,
 Thailand (174m)
Year Started : 1984
Year Completed : 1984

Notes : This greenhouse study revealed that *E. camaldulensis* was ranked the top in salt tolerance, but NaC concentration should not be greater than 2.0%.

92.

Luangjame, Jesada, Boonchoob Boontawee, Thoenchai Prommun and Udom Chawewannakorn

1984. Species selection for improving saline soils in Northeastern Thailand. Proceedings of the Forestry Conference, Royal Forest Department, 2:174-187.

Language : Thai
Key Words : salt tolerance, growth, survival, *Dipterocarpus* sp.
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang, Changwat Khon Kaen, Amphoe Tha Tum, Changwat Surin, Thailand (174m)
Year Started : 1984
Year Completed : 1984
Notes : *E. camaldulensis* planted on salt-affected soil showed the maximum growth rate and percent survival in comparison to the native trees (*Dipterocarp* sp.) in the Northeast.

93.

Lumdang, Conigunda V. and Bernardo A. Ayala, Jr.

1980. The response on the growth rate and survival of Bagras (*Eucalyptus deglupta* Blume.) seedlings to different levels of NPK fertilizer (14-14-14). Undergraduate Thesis. DMMMSU-CAF, Bacnotan, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF

Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Forest Research Area, Sapilang, Bacnotan, La Union, Philippines

Year Started : 1980

Year Completed : 1980

Notes : The study was conducted primarily to determine the response on the growth rate and survival of Bagras seedlings to different levels of NPK fertilizer (14-14-14). Treatments used in this study were as follows: A-control, B-50grams of complete fertilizer, C-100 grams of complete fertilizer, D-150 grams of complete fertilizer. The results of the study revealed that treatment C gave the highest growth increment with a total mean of 25.30 cms, followed by treatment D, B and A, with a total mean of 24.21, 23.23 and 9.51 centimeters, respectively. Furthermore, treatment C attained the highest mean height at 41.71 centimeters and followed by B, D, and A with a corresponding mean of 36.21, 35.38, and 12.05 centimeters, respectively. Percentage survival of the seedlings was found to be one hundred percent (100%).

94.

Macanas, Perfecto L. and Rico G. Brado

1985. Performance of outplanted Bagras (*Eucalyptus deglupta* Blume.) seedlings as affected by different levels of chicken manure application.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Experimental Nursery, Sapilang, Bacnotan, La Union, Philippines

Year Started : 1984

Year Completed : 1985

Notes : The unfertilized and fertilized seedlings of bagras increment, average monthly diameter increment, final diameter and final height in six month duration of the study. Plots with

0.133kg/plant had the highest monthly diameter with mean of 0.04cm, 8.06m, 0.82m, 0.56cm, respectively. Plants applied with 0.266kg/plant and the unfertilized plant had the greatest percentage survival with an identical mean of 63.85%. RCBD was laid out with four replication and subdivided into four plots as different treatments as TA - control (no manure), TB - 0.132 kg/plant, TC - 0.266 kg/plant; recommended rate TD - 0.399 kg/plant. Application of chicken manure on four-month old outplanted bagras seedling is not recommended when planted under the canopy of trees.

95.

Malbog, Norma B.

1982. Response of potted bagras (*Eucalyptus deglupta* Blume) seedlings to different levels of NPK fertilizer. Undergraduate Thesis. DMMMSU-CAF, Bacnotan, La Union, Philippines.

Language : English
 Key Words : -
 Executing Agency : DMMMSU-CAF
 Funding Agency : -
 Key Words : -
 Status : CP
 Species : *Eucalyptus deglupta*
 Sites : Agroforestry Nursery, Sapilang, Bacnotan, La Union, Philippines

Year Started : 1981
 Year Completed : 1982
 Notes : The results of the study revealed that plants in treatment B (1g/plant 14-14-14) were the tallest in height and in diameter with a mean of 46.567cm and 0.235cm, respectively, followed by treatment C (1.5g/plant with a mean of 42.608cm. Treatment D (2g/plant and treatment A (control) with a mean of 41.592cm and 41.3cm, respectively. There was a significant result among the treatment on the mean number of leaves produced and was treatment B (10m/plant 14-14-14) that produced the most number of leaves and seedlings fertilized by 2 grams/plant (treatment D) produced the least number of leaves. On the diameter growth seedlings in

treatment B (1 gram/plant) gave the best growth with a mean of 0.235 cm. On the percentage survival, it was treatment D (2 grams/plant) that gave the lowest rate of survival of seedlings. It showed no significant differences among the treatment used on the analysis of variance.

96.

Maun, Marcelino M.

1974. Eucalyptus species trials. PCARRD Terminal Report.

Language : English
 Key Words : species trials, Eucalyptus
 Executing Agency : MFRS
 Funding Agency : -
 Status : CU
 Species : *Eucalyptus camaldulensis*
 Sites : Diadi, NUeva Vizcaya, Philippines

Year Started : 1970
 Year Completed : 1974
 Notes : The early performance of provenances from North Territories; Rome, Italy; Australia; South Australia; Victoria; Bukidnon and Cinchona, Philippines; six from New South Wales; two from Brazil; and four from Queensland is described. Statistical comparisons are made among species and provenances within species for percent survival and for mean height over a period of four years. The mean height and survival percentage were not improved by the different species of Eucalyptus tried in this study. Nor was the mean height increased by the different provenances within species. In survival percentage, significant differences were found among provenances within species. *Eucalyptus camaldulensis* from the Northern Territories and *Eucalyptus saligna* from Brazil produced survival percentages superior to the other provenances.

97.

Mendoza, Valerio B.

1977. Adaptability of six tree species to cogonal areas. Philippine Forest Research

Journal 2(4):225-234.

Language : English
Key Words : adaptability, cogon, box experiment, diameter growth, reforestation species, growth inhibition, nutrient uptake, allelochemicals
Executing Agency : MS Thesis
Funding Agency : PCARR
Status : CP
Species : *Leucaena leucocephala*, *Eucalyptus camaldulensis* Dehnh.
Sites : College, Laguna, Philippines
Year Started : 1976
Year Completed : 1976
Notes : Investigations into the

adaptability of seedlings of ipil-ipil (*Leucaena leucocephala* L. Merrill), Agoha (*Casuarina equisetifolia* Forst.), River red gum (*Eucalyptus camaldulensis* Dehnh.), Benguet Pine (*Pinus kesiya* Royle ex Gordon), Binayoyo (*Antidesma frutescens* Jack) and Alibangbang (*Pilliss stigma malabaricum* Roxb. Benth) to a grassland ecosystem were conducted. Three experiments were set-up: box, leaching and field experiments. This paper reports about the box experiment which dealt with the growth and development of 6 tree species in the presence or absence of cogon. Performance of the seedling in all experiments was evaluated by the growth in height, diameter, dry matter production and survival. Parameters such as microbial populations, soil and air temperature, Light intensity, pH and tissue analysis were determined. Height and diameter growth of seedlings grown in boxes, in the absence of cogon, were generally greater than the height and diameter growth of seedlings grown in the presence of cogon. There were no significant differences in survival among the seedlings raised.

98.

Mhd. Soleh Purba, Yusuf Sudohadi and Ridwan Pasaribu

1988. Sifat papan semen kimia soda dingin

soda panas dari kayu *Acacia mangium* Willd. dan *Eucalyptus urophylla* Blake. BSc Thesis, Faculty of Forestry, IPB

Language : Indonesian
Key Words : pulp cement board properties
Executing Agency : FF
Funding Agency : -
Status : CU
Species : *Acacia mangium*, *Eucalyptus urophylla*
Sites : Indonesia
Year Started : 1988
Year Completed : 1988
Notes : -

99.

Namprasert, Pensri

1984. Eucalyptus species: future source of raw material for pulping in Thailand. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 225-240.

Language : Thai
Key Words : pulp
Executing Agency : RFD
Funding Agency : -
Status : RCP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1984
Year Completed : 1984
Notes : Relatively low yield of pulp was obtained from *E. camaldulensis* through pulping processes of 16% active alkali, 25% sulfidity at 170c for 3 hours.

100.

Nelmida, Virgilio E. and Orlando C. Corpus

1985. Response of outplanted bagras (*Eucalyptus deglupta* Blume) as affected by different kinds of animal manures. Undergraduate Thesis. DMMMSU-CAF, Bacnotan, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -

Status : CP
Species : *Eucalyptus deglupta*
Sites : Forest Research Area, Sapilang, Bacnotan, La Union, Philippines
Year Started : 1984
Year Completed : 1985
Notes : This experiment was conducted to determine the response of outplanted bagras as affected by different kinds of animal manures, in terms of growth and survival. Application of animal manures did not have any significant effect on monthly height increment, final height and final diameter. There were four treatments, A - cattle manure (0.9kg), B - chicken manure (0.2kg), C - swine manure (0.7kg), D - control (no manure application). It showed significant effects on monthly diameter increment and percentage survival. The greatest unfertilized plants the greatest monthly increment with a mean of 0.46 meter but plants applied with swine manure had the biggest monthly increment with mean of 0.03 cm. In terms of percentage survival plants applied with cattle manure had the highest with mean of 91.66% while the unfertilized plants had the lowest mean of 69.4375%. In view of the results, swine and chicken manures application are recommended for five month-old bagras seedlings.

101.

Panyathanya, Winal, Pramuk Thichakorn and Bunyalid Puriyakorn

1986. A study on charcoal's yield of *Eucalyptus camaldulensis* in commercial kilns. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 1:168-178.

Language : Thai
Key Words : charcoal, kilns
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Chom Bung, Changwat Ratchaburi, Thailand (35m)

Year Started : 1986
Year Completed : 1986
Notes : Percentages of charcoal gained from *E. camaldulensis* ranged from 26.58 to 36.13. Burning period varied from 228 to 400 hrs. Optimal moisture content of wood were 30-35%.

102.

Pattanaprapapan, Charal Thongstit, Worakit Sunthonbura

1988. Hardboard from different ages of Eucalyptus. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 192-195.

Language : Thai
Key Words : hardboard
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : Three-year-old *E. camaldulensis* wood can be used for hardboard manufacturing because of its high MOR value, but paraffin addition is recommended. Hardboard made from the 7-yr-old wood is inferior due to its volatile oil, but yield is as high as 80%.

103.

Pattanaprapapan, Somsak, Charal Thongstit and Worakit Sunthonbura

1987. Hardboard from mixed *Dipterocarpus* sp. with other deciduous. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 161-173.

Language : Thai
Key Words : hardboard, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,

Melia azedarach,
Casuarina
junghuhniana

Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Objective: Selected and developed suitability of using mixed *Dipterocarpus* sp. with other deciduous hardwoods in the manufacture of hardboard.

104.

Pattaratuma, Apichart

1988. Prediction of *Eucalyptus camaldulensis* production in some northeastern provinces. Thai Journal of Forestry 7(2):157-168.

Language : Thai
Key Words : production, northeast
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*

Sites : Changwat Udon Thani, Khon Kaen, Nakhon Ratchasima, Thailand (174m)

Year Started : 1987
Year Completed : 1987
Notes : *E. camaldulensis* could be merchandised within 4 years. If the planted areas in 1987-1991 are fixed, thus, the predicted commercial growing stock will be at least 97, 938, 192, 656, 303, 481, 439 and 679 cu.m.

105.

Penafiel, Samuel R.

1984. Determination of plant species for fuelbreaks. Philippine Forest Research Journal 9(1-2):21-31.

Language : English
Key Words : fuelbreaks, fire control, fire-resistant species
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*

Sites : Tuba, Benguet, Philippines

Year Started : -

Year Completed : -

Notes : Five plant species namely: *Alnus japonica*, *Eucalyptus camaldulensis*, *Lantana camara*, *Tithonia diversifolia* and *Agava cantala* were planted in combinations in a spur ridge to determine which species are suitable for planting in fuelbreaks. Six months after a fire burned the strips of greenbreaks/fuelbreaks, all of the species except *Alnus* resprouted and developed a much thicker vegetal cover. Apparently, *Eucalyptus camaldulensis*, *Agava cantala*, *Tithonia diversifolia* and *Lantana camara* withstood the scorching effects of the wild fires manifesting adaptations and resistance to fire.

106.

Petmak, Pitaya and Chakrapol Chakrapolwararit

1986. Silvicultural Research Bulletin. Royal Forest Department. 1:39-55.

Language : Thai
Key Words : agroforestry, economic, soil properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Thailand (130m)

Year Started : 1984
Year Completed : 1984
Notes : -

107.

Petmak, Pitaya and Somboon Bunyuen

1989. Proceedings of the Forestry Research. Royal Forest Department. Silvicultural Section 2:217-223.

Language : Thai
Key Words : soil properties, yield crops
Executing Agency : RFD
Funding Agency : -

Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala
Sites : King Amphoe Nam
Kliang, Changwat Si Sa
Ket, Thailand
(130m)
Year Started : 1985
Year Completed : 1988
Notes : -

108.

Petmak, Pitaya, Boonchoob Boontawee and Somboon Kiratiprayoon

1988. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 1.

Language : Thai
Key Words : biomass, volume table
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kantharom,
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1988
Year Completed : 1988
Notes : -

109.

Petmak, Pitaya, Bopit Kietvuttinon and Boonchoob Boontawee

1989. Some ecological impacts of planting eucalyptus in agricultural area. Proceedings of the Forestry Conference. Royal Forest Department, Silvicultural Section 1:1-16.

Language : Thai
Key Words : ecology, agricultural
area
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis
Sites : King Amphoe Nam

Kliang, Changwat Si
Sa Ket (130m)

Year Started : 1977
Year Completed : 1977
Notes : *E. camaldulensis* gave
no harmful effects on the site and crop
yields compared to *A. auriculiformis* during
the 4 year rotation. Crop yields gained from
the Eucalyptus plot were higher than the
Acacia plot.

110.

Petmark, Pitaya and Bopit Kietvuttinon

1984. The roles of agroforestry system on forest and rural development. Proceedings of the Forestry Conference, Royal Forest Department, 1:65-101.

Language : Thai
Key Words : agroforestry, firewood
production,
construction timber,
economics
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala
Sites : Amphoe Kantharom,
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1978
Year Completed : 1984
Notes : An agroforestry system
was carried out in order to evaluate growths
and yields of various crop combinations
planted in spacing 4*4m.

111.

Petmark, Pitaya, Bopit Kietvuttinon and Boonchoob Boontawee

1987. Some ecological impact of planting Eucalyptus in agricultural area. Thai Journal of Forestry 6(3):362-374.

Language : Thai
Key Words : ecology, agroforestry
Executing Agency : RFD
Funding Agency : -
Status : CP

Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1987
Year Completed : 1987
Notes : Four year old *E. camaldulensis* showed no harmful effect on site and crop yields, but eight year old trees decreased crop yield due probably to a higher rate of nutrient uptake from the soil. Soil nutrient increase for *Acacia* was 48.38% while for *Eucalyptus* it was 32%.

112.

Petmark, Pitaya, Somboon Kiratiprayoon, Somboon Boonyuen and Boonchoob Boontawee

1987. Stem biomass and volume table of *Eucalyptus camaldulensis*. Thai Journal of Forestry 6(3):399-413.

Language : Thai
Key Words : stem, biomass, volume table
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1987
Year Completed : 1987
Notes : Tables were expected to be applicable to other *E. camaldulensis* plantation with standard deviation of +1.2 kg for biomass and +1.3m³ for stem biomass.

113.

Phaosatcha, Roengchai

1985. Plantation for pulp industry. Proceedings of the Forestry Conference. Royal Forest Department. 1:53-69.

Language : Thai
Key Words : pulp, plantation

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1985
Year Completed : 1985
Notes : Tree plantation for pulp industry was discussed 4-5 m³ of roundwood was required for 1 ton of pulp. A factory capacity of 50,000 ton pulp per year required 250,000 m³ roundwood per year with an annual planting size of 1,000 ha.

114.

Phaosatcha, Roengchai and Prasit Sa-ardawut

1984. Species and provenance trials of *Eucalyptus*. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 32-44.

Language : Thai
Key Words : species trial, provenance trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *E. citriodora*
Sites : Australia and Thailand
Year Started : 1984
Year Completed : 1984
Notes : *E. camaldulensis*, especially Gibb River provenance, had a wide range of adaptability to various environmental conditions.

115.

Pimmanrotchanakul, Wirat

1984. Volume tables of *Eucalyptus camaldulensis* in fuelwood plantation. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 192-202.

Language : Thai
Key Words : fuelwood, volume table
Executing Agency : RFD
Funding Agency : -

Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1984
Year Completed : 1984
Notes : Volume table of *E. camaldulensis* was established. It was applicable to trees having DBH 0-15 cm.

116.

Pitpricha, Koetkong, Somboon Kiratiprayoon, Thiti Wisarat and Chingchai Wiriyabancha

1989. Some mensuration characteristics of *Eucalyptus camaldulensis* Dehnh. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:73-111.

Language : Thai
Key Words : mensuration
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Cnangwat Chiangmai, Ratchaburi, Khon Kaen, Kamphaeng Phet, Thailand (400m)
Year Started : 1981
Year Completed : 1986
Notes : -

117

Pong-anunt, Kowit

1988. Root cutting of young shoots coppicing from stump of *Eucalyptus camaldulensis* Dehnh. Proceedings of the Forestry Conference, Royal Forest Department, 2.

Language : Thai
Key Words : root cutting, environment, hormone
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*

Sites : Amphoe Muak Lek, Changwat Saraburi, Thailand (45m)
Year Started : 1982
Year Completed : 1982
Notes : -

118.

Pongpanit Krutsana, Aniwat Chaloepong and Theerawat Buntaweekul.

1988. Seedling disease in Sakaerat nursery. Proceedings of the Forestry Conference, Royal Forest Department 2.

Language : Thai
Key Words : fungi, seedling
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Melia azedarach*, *C. siamea*
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (300m)
Year Started : 1985
Year Completed : 1985
Notes : -

119.

Pongumphai, Somnuek and Niwat Ruangpanit

1984. Species composition and phytomass of undergrowth under different kinds of trees and spacings in forest plantation. Thai Journal of Forestry 3(4):241-252.

Language : Thai
Key Words : grass, growth, biomass
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Melia azedarach*, *Eucalyptus camaldulensis*
Sites : Amphoe Dan Chang, Changwat Suphan Buri,

Thailand (45m)
Year Started : 1983
Year Completed : 1983
Notes : *Pennisetum polytachyon* and *Eupatorium odoratum* were the main undergrowth species, comprising of more than 80% of the total phytomass.

120.

Potipak, Prasert

1983. Experiment on tree planting with agricultural crops. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section, 105-112.

Language : Thai
Key Words : agroforestry
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Melia azedarach,
Eucalyptus camaldulensis,
A. indica,
Casuarina junghuhniana

Sites : Amphoe Muang,
 Changwat Saraburi,
 Thailand (45m)

Year Started : 1983

Year Completed : 1983

Notes : Forest trees planted in agroforestry systems grew faster than those planted in non-agroforestry systems. *H. sabdariffa* is popularly known as "Krajiap".

121.

Prajit, Prasert

1983. Preliminary study on growth of *Eucalyptus camaldulensis* Dehnh. and *Acacia auriculiformis* A. Cunn. planted with agricultural crops at Dankunthod Nakornratchasima. Master of Science in Forestry Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : agroforestry, growth, biomass, soil properties,

nutrient concentration
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*

Sites : Amphoe Dan Khun
 Thot, Changwat Nakhon
 Ratchasima,
 Thailand (300m)

Year Started : 1983

Year Completed : 1983

Notes : There were significant differences in growth among forest plant species planted with and without agricultural crops, but there was no biomass.

122.

Fromachotkool, Montree and Chalyaporn
 Ounjittichai

1985. Study on the manufacture of veneer and plywood from *Eucalyptus camaldulensis* Dehnh. Proceedings of the Forestry Conference. Royal Forest Department. 2:350-357.

Language : Thai
Key Words : properties, chemical properties, veneer, plywood

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*

Sites : Amphoe Kanthararom,
 Changwat Si Sa Ket
 (130m)

Year Started : 1985

Year Completed : 1985

Notes : Ciba aerolite FFD and Diabond D 201 values for gluing compatibility of *E. camaldulensis* were of 23.14 and 21.62 kg/cm², respectively.

123.

Promachotkool, Montree and Chalyaporn
 Ounjittichai

1987. Effect of wood density on veneer

shrinkage. Proceedings of the Forestry Conference, Royal Forestry Department, Forest Products Section, 175-196.

Language : Thai
Key Words : veneer, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Leucaena leucocephala
Sites : Changwat Si Sa Ket,
Kanchanaburi, Saraburi,
Thailand (35-130m)
Year Started : 1987
Year Completed : 1987
Notes : Shrinkage degree of
veneer manufactured from *E. camaldulensis*
and *L. leucocephala* increased with
increasing wood density.

124.

**Promachotikool, Montree, Chaiyaporn
Ounjittichai and Somsak Pattanaprapapan**

1986. Study on the manufacture of interior plywood from *Eucalyptus camaldulensis* Dehnh., *Hevea brasiliensis* Muell. Arg. and *Dipterocarpus baudii* Korth. Proceedings of Forestry Conference, Royal Forest Department, Forest Product Section, 1:73-102.

Language : Thai
Key Words : plywood, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Karthararom,
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1986
Year Completed : 1986
Notes : *E. camaldulensis* is
suitable for interior plywood if it is boiled at
70c in alkali solution having pH 11-12 for 6
hrs.

125.

**Promachotikul, Montree and Chaiyaporn
Ounjittichai**

1987. Study on the manufacture of plywood from *Eucalyptus camaldulensis* Dehnh. Thai Journal of Forestry 6(3):379-391.

Language : English
Key Words : plywood, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus
camaldulensis*
Sites : Amphoa Kanthararom,
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1987
Year Completed : 1987
Notes : Interior plywood
preheating at 70c, NaOH(pH 11-12) could
slightly prevent area of free split, expand and
increase veneer yield. Exterior plywood at
preheated 70c for 24, 48, 78hrs; at 80c for 6,
12hrs; or NaOH (pH11-12) at 70c for 6, 12,
24hrs. could be of good quality.

126.

Prommun, Toenchai

1984. Seed collection, seed storage, seed germination of *Eucalyptus camaldulensis* Dehnh. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 70-89.

Language : Thai
Key Words : seed collection, seed storage, seed germination
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus
camaldulensis*
Sites : Thailand
Year Started : 1984
Year Completed : 1984
Notes : Seed could be stored as
long as 10 years at 4-8% moisture content.

Germination rate varied with environmental conditions and seed-tree maturity.

127.

Rahman, M. M., Md. Shahjahan and M. M. Hoque

Study on the improvement of existing homestead vegetation by introducing improved annual and perennial fruit trees.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Mangifera indica*,
Artocarpus integrifolia,
Leucaena leucocephala
 and *Eucalyptus camaldulensis*
 Sites : F.S.R. site, Narikeli,
 Jamalpur, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

128.

Ramilo, Virgilio C.

1981. Field performance of top-pruned, over-grown bagras (*Eucalyptus deglupta* Blume) seedlings in PICOP Central Nursery. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
 Key Words : top-pruned, overgrown bagras, microclimate
 Executing Agency : MS Thesis
 Funding Agency : PICOP
 Status : CU
 Species : *Eucalyptus deglupta*
 Sites : Bislig, Surigao del Sur, Philippines (121 meters)
 Year Started : 1980
 Year Completed : 1981
 Notes : Field performance of overgrown seedlings as affected by seedling sizes, pruning heights and hardening periods was compared to standard plantable bagras

seedlings of PICOP. Microclimatic growth factors (soil temperature, air temperature, relative humidity and soil moisture content) in the experimental area and the economic feasibility of salvaging overgrown bagras seedlings based on the cost of production and field performance were evaluated. Standard size planting stock of PICOP with height 15-30 cm. showed best field performance in terms of survival height and diameter growth and the top-root dry weight and height-diameter ratios. Overgrown bagras seedlings with height 31-60 cm could be utilized for outplanting, if pruned to 15-23 cm and immediately planted after pruning. Microclimate in the experimental area showed low correlation with diameter growth performance of the seedlings. Correlation was observed between soil temperature and relative humidity with correlation coefficient values of 0.94 and 0.85, respectively. Salvaging 3 months overgrown bagras seedlings, top pruned to 15-22 cm and immediately planted after pruning is found economically feasible and is the best alternative planting stock to the standard plantable seedlings of PICOP.

129.

Rao, Y. S.

1984. *Eucalyptus camaldulensis*: Experience in the Asia- Pacific Region. Proceedings of *Eucalyptus camaldulensis* Seminar, Royal Forest Department, 14-31.

Language : Thai
 Key Words : biology characteristics, Asia-Pacific Region
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Asia-Pacific Region
 Year Started : 1984
 Year Completed : 1984
 Notes : *Eucalyptus* and role in community forestry is worth re-examining to determine the species with the greatest potential in the developing countries of this region.

130.

Rathakette, Pagarat

1987. Practice of *Eucalyptus camaldulensis* by small farmers. Proceedings of the Forestry Conference. Royal Forest Department. Forest Biology, Natural and Environmental Conservation, Social Forestry, General Forestry. Forest Administration Section, 151-160.

Language : Thai
Key Words : agroforestry, small farmers
Executing Agency : KKU
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang, Changwat Khon Kaen, Thailand (174m)

Year Started : 1987

Year Completed : 1987

Notes : Farmers chose to plant trees along the sides of fields, bodies of water and roads, rather than in special woodlots. After planting out, they could not afford the time to look after them due to more important duties of earning a living.

131.

Rativanich, Tasnee and Ratchaniwan Charoenwannaying

1985. Sugar and phenolic compound analysis on *Eucalyptus camaldulensis* wood. Proceedings of the Forestry Conference. Royal Forest Department. 2:372-378.

Language : Thai
Key Words : wood chemical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)

Year Started : 1985

Year Completed : 1985

Notes : Higher free sugar in sapwood than in heartwood. Sugar from

wood analysis was observed at lower parts of stem. Tannin was only phenolic compound found.

132

Rativanich, Tasnee, Arnnop Abhijatabutr, Pensri Namprasert, Supastri Chensuthiwetchakul, and Wichit Sonthivanich

1982. Sulphate pulping of *Eucalyptus camaldulensis* Dehnh. and *Eucalyptus citriodora* Hook. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section, 143-156.

Language : Thai
Key Words : pulp
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Changwat Kanchanaburi, Thailand (250m)

Year Started : 1982

Year Completed : 1982

Notes : Based on sulphate pulping, *E. camaldulensis* could produce satisfactory pulp

133.

Rativanich, Tasnee, Wichit Sonthivanich, Arnnop Abhijatabutr, Pensri Atiwannapat, and Ratana Mormanee

1987. Suitable ages of *Eucalyptus camaldulensis* Dehnh. for pulping. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 261-289. Thai Journal of Forestry 6(3): 414-436.

Language : Thai
Key Words : rotation, pulp
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang, Changwat Kanchanaburi, Thailand (45m)

Year Started : 1987
Year Completed : 1987
Notes : *E. camaldulensis* had short fiber but high cellulose content. Appropriate condition for pulping was 12-16% active alkali with cooking time of 3 hours. Appropriate rotation should be 3-6 years.

134.**Ratthakhet, Pagarat**

1989. Role of on-farm planted fast-growing trees in supporting the Green Northeast Project. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:17-29.

Language : Thai
Key Words : fast-growing trees, agroforestry
Executing Agency : KKU
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Casuarina junghuhniana*, *Leucaena leucocephala*, *Bamboo* sp.
Sites : Northeastern Thailand
Year Started : 1984
Year Completed : 1989
Notes : Fast-growing trees are suitable to be grown on farm land because of their marketability, rapid growth and low maintenance requirements.

135.**Rattivanich, Tasnee and Arnnop Abhijatabutr**

1985. Chemical properties of *Eucalyptus camaldulensis* Dehnh. Proceedings of the Forestry Conference. Royal Forest Department. 2:330-337.

Language : Thai
Key Words : chemical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*

Sites : Thailand
Year Started : 1985
Year Completed : 1985
Notes : Young-growth, 3-year-old *E. camaldulensis* was found to be more suitable to industrial uses than older trees (10-15 years old) due to lower lignin and sugar contents in young growths.

136.**Rimando, Elpidio F.**

1983. Early stage of heart rot disease of bagras (*Eucalyptus deglupta* Blume) in the Paper Industries Corporation of the Philippines. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : heart rot, fruiting body, pathological rotation, cull indicators
Executing Agency : MS Thesis
Funding Agency : FORI
Status : CU
Species : *Eucalyptus deglupta*
Sites : Bislig, Surigao del Sur, Philippines (150 to 400 meters)
Year Started : -
Year Completed : -
Notes : Five genera of fungi (*Trichoderma*, *Cephalosporium*, *Fusarium*, *Penicillium* and *Thelephora*) were found associated with the early stage of heart rot disease of bagras trees. The cull indicators observed were swollen stems, branch stubs, wounds, dead branches, termite infestation and a fruiting body. Termite attacks was also evident with the termites maintaining a humid environment in the wood by constructing shelter tubes from the soil to the wood and leaving their galleries with fecal matter. Results of this study show that with advancing tree age, gross volume, cull volume, net volume, percent cull, mean annual increment and mean annual rate of decay also became higher. Likewise, it has been noted that there was an increase in diameter breast height and merchantable height resulting in a proportional increase in gross volume, cull volume, net volume, mean

annual increment, and mean annual rate of decay. Tree age was significantly correlated with gross volume, net volume, and mean annual increment, while high correlation of both diameter breast height and merchantable height with gross volume and mean annual increment was likewise observed. It was found that pathological rotation for the heart rot disease in bagras appears to be longer.

137.

Ruaisungnoen, Saman and Weera Pukcharun

1983. Infiltration rate under some ground cover species. Proceedings of the Forestry Conference. Royal Forest Department. Natural and Environmental Conservation Section, 19-29.

Language : Thai
 Key Words : infiltration, ground cover
 Executing Agency : RFD
 Funding Agency : -
 Status : -
 Species : *Eucalyptus camaldulensis*,

Melia azedarach,
Leucaena leucocephala
 Sites : Amphoe Khon San,
 Changwat Chaiyaphum,
 Thailand (300m)

Year Started : 1983
 Year Completed : 1983
 Notes : *M. azedarach* and
Eucalyptus spp. were recommended to be
 planted for soil and water conservation.

138.

Sa-ardawut, Prasit and Attaporn Tularak

1986. Silvicultural Research Bulletin. Royal Forest Department. 2:342-346.

Language : Thai
 Key Words : species trial
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Muang,

Changwat Tak,
 Thailand (400m)

Year Started : 1984
 Year Completed : 1984
 Notes : -

139.

Sa-ardawut, Prasit

1985. Perception on planting *Eucalyptus* in Thailand. Proceedings of the Forestry Conference. Royal Forest Department. 1:70-84.

Language : Thai
 Key Words : provenance trials,
 utilization, pulp,
 cost and return,
 environmental impacts

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Eucalyptus camaldulensis*

Sites : Thailand

Year Started : 1985

Year Completed : 1985

Notes : Planting *E.*

camaldulensis in Thailand was reviewed and discussed in several aspects including provenance trials, utilization, cost, benefit and environmental impacts.

140.

Sa-ardawut, Prasit and Attaporn Tularak

1986. Spacing trial of *Eucalyptus camaldulensis* Dehnh. Silvicultural Research Bulletin. Royal Forest Department. 1:121-126.

Language : Thai
 Key Words : spacing trial
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Muang,
 Changwat Tak, Thailand
 (400m)
 Year Started : 1984

Year Completed : 1984
Notes : -

141.**Sa-ardawut, Prasit and Atthaporn Turaluk**

1986. Effect of drought on growth of *Eucalyptus camaldulensis*. Silvicultural Research Bulletin. Royal Forest Department. 1:168-175.

Language : Thai
Key Words : species trial, drought area
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang, Changwat Tak, Thailand (400m)
Year Started : 1984
Year Completed : 1984
Notes : -

142.**Sa-ardawut, Prasit**

1984. Provenance trials of *E. camaldulensis* in Thailand. Proceedings of the Forestry Conference, Royal Forest Department, 3:506-531.

Language : Thai
Key Words : provenance trial, survival
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Mae Taeng, Hot Changwat, Chiang Mai, Amphoe Tha Tum, Changwat Surin, Amphoe Muang, Changwat Tak,
Year Started : 1978
Year Completed : 1984
Notes : Different provenances of *E. camaldulensis* were recommended for particular planting sites, i.e., Petford and

Mary River for Hot district, Katherine for Tha Tum district and Lennerd River and Finke River for Tak province.

143.**Saha, S.**

Routine purity, moisture content, germination and viability test of all seeds stored in the seed bank.

Language : -
Key Words : -
Executing Agency : BFRI
Funding Agency : IDA
Status : OR
Species : *Acacia auriculiformis*,
A. mangium,
A. nilotica,
Dalbergia sissoo,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Melia azedarach
Year Started : 1988
Year Completed : 1991
Notes : This a laboratory work.

144.**Sahunalu, Pongsak, Chakrapol Chakrapolwararit, Pricha Dhanmanonda and Pitaya Petmark**

1987. Effects of planting density on the production of *Eucalyptus camaldulensis* Dehnh. plantations for the agroforestry system application. Thai Journal of Forestry 6(3): 213-238.

Language : Thai
Key Words : agroforestry, density, biomass, volume
Executing Agency : KUFF/RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1981
Year Completed : 1983
Notes : There were 4 grades:

1,250(2*4m), 625(4*4m), 417(4*6m) and 278(6*6m) trees per hectare. Mean biomass and mean stem volume per tree were inversely correlated to stand density. Dry matter yield and stem volume yield were directly correlated to stand density.

145.

Sahunai, Pongsak, Choob Khemnak, Pricha Dhanmanonda, Monthon Jumroenprucksas, Wiratana Tanplab and Kanit Muangnil

1988. Experiments studies on the utilization of waste lands for reforestation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
 Key Words : plantation, waste land
 Executing Agency : KUFF/RFD
 Funding Agency : JICA
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Acacia mangium
 Sites : Amphoe Takua Pa,
 Changwat Phangnga,
 Amphoe Muang,
 Changwat Ratchaburi,
 Amphoe Somdet,
 Changwat Kalasin,
 Thailand.
 Year Started : 1984
 Year Completed : 1984
 Notes : -

146.

Authors: Buared Prachaiyo, Pornchal Prichachan, Bunyarit Puriyakorn and Samathi, Charin

1986. Experiment on appropriate tree species for peatland reforestation. Proceedings of the Forestry Conference, Royal Forest Department, General Forestry Section, 1-7.

Language : Thai
 Key Words : peatland, growth,
 survival
 Executing Agency : RFD
 Funding Agency : -

Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Tak Bai,
 Changwat Narathiwat,
 Thailand (5-10m)
 Year Started : 1985
 Year Completed : 1986
 Notes : Height growth of
E. camaldulensis planted on peatland
 showed satisfactory results even under the
 long period of 6 months a year under flood.

147.

San Luis, J. M. and C. D. Alano

1985. Mechanical drying of bagras (*Eucalyptus deglupta* Blume) veneers of different thickness. FPRDI Journal 14(1&2):38-46,80.

Language : English
 Key Words : veneers, moisture
 content, shrinkage,
 drying
 Executing Agency : FPRDI
 Funding Agency : NSTA
 Status : CP
 Species : *Eucalyptus deglupta*
 Sites : College, Laguna,
 Philippines
 Year Started : 1981
 Year Completed : 1981
 Notes : Veneers from bagras
(*Eucalyptus deglupta* Blume) were dried in
a roller conveyor type dryer. Controlled
variables were veneer thickness, drying
temperature and drying time. Samples of
veneer using three thicknesses: 1.07, 1.27 and
3.63 mm, were dried at temperatures of 82
degree C (180 degree F), 105 degree C (220
degree F), 138 degree C (280 degree F) and
166 degree C (330 degree F) using two
drying times for each level of temperature.
Internal air velocity was maintained at 365
meters per minute, with airventing stack kept
closed during the tests. Green moisture
content varied between 34% to 103%. There
was a discrepancy between the target dry
moisture content and observed dry moisture
content. This was caused primarily by the
initial moisture content of the veneers. The
shrinkage values showed no significant

pattern of variation for each thickness using different temperatures.

148.

San Lusing, J. M.

1982. Development of veneer-drying schedules of lesser-used and small diameter tree species. Bagras, FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : equilibrium temperature, plywood, face veneer, core material, shrinkage
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Eucalyptus deglupta*
Sites : College, Laguna, Philippines
Year Started : 1973
Year Completed : 1982
Notes : Bagras (*Eucalyptus*

deglupta Blume) logs were rotary-cut into 1.07, 1.27 and 3.63 mm thick veneers using established lathe settings. The veneers were dried at temperature of 82.22, 104.44, 137.77 and 165.55 degrees C using two drying speeds for each level of temperature. Internal air velocity was maintained at 365m/min and air-venting stack was kept closed during the tests. Green moisture content varied between 34 and 103%. There was a wide discrepancy between the target dry moisture content and observed dry moisture content. This may be caused by the failure of the dryer to reach constant equilibrium temperature and the initial wetness of the veneers. The shrinkage values of bagras veneers showed no significant pattern of variation with drying temperature of each thickness. Within the limits of this study, bagras may be utilized only as core material for plywood because of its easy splitting property. However, its color shows a potential for its use as face veneer.

149.

Sangkul, Sutathip and Arunee Jiraungkornkul

1987. The effect of wood destroying fungi on natural durability of *Eucalyptus camaldulensis*. Thai Journal of Forestry 6(3):392-398.

Language : Thai
Key Words : durability, fungal attack
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1986
Year Completed : 1986
Notes : Fungal in this study had *Pycnoporus sanguineus*, *Trametes lactinae*, *Daldinia concentrica*, *Lentinus* sp., *Coriolva* sp., *Gloeophyllum sepiarium*, *Fomitopsis pinicola*, *Schizophyllum commune*, *Haploporous ljubarskyi* and *Termetes cervino-gilvus*.

150.

Sangkul, Sutathip

1987. The virulence of wood destroying fungi (*basidiomyces*) on some hardwood species. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 63-74.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Casuarina junghuhniana*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : *A. auriculiformis* and *E. camaldulensis* were relatively durable to five wood-destroying fungi (*Pycnoporus sanguineus*, *Lentinus* spp., *Coriolus* sp., *Daldenia concentrica* and *Trametes lactinae*) in comparison to *C. junghuhniana*.

151.

Satiwiboon, Pisal

1985. Optimum rotation analysis of *Eucalyptus camaldulensis* plantation by agroforestry system for fuelwood at Kantrarom District, Srisaket Province. Master of Science (Forestry) Thesis, Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : rotation, agroforestry, fuelwood
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1984
Year Completed : 1984
Notes : Interest levels 12%, 13%, 14% and 15% with wood price levels at 80, 90 and 100 baht per cu.m. The result revealed that the optimum rotation period was 3 years. The internal rate of return were 45.34%, 46.03% and 46.70%, respectively.

152.
 Selamat, Khamis B.

1982. Pest and diseases of forest plantation trees with special reference to SAFODA. Proceedings of the Eight Malaysian Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : forest injuries and protection, plantation diseases, defoliators, rodents, squirrels
Executing Agency : FDS
Funding Agency : FDS
Status : CP
Species : *Acacia mangium*, *Pinus caribaea*, *G. arborea*, *Eucalyptus deglupta*
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

153.
 Serrano, Rogelio C.

1982. Effect of management system and katurai (*Sesbania grandiflora* (Linn.) Poir) interplanting on varicose borer (*Agrius sexsignatus* Fisher (Caleoptera : Uprestidae)) attack on bagras (*Eucalyptus deglupta* Blume) plantation. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : varicose borer, management system, interplanting, katurai, bagras
Executing Agency : MS Thesis
Funding Agency : PICOP
Status : CU
Species : *Sesbania grandiflora*, *Eucalyptus deglupta*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : 1980
Year Completed : 1981
Notes : The varicose borer, *Agrius sexsignatus* Fisher, is a worsening pest of bagras plantation in Mindanao. The pest is still unknown in forestry; it is believed to have developed and spread widely with the establishment of wide pure bagras stands inside the concession of PICOP in the last 10 years. Katurai, *Sesbania grandiflora* (Linn.) Poir, was interplanted with bagras to serve as a barrier to the pest. This possible control was developed from the observation that bagras, in combination with other trees in the natural forest, are not attacked by the varicose borer. In such a situation, bagras is comparatively less apparent to the pest than in pure plantation. Results of this investigation indicate a decline in infestation level as measured by the injury indices of the test samples. The decline in injury was attributed to the presence of katurai in the plantation. The effect of interplanting intensity, however, was not clearly understood because all treatment plots showed injury decline. Similarly, the effect of management system was not clearly defined because all treatment plots declined in injury level at the end of the experiment.

154.

Simsiri, Sukhon, Boonchoob Boontawee and Tinnakorn Wuthiwichan

1988. Chemical fertilizer applications to selected forest tree containerized seedlings. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 2.

Language : Thai
 Key Words : fertilization, seedling, growth
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (300m)
 Year Started : 1988
 Year Completed : 1988
 Notes : -

155.

Singh, Daljeet

1982. *Eucalyptus deglupta* - a review with emphasis on wood properties.

Language : -
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Eucalyptus deglupta*
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1982
 Notes : -

156.

Sornngai, Anunt, Boonchoob Boontawee and Tinnakorn Wuttiwichan

1988. The production of *Acacia mangium* Willd., *Leucaena leucocephala* Lam de Wit, *Acacia auriculiformis* Cunn. and *Eucalyptus camaldulensis* dehn. in the 4-year-old plantation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
 Key Words : 4-year-old, biomass, firewood production
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia mangium*, *A. auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*
 Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (350m)
 Year Started : 1983
 Year Completed : 1983
 Notes : -

157.

Subansenee, Wanida and Nuchanat Potchamanpimon

1986. Utilization from *Eucalyptus camaldulensis* Dehn. leaves. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 2:361-370.

Language : Thai
 Key Words : leaves utilization, mordanting, volatile oil
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
 Year Started : 1986
 Year Completed : 1986
 Notes : Eucalyptus leaves can be used as mordant. Volatile oil gained from *E. camaldulensis* leaves is 0.4ml/100g green leaves.

158.

Subansenee, Wanida, Leela Kayikananta and Piyachart Guagool

1988. Pollen analysis which honey bee collected pollen from plants. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 27-40.

Language : Thai
 Key Words : pollen, honey, *Apis mellifera*
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Cassia siamea*
 Sites : Amphoe Muak Lek, Changwat Saraburi, Amphoe Pak Chong, Changwat Nakkon Ratchasima, Thailand (520m)

Year Started : 1988
 Year Completed : 1988
 Notes : Blossom periods of *E. camaldulensis*, *C. siamea* and *L. leucocephala* are year round, while *A. auriculiformis* ranges from June to November for bees.

159.

Suharyadi, Didi, Yahya Fakuara and Soedarmadi

1987. Pengaruh beberapa jenis medium dan penambahan serasah daun terhadap pertumbuhan semai *Eucalyptus alba*. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : medium type, leaf litter
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Eucalyptus alba*
 Sites : Indonesia
 Year Started : 1987
 Year Completed : 1987
 Notes : -

160.

Sutomo

1988. Pengamatan pertumbuhan *A. mangium*, *E. deglupta*, *S. macrophylla* dan *S. walichii* pada berbagai pengolahan tanah. Dept. Kehutanan, Dirjen Reboisasi dan Rehabilitasi lahan, Pebruari.

Language : Indonesian
 Key Words : growth rate, soil cultivation
 Executing Agency : DJRRL
 Funding Agency : DJRRL
 Status : CP
 Species : *Acacia mangium*, *Eucalyptus deglupta*, *S. macrophylla*, *Schima walichii*
 Sites : Indonesia
 Year Started : 1987
 Year Completed : 1987
 Notes : -

161.

Sutomo

1988. Uji coba penyiangan, pemangkasan dan pembebasan *Acacia mangium*, *Eucalyptus deglupta* dan *Schima walichii* var. bancana. Departemen Kehutanan, Dirjen Kehutanan Reboisasi dan Rehabilitasi Lahan, Oktober.

Language : Indonesian
 Key Words : cultivation techniques
 Executing Agency : DJRRL
 Funding Agency : DJRRL
 Status : CP
 Species : *Acacia mangium*, *Eucalyptus deglupta*, *S. macrophylla*, *Schima walichii*
 Sites : Indonesia
 Year Started : 1988
 Year Completed : 1988
 Notes : -

162.

Suwannapinunt, Wisut

1987. Analytical review on ecological problem of *Eucalyptus*. Thai Journal of Forestry 6(3):309-336.

Language : Thai
Key Words : soil, water, allelopathy, weediness
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Effects of planting eucalyptus to other tree species. There are no grounds for believing that planting eucalyptus may cause any adverse effects on the soil and the site. They could be planted in Thailand without any fears of site deterioration.

163.

Talingdan, Marissa V. and Teofilo M. Mabanta

1985. Performance of outplanted bagras (*Eucalyptus deglupta* Blume) seedlings as affected by varying rates of cattle manure application. Undergraduate Thesis. DMMMSU-CAF. Bacnotan, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Experimental Nursery Area, Sapilang, Bacnotan, La Union
Year Started : 1984
Year Completed : 1985
Notes : To determine the varying rates of cattle manures when applied would give the best growth performance in terms of height and diameter. Treatments used in the study followed A (control), B-(444g/seedling), C-(888g/ seedling), D-(1332g/seedling). On mean monthly height increment, treatment D had the highest with 4.77cm while treatment B with 4.06cm had the lowest. Final height treatment D attained the highest with 83.45cm while treatment B had the lowest with 79.95cm.

Treatment A with 0.568cm had the biggest final diameter with treatment B had the least with 0.545 cm. Treatment C and D had the highest percentage survival of bagras seedlings. Therefore, fertilization of bagras with cattle manure is not recommended.

164.

Tamolang, Felix B. and Jesus E. Rocafort

1987. Physio-mechanical properties and possible uses of eleven plantation-grown timber species in the Philippines. FPRDI Journal 16(1):75-85.

Language : English
Key Words : volumetric shrinkage, bending, shear, compression, hardness, toughness

Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Eucalyptus deglupta*, *Lucaena leucocephala*, *Albizia falcata*, *Gmelina arborea*
Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : This study presents the indicative average physical and mechanical properties of 11 plantation-grown timber species in the Philippines. The properties were determined from tests on small clear specimens of timber. Properties studied include relative density, shrinkage, bending, compression-parallel-to-grain and compression-perpendicular-to-grain, hardness and toughness. Based on the classification of the species in accordance with the five physico-mechanical property groupings devised by FPRDI, (a) Giant ipil-ipil, Benguet pine, big leafed mahogany, yemane and teak are recommended for medium construction purposes; (b) Para-rubber for moderately light construction; and (c) Kaatoan bangkal, moluccan sau, gubas, bagras and lumbang for light construction purposes where strength and durability are not critical requirements. The values presented only apply to defect-free materials

and care should be taken when they are used for structural design purposes.

165.

Tan, K. C. and N. Jones

1982. Fast-growing hardwood plantations on logged-over forest sites in Sabah. Malaysian Forestry 45(4).

Language : English
 Key Words : forest policy, forestation programmes, compensatory plantation, objectives, yield
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Albizia falcataria*,
Eucalyptus deglupta,
Gmelina arborea
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

166.

Tanpibal, Wiratana and Boonnarong Thaneerat

1983. The afforestation of *Eucalyptus* sp. on mine spoil land. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 57-64.

Language : Thai
 Key Words : spacing, fertilization, growth, mine spoil
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Takua Pa, Changwat Phangnga, Thailand (40m)
 Year Started : 1980
 Year Completed : 1980
 Notes : The best result of *E. camaldulensis* growth was gained from 2*2 m spacing in combination with 15-15-15 fertilizer application on mine spoil land.

167.

Thaingam, Rattana, Boonchoob Boontawee, Pisan Kuwalairat and Anunt Sorngal

1988. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 2.

Language : Thai
 Key Words : plantation, silvicultural system
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *M. azedarach*,
A. auriculiformis,
Eucalyptus camaldulensis,
Acacia mangium,
Leucaena leucocephala
 Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)
 Year Started : 1982
 Year Completed : 1987
 Notes : -

168.

Thaipet, Suchart and Sakpichit Chunlarurk

1985. Physical and mechanical properties of *Eucalyptus camaldulensis* Dehnh. Proceedings of the Forestry Conference. Royal Forest Department. 2:379-388.

Language : Thai
 Key Words : physical properties, chemical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
 Year Started : 1985
 Year Completed : 1985
 Notes : 20-year-old
E. camaldulensis wood was investigated and found the 0.9 g/cc density, 1,495 kg/cm² bending strength and 816 kg indentation which were higher than the standard values of Thai hardwood species.

169.

Thalutsa, Bunvong and Siripun Taweesuk

1987. Eucalyptus plantation in Thailand.

Thai Journal of Forestry 6(3): 437-443.

Language : English
Key Words : plantation, economics
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Cost of plantation for 5 yr. was 2,677 baht per rai with an annual net profit of 815 baht per rai and current stumpage of 450 ba. per ton. Only plantation located within the radius of 200 km from woodchip factory would be economically viable.

170.

Thalutsa, Bunvong, Komon Pragthong, Sutep Boonprakong

1983. Planting *Eucalyptus* in Thung Kula Ronghai. Proceedings of the Forestry Conference, Royal Forest Department, General Forestry Section, 45-56.

Language : Thai
Key Words : soil properties, growth
Executing Agency : KUFF/RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Changwat Maha Sarakham, Si Sa Ket, Roi Et, Yasothon (114-115m)
Year Started : 1982
Year Completed : 1982
Notes : Growth rate of tested *E. camaldulensis* was rather slow due to very low soil, pH, and macronutrients besides drought in dry season and flooding in rainy season. Fertilization was recommended.

171.

Thalutsa, Bunvong, Mayuri Tiravarinyut and Tuanjai Lekhaviwattakul

1988. Kinds and rates of fertilizers suitable to two-year-old eucalypt planted at Thung Ronghai, Roi Et Province. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 1.

Language : Thai
Key Words : fertilization, saline soil
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Suwannaphum, Changwat Roi Et, Thailand (420m)
Year Started : 1984
Year Completed : 1985
Notes : -

172.

Tomboc, Carlos C.

1977. Growth yield and economic rotation of bagras pulptimber in the PICOP plantations (Mindanao). Philippine Forest Research Journal 2(2):117-126.

Language : English
Key Words : yield prediction, economic resistance, basal area factor, bagras
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Eucalyptus deglupta*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : -
Year Completed : -
Notes : The coefficient of determination is almost perfect, 99.5%. The equation was fitted as a function of diameter at breast height and merchantable height by the least square method. A yield prediction of the Paper Industries Corporation of the Philippines (PICOP) has been developed. It consists of a site index guide equation and a stand volume equation. Data used in the formulation of the model were gathered

from 135 temporary plots located in all the commercial Bagras stands of PICOP, by point sampling employing all improvised sampling sticks having a basal area factor of 2 meters 2 per hectare. The model was fitted by ordinary least squares through multiple stepwise regression method using the IBM 1620 computer; it was validated against an independent set of 28 yield plots which were all found to belong to the same linearized structure as the stand volume equation derived.

173.

Tulong, Ivan S. T., Yadi Setiadi and Wiratmoko Sukotjo

1986. Pengaruh pemupukan terhadap pertumbuhan semai *Eucalyptus urophylla* blake pada media semai yang berbeda. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : fertilization, seedling medium
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Eucalyptus urophylla*
 Sites : Indonesia
 Year Started : 1986
 Year Completed : 1986
 Notes : -

174.

Visuthidhepakul, Suthi

1987. Lumbering 6-year-old *Eucalyptus camaldulensis*. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 1-8.

Language : Thai
 Key Words : 6-year-old, mechanical properties, gang saw
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Somdet, Changwat Kalasin, Thailand (320 m)
 Year Started : 1987

Year Completed : 1987

Notes : Bow and spring of *E. camaldulensis* lumber sawn by gang saw were the result of growth stress relief which could be reduced by lumbering with band saw. Pressing lumber during season could reduce 51.4% bow and 26.3% spring.

175

Wasuwanit, Pisan

1984. Storage of *Eucalyptus camaldulensis* seed. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 56-69.

Language : Thai
 Key Words : seed storage
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Thailand
 Year Started : 1984
 Year Completed : 1984
 Notes : It was recommended to store *E. camaldulensis* seeds in refrigerator, if storage period is up to 3 years. It should be stored at a temperature of 3-5C if the storage period is longer than 5 years.

176.

Wattakun, Weera

1984. Eucalyptus village woodlot at Maha Sarakham province. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal forest Department. 320-327.

Language : Thai
 Key Words : social forestry, firewood production
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*
 Sites : Amphoe Muang, Kosum Phisai, Chaing Yun, Changwat Maha Sarakham, Thailand (300m)

Year Started : 1982
Year Completed : 1984
Notes : Planting *E. camaldulensis* in Maha Sarakham province was promoted in order to overcome the problem of fuelwood shortage. This tree species were able to grow well under conditions of Maha Sarakham.

177.

Why, Kong Hoi

1987. Fuelwood trees for rural industries. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : fuelwood, smoking of rubber sheets, tobacco curing, brick making

Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Hevea brasiliensis*,
Rhizophora apiculata,
R. mucronata,
Melaleuca cajuputi,
Vitex sp., *Albizia falcata*,
Gmelina arborea, *Acacia mangium*,
Eucalyptus deglupta

Sites : Kepong, Malaysia
Year Started : 1985
Year Completed : -
Notes : -

178.

Wisniarsari, Tri, Yahya Fakuara and Soedarmadi

1989. Pengaruh pemberian pupuk kotoran ayam pada medium serbuk gergaji terhadap pertumbuhan bibit *Eucalyptus deglupta* Blume dan *Eucalyptus urophylla* Blake. B.Sc. Thesis, Faculty of Forestry, Kehutanan IPB.

Language : Indonesian
Key Words : saw dust
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Eucalyptus deglupta*,

E. urophylla

Sites : Indonesia
Year Started : 1989
Year Completed : 1989
Notes : -

179

Wisuppakan, Kamon

1984. *Eucalyptus camaldulensis* seed collection. Proceedings of *Eucalyptus camaldulensis* Seminar. Royal Forest Department. 46-55.

Language : Thai
Key Words : seed collection, seed extraction, seed storage

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Australia and Thailand
Year Started : 1984
Year Completed : 1984
Notes : It was recommended to collect *E. camaldulensis* seeds from 5-year-old trees. Seeds should be clean and stored in low temperature conditions.

180.

Wisuppakan, Kamon

1986. Agroforestry plantation for rural energy development. Silvicultural Reserach Bulletin. Royal Forest Department. 1:56-61.

Language : Thai
Key Words : MPTS, agroforestry, firewood production
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *A. indica*,
A. auriculiformis,
C. siamea,
Leucaena leucocephala,
Eucalyptus camaldulensis
Sites : Amphoe Mae Tang,
Changwat Chiang Mai,
Thailand (400m)
Year Started : 1984

Year Completed : 1984
Notes : -

181.

Wisuppakan, Kamon

1986. *Eucalyptus* species trial. Silvicultural research Bulletin. Royal Forest Department. 2:447-456.

Language : Thai
Key Words : species trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai, Thailand (400m)
Year Started : 1984
Year Completed : 1984
Notes : -

182.

Wisuppakan, Kamon

1986. Growth of five species in biomass studies of sample plot. Silvicultural Research Bulletin, Royal Forest Department. 1:158-167.

Language : Thai
Key Words : MPTS, biomass, spacing trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *C. siamea*, *Leucaena leucocephala*, *A. indica*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai (400m)
Year Started : 1984
Year Completed : 1984
Notes : -

183.

Wisuppakan, Kamon

1986. Provenance trials of *Eucalyptus camaldulensis*. Silvicultural Research Bulletin. Royal Forest Department. 2:457-465.

Language : Thai
Key Words : provenance trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai, Thailand (400m)
Year Started : 1984
Year Completed : 1984
Notes : -

184.

Wittaya-udom, Throngsak

1988. Perception of *Eucalyptus* sp. Proceedings of the Forestry Conference, Royal Forest Dept. Natural and Environmental Conservation, Economic Forest Management, General Forestry and Forest Administration Section, 181-186.

Language : Thai
Key Words : utilization, environmental impacts
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : Discussed advantages and disadvantages of planting eucalyptus on environment and using product.

185.

Witthawatchuikul, Pongsak and Warin Jirasuktaveekul

1987. Allelopathic effect of *Eucalyptus camaldulensis* on germination rates of three

economic crops. Thai Journal of Forestry 6(3): 337-346.

Language : Thai
Key Words : allelopathy, germination, crops
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Muang, Changwat Rayong, Thailand (175m)
Year Started : 1987
Year Completed : 1987
Notes : Crops were *Vigna radiata*, *V.mungo* and *Impomoea reptans*. There was no negative allelopathic effect of *E. camaldulensis* on germination rate of crops.

186.

Wongkhaluang, Charuni, Chatuporn Mangkhalarat, Yupaporn Sornnuwat

1986. The comparative destruction of termites from pine plantation. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 2:287-295.

Language : Thai
Key Words : termites, destroy
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Melia azedarach*
Sites : Amphoe Muang, Changwat Chiang Mai
Year Started : 1986
Year Completed : 1986
Notes : All species studied were found to be moderately durable-very durable to *Coptotermes gestroi*, *Globitermes sulphureus*, *Microcerotermes crassus*, and *Macrotermes carbonareus*; and perishable-durable to *G. sulphureus*.

187.

Wongkhaluang, Charunee, Yupaporn Soranuwat, Teera Veenin, Arunothai Wongsiri, Surang Thoenhirun

1986. The performance of some chemicals on protection of Eucalyptus logs after felling. Proceedings of the Forestry Conference. Royal Forest Department. Forest Product Section 1:179-203.

Language : Thai
Key Words : insect protection, chemical method, log
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1985
Year Completed : 1986
Notes : Formulation (F7)30% was the best chemical. It was followed by Kaothrine (K) 01%, Sodiumpentachlorophenate (SPCP) 3%, Sumithion (S) 2% + Unicide (U)3%, Dieldrin (D) 1% + Sodiumpentachlorophenate (SPCP) 3% and Concord 0.1% + Unicide 3%.

188.

Wuttiwichan, Tinnakorn and Boonchoob Boontawee

1988. Development of potting system. Proceedings of the Forestry Conference. Royal Forest Department, 2.

Language : Thai
Key Words : pot, techniques
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Melia azedarach*, *Acacia auriculiformis*
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima,

- Thailand (400m)
- Year Started** : 1988
Year Completed : 1988
Notes : -
- 189.**
Wuttiwichan, Tinnakorn and Boonchoob Boontawee
1988. Development of potting system. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.
- Language** : Thai
Key Words : seedling, media, growth
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Melia azedarach,
Eucalyptus camaldulensis,
Leucaena leucocephala
- Sites** : Thailand
Year Started : 1988
Year Completed : 1988
Notes : -
- 190.**
Wuttiwichan, Tinnakorn and Boonchoob Boontawee
1988. Test period of fertilization. Proceedings of the Forestry Conference. Royal Forest Department, 1.
- Language** : Thai
Key Words : seedling, fertilization
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Leucaena leucocephala,
Melia azedarach,
C. siamea
- Sites** : Thailand
Year Started : 1984
Year Completed : 1984
Notes : -

191.
Yap, S. K. and S. M. Wong

1983. Seed biology of *Acacia mangium*, *Albizia falcataria*, *Eucalyptus* spp. *Gmelina arborea*, *Maesopsis eminii*, *Pinus caribaea* and *Tectona grandis*. Malaysian Forestry.

Language : -
Key Words : silviculture, seed morphology, seed extraction, germination testing
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia mangium*,
Albizia falcataria,
Eucalyptus spp.,
Gmelina arborea,
Tectona grandis

Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

192.
Zashim Uddin, M., M. K. Hossain, M. A. Tarafdar and M. A. Latif

1985. Provenance trials of *Eucalyptus* established in 1983. Eucalypts in Bangladesh, Silviculture Division, Bulletin No. 6, Bangladesh Forest Research Institute, Chittagong, pp. 105-116.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Eucalyptus camaldulensis*,
E. urophylla and
E. brassiana

Sites : Dinajpur and Tangail, Bangladesh
Year Started : 1983
Year Completed : 1985
Notes : -

193.
Zurien, Sormongar S.

1985. Growth and phosphorus absorption of *Eucalyptus deglupta* and *Eucalyptus camaldulensis* inoculated with the mycorrhizal fungus *Pisolithus tinctorius* or *Rhizopogon luteolus*. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : mycorrhizal fungi, level of fertility, phosphorus absorption
Executing Agency : MS Thesis
Funding Agency : FDA/WB-FDP
Status : CU
Species : *Eucalyptus camaldulensis*,
E. deglupta
Sites : College, Laguna, Philippines
Year Started : 1984
Year Completed : 1985
Notes : The effects of inoculating

two *Eucalyptus* species with two mycorrhizal fungal species on growth and phosphorus absorption were studied. Six-week old seedlings of the two *Eucalyptus* species were grown in perlite mixed with different amounts of rock phosphate. Each of the different inoculum levels (0.25 and 50 ml) of *P. tinctorius* or *R. Luteolus* fungus was applied at about 1/3 filling joint of the 6 in 10 in polyethylene bag containing 1,500 ml perlite-rock phosphate mix prior to transplanting the seedling. Rock phosphate levels, amounts of fungal inoculum, fungal species and interaction of rock phosphate levels and amount of inoculum significantly affected height growth, height increment and total oven-dry weight of *Eucalyptus deglupta* seedlings. However, fungal species did not have significant effect on height growth, height increment and total oven-dry weight of *E. camaldulensis*, while rock phosphate levels, amount of inoculum and interaction of rock phosphate levels and amount inoculum did significantly. In both experiments, the greatest growth response was observed when 50 ml of fungal inoculum was applied: the height growth and total oven-dry weight of *E.*

deglupta was highest when 50 ml of inoculum of *Pisolithus tinctorius* was applied.

1.
Calacal, Lourdes

Effect of mulching on the survival and growth of camachile (*Pithecellebium dulce*), kakawate (*Gliricidia sepium* Jacq.) and rain tree (*Samanea saman*) wildlings in denuded areas.

Language : English
Key Words : "
Executing Agency : ERDB
Funding Agency : ERDB
Status : CU
Species : *Gliricidia sepium*,
Pithecellobium dulce
Sites : DENR Region I,
Philippines
Year Started : 1981
Year Completed : 1986
Notes : -

2.
Chen, C. P.

1987. Trees for farmers - fodder trees.
National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : forage shrubs and trees,
animal production
Executing Agency : MARDI
Funding Agency : MARDI
Status : CP
Species : *Leucaena leucocephala*,
Cajanus cajan,
Gliricidia sepium,
Sesbania sesban
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1987
Notes : -

3.
Dionglay, Macario G.

1984. Evaluation of plant species for streambank and riparian zone stabilization in the Bicol River basin. PCARRD Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : streambank, riparian
zone, river basin, soil
loss
erosion
Executing Agency : FORI
Funding Agency : PCARRD
Status : CU
Species : *Gliricidia sepium*,
Leucaena leucocephala,
Gmelina arborea
Sites : College, Laguna,
Philippines
Year Started : 1982
Year Completed : 1985
Notes : The average mean from
various treatments studied range from 5.09
cm. to 5.73 cm. Arithmetically, it shows that
of all the treatments used, mahogany is the
most effective in controlling streambank
erosion and is therefore recommended for
streambank stabilization.

4.
Generalao, Maximino

1984. Effects of fruit maturity, storage and pre-treatment on the germination of fuelwood species. Research Terminal Report. FORI, College, Laguna, Philippines.

Language : English
Key Words : kakawate, fruit maturity,
storage, percent
germination, fuelwood
Executing Agency : FORI
Funding Agency : PCARRD
Status : CU
Species : *Gliricidia sepium*
Sites : College, Laguna,
Philippines
Year Started : -
Year Completed : -
Notes : Seeds of kakawate
stored in bottles at room temperature
obtained the highest percent germination in
brown seeds, 3 months storage and hot water
treatment for 4 minutes (A3, B1, C2), 100%.
Lowest percent germinating 0% was
observed in matured green (A1), green
brown (A2) and brown (A3) seeds stored for
12 months (B4), soaked at any
pre-germination treatments applied.

On the other hand, seeds stored at 5 degree C in bottles obtained 14% germination in brown seeds, 3 months storage and hot water treatment for 4 minutes (A3, B1, C2) and brown seeds, 6 months storage and no pre-sowing treatment (A3, B2, C0). Lowest percent germination was observed in matured gree (A1) and green brown (A2) seeds stored for 3 months (B1), 6 months (B2), 9 months (B3) and 12 months (B4) soaked in tap water overnight (C1) and submerged in hot water for 4 minutes, soaked overnight in tap water. Moreover, at 0 degree C, 100% germination was in green brown (A1) and brown (A3) seeds stored for 3 months (B1) and 6 months (B2) soaked in hot water for 4 minutes (C2), in tap water overnight (C1) and no pre-sowing treatment (C0). Lowest germination, 0% was observed in brown seeds, 3 months storage and submerged in hot water for 4 minutes, soaked overnight in tap water (A3, B1, C3). Furthermore, seeds of kakawate sealed in plastic bags at room temperature obtained 100% germination in matured green (A1) and brown (A2) stored for 3 months with no pre-sowing treatment (Co), soaked in tap water overnight (C1), while lowest, 0% was in matured green (A1), green brown (A2) and brown (A3) seeds stored for 12 months (B4) soaked in tap water overnight (C1), hot water treatments for 4 minutes (C2) and immersion in hot water for 4 minutes and soak overnight in tap water (C3). A 100% germination was observed at 5°C in matured green (A1), green brown (A2) and brown (A3) stored for 3 months (B1), 6 months (B2) and 9 months (B3) with no pre-sowing treatment (Co) while 0% was observed in matured green (A1), green brown (A2) and brown (A3) seeds stored for 9 months (B3) and 12 months (B4) with no pre-sowing treatment (Co). Seeds stored in plastic bag at 0°C obtained 100% germination in brown (A3) seeds, 3 months storage (B1) and 9 months (B3) with no pre-sowing treatment (Co), soaked in tap water overnight (C1) and hot water treatment for 4 minutes (C2). No germination was observed in brown seeds stored for 3 months and submerged in hot water for 4 minutes and soaked overnight in tap water (A3, B1, Co).

5.

Gonzales, Esther V.

1984. Leaf protein from hardwood species as feed supplement for chicken. FPRDI Journal 13(1):66-75. FPRDI, College, Laguna, Philippines.

- Language** : English
Key Words : leafmeal, hardwood, softwood, hubbard chicken
Executing Agency : FPRDI
Funding Agency : NSTA
Status : CP
Species : *Sesbania grandiflora*, *Albizia falcataria*, *Gliricidia sepium*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : Of the eight leaf species analyzed for protein content, katurai (*Sesbania grandiflora*) gave the highest protein content of 29.58% followed by Moluccan sau (*Albizia falcataria*) with 26.14%. The leaves of these two species were used in the experimental feeding of chickens to evaluate the nutritional value of the leaf proteins. Katurai and Moluccan sau leaf meal, in separate feeding trials, were incorporated as protein source with and without fish meal in the basic diet of experimental chickens. The control diet consisted of 15% fish meal. In addition to the basic ingredients, the three experimental diets had 3.75%, 11.25% and 15% of either katurai or Moluccan sau leafmeal. The feed efficiency of the leafmeal was determined by the amount of feed consumed and the weight of the chicken. Statistical analysis showed that the gains in weight of chickens fed with 3.75% and 11.75% katurai leafmeals were not significantly different from those rationed with the control diet of 15% fish meal. The feed efficiencies of the diets of these two levels of leaf meal were better or just as good as the control. With Moluccan sau, only the diet with 3.75% leafmeal was not significantly different from the control. However, the feed efficiency of this diet was not comparable to the control. The

results of the experimental study showed that katurai leaves can be used as a feed supplement to the basic diet of chicken in levels of 3.75-11.25% as substitute for the conventional fish meal.

6. Mohammad, Adnan

1986. MPTS: an urban forestry perspective. Proc. National MPTS Kepong, Malaysia.

Language : -
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia auriculiformis*,
Gliricidia sp.,
Casuarina sp.,
Leucaena sp.
 Sites : Kepong, Malaysia
 Year Started : 1986
 Year Completed : -
 Notes : -

7. Perino, Jemuel M.

1979. Rehabilitation of a denuded watershed through the introduction of kakawate (*Gliricidia sepium* Jacq.). Philippine Forest Research Journal 4(2):49-67.

Language : English
 Key Words : legume, distribution, nursery crop, micro-climate, reforestation, drought-resistant
 Executing Agency : FORI
 Funding Agency : -
 Status : CP
 Species : *Gliricidia sepium*
 Sites : Norzagaray, Bulacan, Philippines
 Year Started : 1977
 Year Completed : 1978
 Notes : The survey (Phase 1) revealed that kakawate is found in most latitudes in the Philippines from 6 to 19 degrees north and at an altitudinal range from the sea level to 900 m in the four

climatic types in the Philippines. Kakawate grows in most adverse sites. It is a drought-resistant specie that sheds its leaves during dry season (November to April). Before the onset of the rainy season, its leaves and shoots are again re-established. It is rarely grazed on by either domesticated or wild animals. The Phase II study revealed that length of cutting exposed (30.48 cm), combination of regeneration technique and length of cutting exposed (downslope planting x 30.48 cm), combination of spacing and length of cutting exposed (upslope planting x 3.75 sq m x 15.24 cm), significantly affected the survival rate of cuttings at 1% level. Stepwise regression analysis showed that temperature at one meter above the ground and the minimum soil temperature at 3048 cm depth within the experimental area explained 59.26% of the variations of survival rate cuttings. Dry matter production could not be explained by treatments during the first 20 weeks from the time of establishment.

8. Rimando, Rhodora M.

1981. Growth and development of some fuelwood species in different potting media. Philippine Forest Research Journal 6(3):91-100.

Language : English
 Key Words : -
 Executing Agency : FORI
 Funding Agency : PCARRD-FORI
 Status : CP
 Species : *Gliricidia sepium*,
Pithecellobium dulce
 Sites : Philippines
 Year Started : -
 Year Completed : -
 Notes : Seedlings of kakawate (*Gliricidia sepium* (Jacq.) HBK.), kamachile (*Pithecellobium dulce* (Roxb.) Benth.) and agohe (*Casuarina equisetifolia* Forst.) were potted in 7 different media. Height growth, stem diameter, length of primary root and shoot-root ratio were determined. All 3 species exhibited poor performance in 1:1 mixture of decomposed sawdust-coir dust and in humus-decomposed sawdust (1:2). Humus-sand (2:1) was found to be the best

potting medium of agoho. Humus-decomposed coirdust (1:2) and decomposed sawdust are recommended in potting camachile. Kakawate performed well in 4 different potting media, namely humus-decomposed sawdust-coirdust (1:1:1), humus-decomposed coirdust (1:2), humus-sand (2:1) and decomposed sawdust.

9.

Siababa, Nelly S.

1985. Responses of kakawate (*Gliricidia sepium* Jacq.) seedlings to different VA mycorrhizal fungi with or without rhizobium in three grassland soils. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
 Key Words : -
 Executing Agency : MS Thesis
 Funding Agency : PDSP
 Status : CU
 Species : *Gliricidia sepium*
 Sites : Puting Lupa, Calamba, Laguna; Pantabangan; Carranglan, Nueva Ecija, Philippines

Year Started : 1982

Year Completed : 1983

Notes : This study was conducted to determine the responses of kakawate seedlings to different vasicular-arbuscular mycorrhizal (VAM) fungi with or without blanket application of Rhizobium in three grassland soils. The soils used in this study were collected in grassland areas. The different VAM fungi were *Pantabangan* isolates (a mixture of *Glomus* spp.), Puting Lupa isolates (a mixture of *Glomus* spp., *Acaulospora* spp. and *Sclerocystis* spp.), *Acaulospora laevis*, *Glomus mosseae*, and *Glomus clarus*. Growth responses kakawate seedlings varied significantly between Puting Lupa and Pantabangan soils than in Carranglan soil. Kakawate seedlings grown in the former two soils had higher height and diameter growth, nodule weight and N, K, and Mg uptakes which were significantly different as compared with that of seedlings grown in Carranglan soil. Kakawate

seedlings responded differently to mycorrhizal treatments with or without Rhizobium. In both experiments, mycorrhizal seedlings had higher height, diameter, total biomass, module yield and P, K and Mg uptakes than their non-mycorrhizal counterparts. In Phase I (no Rhizobium), only diameter growth and nodule yield were significantly affected by VAM inoculations. Pantabangan isolates significantly increased diameter and module yield as compared with the control but they were equally effective with the other endophytes in terms of promoting these two parameters.

10.

Sulaiman, Rahim B. and Anuar B. Mohamad

1987. Promoting the concept of agroforestry to small farmers in Sabah - a preliminary experience. National MPTS Seminar. FRIM, Kepong.

Language : English
 Key Words : agroforestry model, community forestry
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Pinus caribea*, *Paraserianthes falcataria*, *Gliricidia* spp., *Anthocephalus chinensis*, *Durio* sp., *Shorea macrophylla*, *Dyera costulata*, *Cinnamomum* spp.
 Sites : Sungai Darling, Kg. Menusoh, Sabah, Malaysia

Year Started : 1983

Year Completed : 1987

Notes : -

11.

Tumaltwan, Benjamin

1985. Species and provenance trial of selected fuelwood species. Philippine Forest Research Center 10(1):35-48.

Language : English
Key Words : ipil-ipil, akleng-parang,
 kakauate, agoho
 provenance variation
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Gliricidia sepium
Sites : Cabagan, Isabela,
 Philippines
Year Started : 1981
Year Completed : 1984
Notes : Species and provenance
 trial of selected fuelwood species were
 conducted in Cabagan Forest Research
 Station, Cabagan, Isabela in July 1981, to
 determine adaptability of these species in
 this area. The results showed that ipil-ipil
 (*Leucaena leucocephala* (Lam.) de Wit) and
 akleng-parang (*Albizia procera* (Roxb.)
 Benth.) had the highest field survival (80%),
 followed by kakauate (*Gliricidia sepium*
 (Jacq.) Stend.) (65%) and Agoho
 (*Casuarina equisetifolia* Forst.) (53%).
 Despite its relatively low survival, Agoho
 (53%) out-performed the other species in
 height and diameter growth. In the
 provenance level, Ago'ho Mindoro
 and Laguna showed exceptional survival,
 height and diameter growth over Agoho
 Quezon, for kakauate Nueva Vizcaya also
 outgrew the other provenance.

1.

Abood, Faizah and Mahpar Atan

1989. Susceptibility of wood from fire plantation species to *Coptermes curvignathus*. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang Malaysia, 1989.

Language : -
Key Words : forced feeding, wood blocks, weight loss of test blocks
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*, *Pinus caribaea*, *Paraserianthes falcataria*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

2.

Agpaoa, Alfredo C. and Rogello A. Zamora

1976. Months for planting *Gmelina arborea* stumps of different ages. Philippine Forest Research Journal 1:(1)38-43.

Language : English
Key Words : stumps, yemane, survival
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Gmelina arborea*
Year Started : -
Year Completed : -
Notes : *Gmelina* stumps planted in May and June gave the best height growth rates; highest survival percentage was attained with the May-July plantings. Ages ranging from 7 to 10 months also yielded the best survival percentages of outplanted *Gmelina* stumps. However, height growth was not influenced by the age of planting materials. Planting during the early days of the rainy season is necessary to attain success in growing from stumps.

3.

Ahmad, Darus B. HJ.

1983. Nursery techniques for *Gmelina arborea*, *Acacia mangium*, *Albizia falcataria* and *Eucalyptus species* at the Kepong Nursery. FRI Report No. 36.

Language : -
Key Words : silviculture, nursery techniques
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Gmelina arborea*, *Albizia falcataria*, *Eucalyptus sp.*
Sites : Kepong, Malaysia
Year Started : -
Year Completed : -
Notes : -

4.

Ahmad, Norami Bt. and Maziah Bt. Zakaria

1987. Mycorrhizal experimentation with some timber tree species in Malaysia. Proceedings of Asian Seminar on Trees and Mycorrhiza. Kuala Lumpur, Malaysia.

Language : English
Key Words : autecology, symbiotic relationship, VA mycorrhiza, inoculation, mycorrhiza testing
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Albizia falcataria*, *Gmelina arborea*, *Intsia palembanica*, *Leucaena leucocephala*
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

5.

Alcachupas, Raymundo C. and Francisco Lapitan

1988. Production of lumber from small

diameter logs by saw-dry-up (SDR) method. FPRDI Annual Report.

Language : English
Key Words : SDR (saw dry rip),
 crook, twist, split, warps
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Eucalyptus deglupta*,
Gmelina arborea,
Albizia falcataria
Sites : College, Laguna,
 Philippines
Year Started : 1986
Year Completed : 1987

Notes : The lumber yield and quality of small diameter logs in relation to conversion method was investigated. Five plantation species were studied, namely: Benguet pine (*Pinus kesiya* Royle ex Gordon), Moluccan sau (*Albizia falcataria* L. Back.), Gmelina (*Gmelina arborea* Roxb.), gubas (*Endospermum peltatum* Merr.) and Bagras (*Eucalyptus deglupta* Blume). The log samples per specie were processed by saw-dry-up (SDR) and conventional sawing system. Results indicated superiority of the SDR over the conventional system in minimizing drying of growth stress-lumber defects such as split, cup, bow, crook and twist for all species. Based on the total lumber output per specie 0-18% exhibited negligible degrees of warp in the SDR, while more than 50% in the conventional system developed serious forms of warps, especially in Moluccan sau. The SDR system significantly increased the final lumber recovery of Benguet pine and Bagras by 1% and 4%, respectively. However, this finding was reversed in favor of the conventional method in Moluccan sau, Gmelina and gubas, perhaps due to the interaction of other factors involved in the processing operation for these three species. These included differences of sawing equipment used and high variation of log input characteristics.

6.
 Alonzo, Dominador S.

1977. The effect of fertilization on some

physical, anatomical and chemical properties of *Gmelina arborea* Roxb. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : fertilization, commercial
 fertilizer, yemane, lumen
 width, fiber diameter
Executing Agency : MS Thesis
Funding Agency : NSDB
Status : CU
Species : *Gmelina arborea*
Sites : Carranglan, Nueva Ecija,
 Philippines

Year Started : -
Year Completed : -
Notes : The influence of different levels of 14-14-14 complete commercial fertilizer on some wood properties of four-year old *Gmelina arborea* seedlings, fertilized during the first year of growth was studied. The seedlings were planted and fertilized by the Research Staff of the Bureau of Forestry Development in 1971 in an open area where the soil contains abnormally low nutrient elements necessary for growth. Fertilizer was applied to improve the condition of the soil and to provide the needed nutrients for the growth of the seedlings in their first few years of development. The different levels of fertilizer used were (control); 50 kg; 100 kg and 150 kg/ha. The application of 100 kg/ha increased specific gravity by about 6% compared with control trees. Applying 50 kg/ha slightly increased specific gravity by about 1%, but this was found to be insignificant. Conversely, there was a slight and insignificant reduction of about 1% in specific gravity when 150 kg/ha of fertilizer was applied. The response of the trees to fertilization with respect to thickness of the cell wall, follows a trend similar to that of specific gravity. The application of 50 kg and 150 kg/ha of fertilizer increased cell wall thickness by about 9% and 10%, respectively; while the use of 150 kg/ha caused a slight and insignificant reduction in cell wall thickness. In the case of extractive content, no statistical differences among treatments were detected.

7.
Awang, Kamis

1986. Growth response of *Gmelina arborea* Roxb. seedling to N, P and K fertilizers on Bungor soil. Malay. For. 49:357-370.

Language : English
Key Words : -
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Gmelina arborea*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1984
Notes : -

8.
Awang, Kamis and Mohd. Amran M. Ghazali

1984. Initial performance of *Gmelina arborea* Roxb. and *Acacia mangium* Willd. under plantation conditions. The Malaysian Forester, Vol. 47 (4):255-262.

Language : English
Key Words : initial performance, silviculture, site-species testing
Executing Agency : UPM
Funding Agency : FRK
Status : CP
Species : *Gmelina arborea*, *Acacia mangium*
Sites : Serdang, Malaysia
Year Started : 1982
Year Completed : 1984
Notes : -

9.
Baharuddin, Johari

1987. An appraisal of the compensatory plantation programme in Peninsular Malaysia. Proceeding of Seminar on The Future Role of Forest Plantations in the National Economy and Incentives Required to Encourage Investments in Forest Plantation Development. Sabah, Malaysia, 1987.

Language : English
Key Words : compensatory plantation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*
Sites : Malaysia
Year Started : -
Year Completed : 1987
Notes : -

10.
Baharuddin, Johari and T. Y. Chin

1986. Review of plantation experiences in Peninsular Malaysia. Proceedings of the Ninth Malaysian Forestry Conference. Sarawak, Malaysia.

Language : -
Key Words : silviculture, plantation management, compensatory plantation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

11.
Becker, E. S.

1987. Evaluation of samples of *Acacia mangium*, *Eucalyptus deglupta* and *Gmelina arborea* for kraft pulping, bleaching and paper strength properties. Report to North Borneo Timber Bhd. Econotech Service Ltd.

Language : English
Key Words : pulping, bleaching, strength properties
Executing Agency : NBTB
Funding Agency : NBTB
Status : CP
Species : *Eucalyptus deglupta*, *Gmelina arborea*, *Acacia mangium*

Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1987
 Notes : -

12.

Castillo, Arturo S.

1978. Effects of fertilization on the morphology of *Gmelina arborea* (Roxb.) planting stock. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
 Key Words : morphological characters, fertilization, yemane, potassium content

Executing Agency : MS Thesis
 Funding Agency : PCARRD
 Status : CU
 Species : *Gmelina arborea*
 Sites : College, Laguna, Philippines

Year Started : 1976
 Year Completed : 1976
 Notes : The study was conducted to determine the effects of fertilization on the morphology of yemane (*Gmelina arborea*) seedlings grown on transplant beds. The effects of 8 kinds of fertilizers (control, N, P, NK, K, NP, PK and NPK) and 3 different kinds of application (T1, T2 and T3) were determined on the basis of a number of morphological characters. All morphological characters examined, were not affected by potassium fertilizer. Phosphorus, nitrogen, NPK, NP and NK increased root collar diameter, green weight of leaves, taproot diameter and height. Nitrogen, potassium and NK did not affect green weight top to root ratio but all the other fertilizers increased it. The dry weight top to root ratio was not affected by nitrogen, potassium, PK and NK but increased by all the other fertilizers. The application of fertilizer 3 weeks after transplanting affected significantly lower green weight top to root ratio compared to applications after 7 and 11 weeks after transplanting. On the other hand, dry weight

top to root ratio was lower for application at 3 and 11 weeks than at 7 weeks. The height of the seedlings was greater for earlier applications at 3 and 7 weeks than for 11 weeks. Both applications at 3 and 7 weeks did not vary from each other. The best transplanting for it effected improvements in all the morphological characters and it was the cheapest fertilizer. The leaves of the plant had significantly greater nitrogen and phosphorus contents than the taproot or the stem.

13.

Chan, Feliza D.

Glue-laminating characteristics of some Philippine woods (giant ipil-ipil, bagras and yemane).

Language : English
 Key Word : -
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CU
 Species : *Leucaena leucocephala*,
Eucalyptus deglupta,
Gmelina arborea

Sites : College, Laguna, Philippines

Year Started : 1982
 Year Completed : 1986
 Notes : -

14.

Chew, L. T., Nurulhuda Mohd. Nasir, C. L. Ong and Rahim Sudin

1989. Particleboards from some plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : type I board, single layer or three-layer board
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
Pinus caribaea,

Gmelina arborea,
Hevea brasiliensis
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

15.
dela Cruz, Reynaldo E.

1984. Phenology of selected industrial forest plantation species. Terminal Report.

Language : English
Keyword : -
Executing Agency : UPLB-PCARRD IND
Funding Agency : PCARRD
Status : CU
Species : *Gmelina arborea*,
Albizia falcataria,
Eucalyptus deglupta,
Leucaena leucocephala
Sites : Laguna, Nueva Vizcaya,
Abra, Philippines

Year Started : 1980
Year Completed : 1984
Notes : Diameter growth of selected fast-growing tree species (K. Bangkal, Yemane, Moluccan sau, red gum, bagras, gubas and ipil-ipil) as affected by climatic factors (rainfall, evaporation, relative humidity, radiation, sunshine duration, and air temperature) in three sites (Laguna, N. Vizcaya and Abra) were studied. Phenological phenomena (flower bud formation, flowering, fruiting, formation of matured fruits, seed dispersal, shedding of leaves, flushing and bark shedding) for each species as they relate to climate...

16.
Dichoso, Maximo O.

1984. Drought tolerance of some reforestation species. Philippine Forest Research Journal 9(3-4):197-210.

Language : English
Key Words : reforestation, drought tolerance, soil moisture
Executing Agency : FORI
Funding Agency : -

Status : CP
Species : *Gmelina arborea*,
Acacia auriculiformis,
Albizia falcataria
Sites : College, Laguna,
Philippines
Year Started : 1983
Year Completed : 1984
Notes : The study was conducted to determine the survival performance of five reforestation species when exposed to drought conditions. Results showed that yemane (*Gmelina arborea* Linn. Roxb.) and *Acacia auriculiformis* Cunn. performed better than mahogany (*Swietenia macrophylla* King.), narra (*Pterocarpus indicus* Willd.) and Moluccan sau (*Albizia falcataria* L. Back). Narra, however, performed slightly better than Moluccan sau but not better than mahogany. The observed differences of performance among species under moisture stress condition is believed to be due to the difference in the physical and structural features of the species.

17.
Dionglay, Macario G.

1984. Evaluation of plant species for streambank and riparian zone stabilization in the Bicol River basin. PCARRD Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : streambank, riparian zone, river basin, soil loss erosion
Executing Agency : FORI
Funding Agency : PCARRD
Status : CU
Species : *Gliricidia sepium*,
Leucaena leucocephala,
Gmelina arborea
Sites : College, Laguna,
Philippines
Year Started : 1982
Year Completed : 1985
Notes : The average mean from various treatments studied range from 5.09 cm. to 5.73 cm. Arithmetically, it shows that of all the treatments used, mahogany is

the most effective in controlling streambank erosion and is therefore recommended for streambank stabilization.

18.

Empedrad, Francisco A.

1980. Geographic variation in some growth characteristics and wood specific gravity of yemane (*Gmelina arborea* Roxb).

Language : English
Key Words : geographic variation, growth characteristics, organic matter content, yemane
Executing Agency : MS Thesis
Funding Agency : BFD
Status : CU
Species : *Gmelina arborea*
Sites : Surigao del Sur; Nueva Vizcaya; Cagayan; Cebu, Philippines

Year Started : -

Year Completed : -

Notes : Variations in growth characteristics and wood specific gravity of yemane (*Gmelina arborea* Roxb.) were studied with respect to geographic sites and three five-year age levels. Trees grown in Surigao del Sur exhibited more superior growth qualities in terms of diameter, height of first branch, total height and crown diameter as compared to trees grown in Nueva Vizcaya, Cebu and Cagayan. Trees grown in Surigao del Sur and Cebu had lower specific gravity than those grown in Cagayan and Nueva Vizcaya. Wood specific gravity was found to increase with age and was higher for trees grown at very high elevations. The significantly faster growth of trees in Surigao del Sur in terms of total height and diameter, breast high, was found to be favorably enhanced by higher soil moisture and organic matter content due to higher mean monthly rainfall. The very poor performance of trees in Cagayan was caused by lack of supply of soil-macro nutrients, especially nitrogen, and the presence of rocks and stones which prevent root penetration and development.

19.

Equia, Castillo, Cruz and Arturo A. Pablo

1990. Suitability of some LKS and ITPS for the manufacture of general pallets. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : pallets, LKS (lesser known species), ITPS (industrial tree plantation species), splitting, cracking

Executing Agency : FPRDI

Funding Agency : FPRDI

Status : OR

Species : *Gmelina arborea*, *Albizia falcataria*

Sites : College, Laguna, Philippines

Year Started : 1987

Year Completed : 1990

Notes : Data were gathered on the strength value of LKS and ITPS and their strength grouping. These include the physical and mechanical properties. Six pallets from duguan and six pallets from bokbok were fabricated. Three pallets each were then subjected to drop test and the other were subjected to inclined impact test. The drop test showed that the height of 61 cm (2ft) the pallets were slightly damaged. The pallets were again dropped 10 times at the height of 153 cm (4 ft). Visual inspection showed that splitting and cracking occurred but it took about 20 to 25 drops before the pallets became totally unserviceable. Cracks were observed to have started at nail joint and some nails were withdrawn. *Albizia falcataria* and yemane logs were sawn into lumber and air-dried before fabrication into pallets. The raw materials however, were made available only during the last quarter. By the end of March 1990, pallets from *Albizia falcataria* and yemane shall have been fabricated and tested.

20.

Florido, Levi V.

1978. Vegetative propagation by cuttings of yemane (*Gmelina arborea* Roxb.) using

growth hormones. Philippine Forest Research Journal 3(2):115-122.

Language : English
Key Words : cuttings, growth hormones, root initiation
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : 1978
Year Completed : 1978
Notes : Indoleacetic acid (IAA), Naphthalene acetic acid (NAA) and Indolebutyric acid (IBA) in four levels: (0 ppm, 250 ppm, 500 ppm and 750 ppm) were tested on yemane cuttings. NAA induced more formation of roots than IAA and IBA. Higher concentration of the hormones enhanced root initiation and development.

21.

Harun, A. H.

1984. The role of forest plantation in the long term national timber production strategies in Peninsular Malaysia. Seminar on Development of Forest Plantation in Malaysia. Sabah, Malaysia, 9-14 July 1984. Sabah.

Language : -
Key Words : forest plantation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*
Sites : Malaysia
Year Started : -
Year Completed : 1984
Notes : -

22.

Hoekstra, D. A.

1984. An *ex-ante* economic analysis of proposed mixed and zonal agroforestry systems for the batu arang forest reserve,

Malaysia.

Language : -
Key Words : agroforestry, silvipasture, economic evaluation
Executing Agency : FDM
Funding Agency : FDM
Status : CP
Species : *Albizia falcataria*, *Acacia mangium*, *Gmelina arborea*, *Erythrina poeppigiana*
Sites : Batu Arang, Malaysia
Year Started : -
Year Completed : -
Notes : -

23.

Itam, Sandum, P. B. L. Srivastava and Doraisingam Manikam

1986. Trial on rooting of cutting of *Gmelina arborea*. Effect of source, hormone treatment, media and frequency of misting. Malay. For. 49:332-351.

Language : English
Key Words : -
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Gmelina arborea*
Sites : Sarawak, Malaysia
Year Started : 1981
Year Completed : -
Notes : -

24.

Jones, N. and H. Jacob

1982. Seed supplies and genetic improvement: four fast-growing hardwoods for Sabah plantations in the eighties. Proceedings of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : English
Key Words : silviculture, tree improvement, seed supply
Executing Agency : FDS
Funding Agency : FDS

Status : CP
 Species : *Acacia mangium*,
Albizia falcataria,
Gmelina arborea
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

25.

Kader, Razali Abdul and Kuo Hai Sul

1989. Properties of particleboards manufactured from fast-growing plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
 Key Words : thinning wood, synthetic resin adhesive
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea,
Paraserianthes falcataria,
Araucaria hunstenii
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

26.

Kendawang, Joseph Jawa

1986. Status of the reforestation programme in Sarawak. Malay. For. Conf., October 1986. Kuching, Sarawak.

Language : English
 Key Words : progress, problems, future plans
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*,
Araucaria cunninghamii,
Durio zibethinus,
Gmelina arborea,

Shorea macrophylla,
Swietenia macrophylla

Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

27.

Khoo, Kean Choon, Mohd. Noor Mohd. Yusoff, Lee Tack Wan

1989. Some compensatory forest plantation species for paper pulping. Reg. Symposium on Recent Developments in the Tree Plantation of Humid/Subhumid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : English
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
Paraserianthes falcataria,
Gmelina arborea
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

28.

Lapis, Eraneo B. and Renato C. Bautista

1977. Simulated defoliation of yemane (*Gmelina arborea*) coppice. Sylvatrop Philippine Forest Research Journal 2(2):139-145.

Language : English
 Key Words : defoliation, coppice, height increment, growth increment
 Executing Agency : FORI
 Funding Agency : -
 Status : CP
 Species : *Gmelina arborea*
 Sites : College, Laguna, Philippines
 Year Started : 1977
 Year Completed : 1988
 Notes : Defoliation of *Gmelina arborea* coppice significantly

affected growth, stem and height increments being inversely proportional to levels of defoliation. While at 25, 50 and 75% defoliation, diameter increment was reduced by 19.8, 41.9 and 63.1%, height increment was reduced by 29.8, 44.4 and 62.4%, respectively. On the other hand, stump size and growth of coppices were not significantly correlated.

29.

Lauricio, Fuerdeliz M. and Yolanda D. Benitez

1980. Effects of mobilcer (anti-transpirant on yemane (*Gmelina arborea* Roxb.)) seedlings. Philippine Forest Research Journal 5(4):233-242.

Language : English
Key Words : transpiration, anti-transpirant, yemane, relative water content
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : Effects of mobilcer C on transpiration, internal water balance, leaf color changes and chlorophyll content of 3-month old *Gmelina arborea* seedlings were investigated. Transpiration of treated seedlings was relatively lower than those untreated. Internal water balance of mobilcer C-treated seedlings growing in both stressed and unstressed conditions was improved. Treated seedlings had higher relative water content emphasizing efficiency of anti-transpirant in reducing water loss. Toxicity symptoms include the skedding of leaves, presence of brown spots and chlorosis.

30.

Lee, Su See and L. K. Goh

1989. Seedling diseases of *Acacia mangium* and *Gmelina arborea* in a forest nursery.

Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : *Colletotrichum gloeosporioides*, leaf spots, dieback, Anthracnose
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*, *Gmelina arborea*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

31.

Machacon, Mariano T.

1980. Effects of site preparation on early field survival and growth of yemane (*Gmelina arborea* (Linn.) Roxb.) seedlings outplanted in hagonoy dominated site. Master of Forestry: University of the Philippines.

Language : English
Key Words : strip, clearing, slash and burn, spot clearing, plot clearing, field survival, yemane
Executing Agency : MF
Funding Agency : BFD
Status : CU
Species : *Gmelina arborea*
Sites : Mayantoc, Tarlac, Philippines (200-600 meters)
Year Started : 1979
Year Completed : 1980
Notes : Four methods of site preparation were tested and evaluated to determine their effects on the growth and survival of outplanted yemane (*Gmelina arborea* Roxb.) in a chromolaena-dominated site. The yemane seedlings planted, due to the four methods of site preparation registered 100% survival 9 months after planting. However, they vary significantly in

the percentages of seedlings that suffered dieback, height and diameter growth. The outplanted yemane seedlings were affected by the methods of site preparation. Whole plot clearing (T1) (complete removal of chromolaena including roots 1.5 m x 60 m and burning the slash in place, with soil cultivation and planted to palay) significantly outperformed strip clearing T3 (strip 1 m x 60 m was cleared of all vegetation, the planting spot was cultivated with planting bar) and spot clearing (T4) (planting spot with a diameter of 1 m was cleared of all vegetation) in height and diameter growth rate and percentages of seedling free from dieback. Whole plot clearing (T1) did not vary significantly with the other whole plot clearing method (T2) (the same as T1 minus burning and planted palay). However, T1 was consistently faster in growth rate and lower number of seedlings drying back. It was thought that T2 may not be sufficiently effective to sustain gain in initial height and diameter growth and low percentage of seedlings dieback because of increased unfavorable effects of other factors, possibly dessicating winds and high soil surface day temperature.

32.

Maun, Marcelino M.

1977. Survival and growth of yemane at different spacings. *Sylvatrop Philippine Forest Research Journal* 2(4):287-289.

Language : English
Key Words : yemane, survival, reforestation, spacing
Executing Agency : DNR
Funding Agency : -
Status : CP
Species : *Gmelina arborea*
Sites : Diadi, Nueva Vizcaya, Philippines (200 meters)
Year Started : 1966
Year Completed : 1976
Notes : Yemane (*Gmelina arborea* Roxb.) trees were planted 1.5 x 1.5 m, 2 x 2 m, 3 x 3 in, 1.5 x 2 m and 2 x 3 m at the Magat Reforestation Project in Bugnay, Diadi, Nueva Vizcaya. Spacings had no significant effect on the survival,

merchantable length and total height. The 3 x 3 m produced the biggest diameter at breast height, followed by the 2 x 3 m spacing.

33.

Mendoza, Valerio B and Antonio V. Glori

1976. Fertilization of yemane (*Gmelina arborea*) in Carranglan Nueva Ecija. *Philippine Forest Research Journal* 1:138-141.

Language : English
Key Words : fertilization, complete (14-14-14), organic, inorganic
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Gmelina arborea*
Sites : Carranglan, Nueva Ecija, Philippines
Year Started : -
Year Completed : -
Notes : Fifty kg per hectare of commercial 14-14-14 fertilizer applied one month after planting and another 50 kg a year after, did not improve the diameter and height growths of the seedlings. At 100 kg per hectare, significant improvement in diameter, height growth and survival were obtained. Seedling diameter increased by 109% and height, 80%. Increasing the rate to 150 kg per hectare did not produce significant beneficial effects compared with the application of 100 kg per hectare. Slight increase by 3 to 4% in survival was observed among the fertilized seedlings, whose survival was 99 to 100% as compared to 96% of the unfertilized ones.

34.

Pablo, Arturo A.

1987. Development of cement-bonded particleboards from industrial tree plantation species, lesser-known species and mixtures of various species including wood wastes. *FPRDI Operations PPlan. FPRDI, College, Laguna, Philippines.*

Language : English

- Key Words** : wood wastes, cement-bonded, particleboards, mor (modulus of rupture)
- Executing Agency** : FPRDI
- Funding Agency** : FPRDI
- Status** : OR
- Species** : *Leucaena leucocephala*, *Gmelina arborea*, *Albizia falcataria*
- Sites** : College, Laguna, Philippines
- Year Started** : 1985
- Year Completed** : 1990
- Notes** : Five species (mahogany, giant ipil-ipil, kaatoan bangkal, yemane and moluccan sau) were made into 20-mm thick, 250-mm x 250-mm, 1000 kg/m³ density bonded particleboard. Cement-wood ratio 7:30 was used at various chemical accelerators, magnesium chloride, calcium chloride, aluminum sulfate, aluminum hydroxide, aluminum chloride and calcium chloride. High values of MOR 2.31 to 3.79 MPa were obtained from mahogany, kaatoan bangkal and giant ipil-ipil with magnesium chloride accelerator. Moluccan sau had a higher value of 5.09 MPa in aluminum sulfate. Yemane has the lowest strength value of only .098 MPa in calcium chloride accelerator.
- 35.**
Pablo, Arturo A., Macias and Loida C. Mabilangan
1988. Development of wood-chip-cement board from industrial tree plantation species, lesser known species and mixtures of wood species of different densities. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.
- Language** : English
- Key Words** : wood chip, breaking load, woodwool, board density, cement board
- Executing Agency** : FPRDI
- Funding Agency** : FPRDI
- Status** : OR
- Species** : *Leucaena leucocephala*, *Gmelina arborea*
- Sites** : College, Laguna, Philippines
- Year Started** : 1987
- Year Completed** : 1992
- Notes** : Tests on wood cement boards were conducted on small and large-sized boards at 2 and 3 cm thickness, at 55:45 wood-cement ratio in 400 kg/m³ board density. Boards showed breaking load of 2079-3236 Newton (n); internal bond strength of 100-200 kpa; resistance to nail-head pull through 1100-1900 N; 40-50% water absorption and thickness swelling, 2.5-4.0%. Trial production of wood wool cement boards were made using giant ipil-ipil in various board thicknesses; 10, 12, 15, 30, 50, and 80-mm in 6 levels board density: 100, 200, 300, 400, 500, and 600 kg/m³.
- 36.**
Pabuayon, Catalino C., Felino R. Siriban and Benjamin S. Morales
1986. Development of railway ties from yemane (*Gmelina arborea*). FPRDI Annual Report. FPRDI, College, Laguna, Philippines.
- Language** : English
- Key Words** : railway, driving force, holding power, rail sleepers
- Executing Agency** : FPRDI
- Funding Agency** : FPRDI
- Status** : CU
- Species** : *Gmelina arborea*
- Sites** : College, Laguna, Philippines
- Year Started** : 1984
- Year Completed** : 1985
- Notes** : The technical feasibility of using yemane for railway ties based on its physical and mechanical properties was investigated. The driving force and holding power of the railway ties using dog and elastic spikes was determined. The mechanical properties of yemane ties gave higher values than the traditional species. This indicated that yemane is a potential source of rail sleepers. Furthermore, when elastic spikes were used, the holding power

was increased by about 50% over the dog spikes. This was expected because the design of the elastic spike exhibited a springy nature when driven through wood and offered resistance when the spikes were withdrawn. The results of the study are interesting because yemane is a plantation species with fast rate of growth. With its extraordinary growth qualities, yemane may yet become a future source of sleepers for the railway network systems. However, service tests should be conducted to determine the performance of yemane wood when subjected to actual field conditions. Further studies should be conducted to determine the optimum age at which yemane are suitable for railway ties.

37.

Peh, T. B. and K. C. Khoo

1984. Timber properties of *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria* and their utilization aspects. Malaysian Forestry 47(4): 285-303.

Language : English
 Key Words : forest products, anatomy, mechanical-physical properties, chemical components, machining properties, preservation
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria*
 Sites : Malaysia
 Year Started : 1983
 Year Completed : 1983
 Notes : -

38.

Purba, Darman Efendi, Salman Parisy and Dayanto Indro Utomo

1989. Pengaruh kadar air awal, ruang dan periode simpanan terhadap perkecambahan benih *Gmelina arborea* Linn. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : effects of water content, space and storage period of germination
 Executing Agency : FF
 Funding Agency : FFD
 Status : CU
 Species : *Gmelina arborea*
 Sites : Indonesia
 Year Started : 1988
 Year Completed : 1988
 Notes : -

39.

Sabri, Mohd. Hamami, Razali Abdul Kader and Kee Teck Khoon

1989. Gluing properties of wood of three fast-growing plantation species. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : gluability of wood, phenol-resorcinol formaldehyde, urea formaldehyde
 Executing Agency : UPM
 Funding Agency : UPM
 Status : CP
 Species : *Acacia mangium*, *Gmelina arborea*, *Paraserianthes falcataria*
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

40.

Sandjaya, Ishemat Soerlanegara and Hendi Suhendi

1987. Percobaan provenansi *Gmelina arborea* Linn. di Kebun Percobaan Pasirhantap dan Haur bentes, Jawa Barat. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : provenance trial
 Executing Agency : FFIPB

Funding Agency : -
Status : CU
Species : *Gmelina arborea*
Sites : Indonesia
Year Started : 1986
Year Completed : 1987
Notes : -

41.

Sani, Hamsawi and Jugah Kadir

1989. An early growth assessment of *Acacia mangium* and *Gmelina arborea* on sub-soil of Nyalau soil series in Bintulu. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
Key Words : compacted sub-soil
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Acacia mangium*,
Gmelina arborea
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : 1989
Notes : -

42.

Serna, Constante B.

1979. Nitrogen and phosphorus requirements of *Gmelina arborea* (Roxb.) seedlings. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : deficiency levels, leaf chlorosis, necrosis, stunted seedlings, anthocyanin formation
Executing Agency : MS Thesis
Funding Agency : FORI
Status : CU
Species : *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : 1976

Year Completed : 1977

Notes : Five levels of nitrogen (N) and four levels of phosphorus (P) application were evaluated to determine respectively the level of N and P requirements of *Gmelina arborea* (Roxb.) seedlings for maximum growth. The characteristic symptoms associated with deficiency levels for each nutrient element were also observed and catalogued. The N and P status of *Gmelina arborea* (Roxb.) seedlings at respective levels of N and P applied to the growth medium were likewise evaluated in relation to growth and yield. The study was conducted in a 5 x 4 factorial experiment in a randomized block design with N as the first factor and P as the second factor. A sand culture study was conducted in the College of Forestry greenhouse with the use of urea (45% N) and concentrated superphosphate (20% PO₄) fertilizers as sources of N and P, respectively.

43.

Shariff, Amir Husni B. Mohd.

1982. Soil survey for timber plantations in Malaysia. Proceedings of the Eighth Malaysian Forestry Conference. Sabah, Malaysia.

Language : -
Key Words : soil surveys, survey methods, site-species matching
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Pinus caribaea*,
Eucalyptus deglupta,
Gmelina arborea,
Acacia mangium
Sites : Sabah, Malaysia
Year Started : -
Year Completed : -
Notes : -

44.

Shariff, Amir Husni B. Mohd.

1983. A report on the soil survey of part of

forest reserve, Pahang. Research Pamphlet No. 95.

Language : -
Key Words : soil survey, site species matching, fast growing species
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Pinus caribaea*,
Acacia mangium,
Maesopsis eminii,
Gmelina arborea
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

45.

Sicad, Emmanuel B. and Follente

1988. Laminated veneer lumber (LVL) from industrial tree plantation species: Yemane (*Gmelina arborea* R. Br.). FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : laminated veneer, phenol-resorcinol, glue, gluebond, laminae
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : 1987
Year Completed : 1987
Notes : Laminated veneer lumber (LVL) was produced from yemane (*Gmelina arborea* R. Br.) veneer of 6.5 and 10mm thickness. The process consisted of rotary cutting of the bolt, drying the veneers to 8% moisture content, and gluing the veneers parallel to each other. The effect of pressure and pressing time on the MOR and glue bond quality of LVL were investigated. Phenolresorcinol formaldehyde resin was used in bonding the veneers. Specific pressure influenced the MOR of LVL

parallel to grain but not perpendicular to grain. The MOR was lower when the load was applied perpendicular to the laminae because the area under stress was not homogenous. The said area is composed of the solid wood and the glue. The glue was the weakest point where the stress could be relieved. In the specimens wherein the load was applied parallel to the laminae, the area under stress was the area of the laminae (wood) which is homogenous. LVL from 6.5mm veneers had higher MOR and glue bond properties than LVL from 10mm veneers. The MOR of LVL composed of thinner veneers was stronger/higher because the veneers used had fewer and less shallow lathe checks compared to thicker veneers. On the other hand, LVL from both thickness have superior properties compared to solid sawn lumber of the same species. The LVL made of thinner laminae (6.5mm) was greatly affected by the specific pressure and pressing time. It was found that the higher the specific pressure and pressing time, the better would be the development of glue bond.

46.

Simamora, Hasudungan, Yahya Fakuara and Soedarmadi

1986. Pengaruh penambahan kotoran ayam dan serbuk gergaji pada media persemaian *Gmelina arborea* L. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : nursery medium
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Gmelina arborea*
Sites : INA
Year Started : 1986
Year Completed : 1986
Notes : -

47.

Siriban, Felino R., Benjamin S. Morelos, Aquino, Catalino C. Pabunyon, Jesus A. Parayno and Dionisio Servanez

1990. Preservative treatment and service testing of ITPS and CLAS for railroad ties. FPRDI-DOST Operations Plan.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : 1989
Year Completed : 1993
Notes : Forty-three pieces of yemane (*Gmelina arborea*) ties were installed in the Philippine National Railroad track located in IRRI, Los Banos, Laguna. Of these, 24 pieces were creosoted, 8 pieces treated with 5% copper-chrome-arsenate (CCA) solution, and 11 untreated served as control. The ties are all in sound condition with no sign of rail-cutting after 12 months in service. However, slight to moderate surface checks were observed but these do not affect the performance of the ties. The ties were still in their original state after 11 months in service.

48.

Suad, Emmanuel Noll B.

1987. Rotary veneer cutting of four fast-growing plantation hardwood species. FPRDI Journal 16(1):86-104.

Language : English
Key Words : knife angle, mosebar compression, rotary cutting, veneer
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Specie : *Leucaena leucocephala*, *Gmelina arborea*, *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1984
Year Completed : 1986
Notes : This study dealt with the rotary cutting of four fast-growing plantation hardwood species: kaatoan bangkal

(*Anthocephalus chinensis* (Lamk.) Ri ch. ex. Walp.), giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit), Mollucan sau (*Albizia falcataria* (L.) Fosb.) and Yemane (*Gmelina arborea* R. Br.). The effects of mosebar compression (NC), knife angle (KA) and veneer thickness (VT) on quality of veneer produced per specie were evaluated. The criteria used for evaluation were thickness uniformity, depth of lathe checks (tightness) and surface smoothness. Veneer thickness was found highly significant in relation to the tightness and smoothness of the four plantation species.

49.

Suhendi, Hendi

1985. Hasil pendahuluan mengenai percobaan provenansi *Gmelina arborea*.

Language : Indonesian
Key Words : provenance trial
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Gmelina arborea*
Sites : Indonesia
Year Started : 1979
Year Completed : 1980
Notes : -

50.

Suparman, Salman Parisy and Dayanto Indro Utomo

1988. Pengaruh bahan pencampur, wadah simpanan dan periode simpan terhadap viabilitas benih *Gmelina arborea* Linn. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : viability, container
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Gmelina arborea* Linn.
Sites : Indonesia
Year Started : 1988
Year Completed : 1988
Notes : -

51.

Tamolang, Felix B and Jesus E. Rocafort

1987. Physio-mechanical properties and possible uses of eleven plantation-grown timber species in the Philippines. FPRDI Journal 16(1):75-85.

Language : English
 Key Words : volumetric shrinkage, bending, shear, compression, hardness, toughness
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CP
 Species : *Eucalyptus deglupta*, *Leucaena leucocephala*, *Albizia falcataria*, *Gmelina arborea*
 Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : This study presents the indicative average physical and mechanical properties of 11 plantation-grown timber species in the Philippines. The properties were determined from tests on small clear specimens of timber. Properties studied include relative density, shrinkage, bending, shear-parallel-to-grain, compression-parallel-to-grain and compression-perpendicular-to-grain, hardness and toughness. Based on the classification of the species in accordance with the five physico-mechanical property groupings devised by FPRDI, (a) Giant ipil-ipil, Benguet pine, big leafed mahogany, yemane and teak are recommended for medium construction purposes; (b) Para-rubber for moderately light construction; and (c) Kaatoan bangkal, moluccan sau, gubas, bagras and lumbang for light construction purposes where strength and durability are not critical requirements. The values presented only apply to defect-free materials and care should be taken when they are used for structural design purposes.

52.

Tan, Kee Chong

1989. The effect of topographic position on the growth of *Gmelina arborea* and *Acacia mangium*. Regional Symposium on Recent Developments in Tree Plantation of Humid/Sub-Humid Tropics of Asia. UPM, Serdang, Malaysia, 1989.

Language : -
 Key Words : productivity, Topographic position
 Executing Agency : SS
 Funding Agency : SS
 Status : CP
 Species : *Gmelina arborea*, *Acacia mangium*
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : 1989
 Notes : -

53.

Tan, K. C. and M. S. Sim

1986. The effect of topographic position on the growth of *Gmelina arborea* and *Acacia mangium*. Proceedings of the Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : English
 Key Words : silviculture, site factors, site-species testing, growth
 Executing Agency : FDS
 Funding Agency : FDS
 Status : CP
 Species : *Gmelina arborea*, *Acacia mangium*
 Sites : Sarawak, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

54.

Tan, K. C. and N. Jones

1982. Fast-growing hardwood plantations on logged-over forest sites in Sabah. Malaysian Forestry 45(4).

Language : English

Key Words : forest policy, forestation programmes, compensatory plantation, objectives, yield

Executing Agency : FDS

Funding Agency : FDS

Status : CP

Species : *Albizia falcataria*, *Eucalyptus deglupta*, *Gmelina arborea*

Sites : Sabah, Malaysia

Year Started : -

Year Completed : -

Notes : -

55.

Ting, Sie Ping

1986. Site evaluation for reforestation and rehabilitation project in Sarawak. Ninth Malay. For. Conference, Kuching, Sarawak. October 1986.

Language : English

Key Words : planning, field survey, growth characteristics, species-site matching

Executing Agency : FDSar

Funding Agency : FDSar

Status : CP species : *Acacia mangium*, *Albizia falcataria*, *Gmelina arborea*, *Durio zibethinus* and many others

Species : -

Sites : Sarawak, Malaysia

Year Started : 1984

Year Completed : -

Notes : -

56.

Valencia, Angellto R.

1979. Effects of fertilization on the survival and growth of stumps and potted Yemane (*Gmelina arborea* (Linn.) Roxb.) seedlings outplanted in an open grassland. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English

Key Words : survival, silvicultural treatments, potted, stumps, yemane

Executing Agency : MS Thesis

Funding Agency : FORI

Status : CU

Species : *Gmelina arborea*

Sites : Calamba, Laguna, Philippines (450 meters)

Year Started : 1977

Year Completed : 1978

Notes : The effects of fertilization on the survival and growth of stump and pot planted yemane seedlings were studied under grassland conditions during a six-month period. In addition, some soil physical and chemical properties (pH, organic matter, nitrogen, phosphorus and potassium) were affected by silvicultural treatments and fertilization were also studied during the first third and sixth month after planting. Plant nutrient content and uptakes were determined at harvest. The study was conducted as a split-plot experiment in a randomized complete block design with silvicultural techniques (seedling stump and potted seedling) as main plots and five levels of complete (14-14-14) fertilizer treatments (0, 3, 6, 9 and 12 g/seedling) as sub-plots. The site was an abandoned kaingin area predominantly vegetated with cogon and talahib grasses. Survival of stumps and potted seedlings was generally high during the 6-month period. Survival of stump-planted seedlings was higher than that of the pot-planted seedlings but differences were not significant. Survival of seedlings was not affected by fertilizer treatments and interaction effects of fertilizer and silvicultural treatment during the first and third months may be due to favorable soil moisture conditions of the site. Another reason is that the seedlings were not exposed to adverse site conditions for a long time. It is shown that stump-planted seedlings have the ability to survive and grow under adverse environmental conditions of the site.

57.

Why, Kong Hoi

1987. Fuelwood trees for rural industries.

National MPTS Seminar. FRIM, Kepong.

Language : English
 Key Words : fuelwood, smoking of rubber sheets, tobacco curing, brick making
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Hevea brasiliensis*,
Rhizophora apiculata,
R. mucronata,
Melaleuca cajuputi,
Vitex sp.,
Albizia falcataria,
Gmelina arborea,
Acacia mangium,
Eucalyptus deglupta
 Sites : Kepong, Malaysia
 Year Started : 1985
 Year Completed : -
 Notes : -

58.

Wong, W. C. and K. C. Khoo

1981. *Gmelina arborea* - a literature review. FRIM Report No. 14.

Language : -
 Key Words : -
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Gmelina arborea*
 Sites : Kepong, Malaysia
 Year Started : -
 Year Completed : 1981
 Notes : -

59.

Yap, S. K. and S. M. Wong

1983. Seed biology of *Acacia mangium*, *Albizia falcataria*, *Eucalyptus* spp., *Gmelina arborea*, *Maesopsis eminii*, *Pinus caribaea*, and *Tectona grandis*. Malaysian Forestry.

Language : English
 Key Words : silviculture, seed morphology, seed extraction, germination

testing
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
Albizia falcataria,
Eucalyptus spp.,
Gmelina arborea,
Tectona grandis
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

60.

Yong, C. T.

1984. Compensatory plantations in Peninsular Malaysia. Proceedings of the Seminar on Forest Plantation Development in Malaysia.

Language : -
 Key Words : forest policy, implementation strategy, financing, silviculture
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
Gmelina arborea,
Albizia falcataria
 Sites : Sabah, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

61.

Zabala, Neptali Q.

1985. Provenance trials of some fast growing tree species. Terminal Report.

Language : English
 Key Words : -
 Executing Agency : UPCF
 Funding Agency : PCARRD
 Status : CU
 Species : *Gmelina arborea*
 Sites : College, Laguna; Santa, Ilocos Sur, Philippines

Year Started : 1980

Year Completed : 1985

Notes : Results of the provenance trials of *Gmelina arborea* established in Makiling Forest showed that there were no significant difference between the two provenances, Magat and Cebu, in the growth and wood characteristics measured such as diameter, height, specific gravity and fiber length.

1.

Adnan, Mohammad

1986. MPTS: an urban forestry perspective. Proc. National MPTS. Kepong, Malaysia.

Language : English
Key Word : -
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Acacia auriculiformis*,
Gliricidia sp.,
Casuarina sp.,
Leucaena sp.
Sites : Kepong, Malaysia
Year Started : 1986
Year Completed : -
Notes : -

2.

Aggangan, Romulo T.

1985. Responses of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) seedlings to rhizobium and mycorrhiza inoculation and nitrogen and phosphorus fertilization. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : mycorrhiza inoculations, phosphorus fertilization, synergistic effect, ipil-ipil
Executing Agency : MS Thesis
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : Puting Lupa, Calamba, Laguna, Philipines (300 meters)
Year Started : 1983
Year Completed : 1984
Notes : This study was conducted to determine the effects of rhizobium, VA mycorrhiza, nitrogen, phosphorus and their combinations on the growth, nutrient content and uptake, and nodule dry weight of ipil-ipil planted by direct seeding in a grassland area. Nitrogen plus phosphorus fertilization significantly

increased total height and diameter, total dry matter yield, nitrogen, potassium, calcium and magnesium uptakes of ipil-ipil seedlings as compared with the control. Likewise, inoculation with VA mycorrhiza plus N fertilization significantly increased total height and diameter, total dry matter-nitrogen, potassium, calcium and magnesium uptakes of ipil-ipil seedlings as compared with that of the control. Inoculation with rhizobium plus phosphorus fertilization significantly enhanced nitrogen uptake of ipil-ipil seedlings as compared with that of the other treatments. It also increased total height and diameter, total dry matter yield, phosphorus, potassium, calcium and magnesium uptakes of ipil-ipil seedlings, although the effects of these treatments on these parameters were not significantly different to those of the other treatments including control. Fertilization with either nitrogen or phosphorus increased total height and diameter but effects on total height and diameter were not significantly higher than that due to rhizobium, VA mycorrhiza, rhizobium plus VA mycorrhiza and the control treatments. However, nitrogen or phosphorus fertilization significantly increased total dry matter.

3.

Agpaoa, Alfredo C.

1980. Direct seeding of phosphorus and rhizobium-coated ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) seeds on Philippine grassland. Effects of grass height, density and lodging on seedling growth and survival. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : rhizobium-coated, direct seeding, root/shoot ratio, survival
Executing Agency : MS Thesis
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : Calamba, Laguna, Philippines (457 to 473 meters)

Year Started : -
Year Completed : -
Notes : Three experiments were conducted to find out the effect of seed treatments on germination, seedling survival, height, growth, biomass and root/shoot ratio of ipil-ipil seedlings. After seed germination was completed, grasses around germinated seedlings were thinned to different densities, lodged and cut to different heights to find out its effect on the survival, growth, biomass, and root/shoot biomass ratio of the seedlings. In all three experiments, phosphorus coating was found to have significantly decreased germination rate of the seeds while rhizobium inoculation of the seeds markedly increased height and biomass of seedlings six months after germination. Lodging grasses once a month and every 2 months for five months did not affect height growth and biomass production of local ipil-ipil seedlings but it did retard height growth and increased biomass of ipil-ipil seedlings. Lodging did not increase biomass of K-28 ipil-ipil seedlings but it retarded growth. Cutting grasses retarded height growth of K-8, K-28 and local ipil-ipil seedlings and increased biomass of K-8, K-28 ipil-ipil seedlings but not local ipil-ipil seedlings. Root/shoot biomass ratio of seedlings of all the ipil-ipil cultivars six months after germination was increased by cutting as well as lodging the grasses. Higher survival of seedlings was attained in the plots where grasses were not cut than in the plots with cut grasses.

4.

Ahmad, Norami Bt. and Maziah Bt. Zakaria

1987. Mycorrhizal experimentation with some timber tree species in Malaysia. Proceedings of Asian Seminar on Trees and Mycorrhiza. Kuala Lumpur, Malaysia.

Language : English
Key Words : autecology, simbiotic relationship, VA mycorrhiza, inoculation, mycorrhiza testing
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP

Species : *Albizia falcataria*,
Gmelina arborea,
Intsia palembanica,
Leucaena leucocephala
Sites : Malaysia
Year Started : -
Year Completed : -
Notes : -

5.

Ahmad, Nordini

1981. Growth of *Leucaena leucocephala* in relation to soil pH, nutrient levels and rhizobium concentration. Malay. For. 44:516-123.

Language : English
Key Words : rhizobium inoculation, pH, soil fertility
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *Leucaena leucocephala*
Sites : Kepong, Malaysia
Year Started : -
Year Completed : 1981
Notes : -

6.

Ahmed, Maruf, Kalim Uddin, Md. Shahid Ullah, M. Z. Abedin, A. S. M. Mahub and H. Rahman

Feasibility study of different agroforestry module in the homestead of flat Barind area and its interaction with existing farming system.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Leucaena leucocephala*,
Artocarpus integrifolia,
Mangifera indica,
Eucalyptus camaldulensis
Sites : F.S.R. site, Narhatta,
Bogra, Bangladesh
Year Started : 1989
Year Completed : -

Notes : -

7.

Amata-archachai, Peerasak and Kowit Sombun

1982. Effect of different methods of seed germination on *Leucaena leucocephala* Lam. (de Wit). Silvicultural Research Bulletin. Forest Research Department. 99-116.

Language : Thai
Key Words : seed germination
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Muang, Changwat saraburi, Thailand (45m)

Year Started : 1979
Year Completed : 1979

Notes : The following methods for seed germination were studied: seeds soaked for 10 minutes in hot water and 24 hours in water, soaked 10 minutes in concentrated sulfuric acid, scarified with nail cutter at 2 mycopylar ends in small triangular file.

8.

Aquino, Manuel B.

1988. Regeneration of giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) by the coppice method. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : ipil-ipil, coppice method, sprout growth, regeneration
Executing Agency : MS Thesis
Funding Agency : PAC
Status : CU
Species : *Leucaena leucocephala*
Sites : Magalang, Pampanga, Philippines

Year Started : 1986
Year Completed : 1987
Notes : A study to determine the influence of stump height, stump

diameter, number of sprouts left per stump, methods of cutting the tree and the use of insecticides on the coppice regeneration of ipil-ipil (K-8) was conducted at the six-year-old ipil-ipil plantation of the Pampanga Agricultural College. The study had two phases: a) biomass determination for four months and b) sprout growth evaluation for six months. In phase I, the pre-sprouting period, sprouting period, number of sprouts produced per stump and average weight (green biomass) of the sprouts per stump, were determined. Irrespective of the treatment used, sprouting started on the third or fourth day after cutting down the trees and continued for about four to six weeks hence. More sprouts were produced by those with taller stumps than those with shorter stumps. Similarly, larger and taller stumps produced greater amounts of biomass than smaller and shorter stumps. When one sprout was left per stump, greater average weight (biomass) was obtained compared to that of stumps with more (2 to 3) sprouts. Total biomass per stump, however, is greater when more sprouts (2 to 3) are left on the stump. Stump height and number of sprouts left per stump affected the diameter growth of sprouts. Higher stump and less number of sprouts per stump attained higher diameter growth increment. Stump diameter did not affect diameter growth of sprouts.

9.

Baconguis, Santiago R. and Cesar S. Rondilla

1979. Infiltration studies on giant ipil-ipil (*Leucaena leucocephala*) plantation sites at the Buhisan Watershed. Philippine Forest Research Journal 4(1):23-29.

Language : English
Key Words : infiltration, shifting cultivation, erosion, fertility, sedimentation
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Buhisan Watershed, Cebu, Philippines

Year Started : 1978
Year Completed : -
Notes : Relative rates of water entry into the soil under two giant ipil-ipil plantation sites were studied. Results show significant differences in infiltration rates between the two areas at $P = 0.05$ level. The mean infiltration rate for the plantation without interplanting of agricultural crops is 4.25 liters/minute and 1.98 liters/minute with interplanting. Cumulative infiltration for both sites with respect to time follows a linear pattern.

10.

Baharum, Abdul Rahman

1979. Effect of mycorrhizal inoculation and soil types on the growth of *Leucaena leucocephala*. CV Peru. Bachelor of Science in Forestry Thesis, Universiti Pertanian Malaysia.

Language : English
Key Words : endomycorrhiza, soil types
Executing Agency : UPM
Funding Agency : UPM
Status : CU
Species : *Leucaena leucocephala*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1979
Notes : -

11.

Baltazar, C.

IDRC (AEC/ASIA/CIBC) *Leucaena psyllid* bio-control.

Language : English
Key Words : -
Executing Agency : -
Funding Agency : PCARRD-IDRC
Status : OR
Species : *Leucaena leucocephala*
Sites : -
Year Started : 1989
Year Completed : -
Notes : -

12.

Barangan, Florendo B.

1984. Demonstration project on ipil-ipil for fuelwood and leafmeal production in the Ilocos Region. Terminal Report. Philippines.

Language : English
Key Words : -
Executing Agency : FORI
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : Ilocos Region, Philippines

Year Started : 1981**Year Completed** : 1984

Notes : The growth performance of ipil-ipil in the lowland (cultivated) areas was much better than those planted in grassy hilly areas. The average survival after 6 months in all the areas planted was 89%. After one growing season, the survival was reduced to an average of 75% which was not bad due to the prolonged dry season in that region and particularly that year. Leafmeal Demonstration Area: Since ipil-ipil for leafmeal is not very popular in the area due to lack of demand for the products, the farmer-cooperators are not very receptive to the project.

13.

Barangan, Florendo, Valerio T. Rabanal and Marcelino Dalmacio

1984. Demonstration project on Ipil-ipil for fuelwood and (leafmeal) production in the Ilocos Region. Terminated.

Language : English
Key Words : leafmeal, fuelwood, ipil-ipil
Executing Agency : FORI
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : 1981**Year Completed** : 1984

Notes : Survival. The average survival after 6 months in all the areas

planted was 89%. After one growing season, the survival was reduced to an average of 75% which was not bad due to the prolonged dry season in that region and particularly that year. Growth performance was much better than for trees planted in the grassy hilly areas. Last measurement in December 1983 showed that the average dbh and height in the hilly areas are 1.5 cm. and 1.5 meter, respectively. Lots J and M had very poor growth with only 1.75 and 1.90 m dbh, respectively. This has been attributed to the different soil conditions of these areas. These are mostly sandy and being in lower elevations that the rest, these are water-logged during rainy season. Lots E and L are the most productive areas with 7.20 and 7.40 cm dsh, respectively.

14.

Barile, Efren, Felino R. Sriban and Benjamin S. Morales

1986. Development of treatment schedules on branches and thinnings of giant ipil-ipil and kaatoan bangkal for use as props.

Language : English
Key Words : branches, thinnings, cca (copper-chrome-arsenate), copper sulfate water-borne
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1984
Year Completed : 1985
Notes : Freshly cut branches and thinnings of giant ipil-ipil (*Leucaena leucocephala*) and kaatoan bangkal (*Anthocephalus chinensis*) were treated with copper-chrome-arsenate and copper sulfate at 8% concentration. Analysis of data on the absorption of water-borne preservatives by branches and thinnings showed that there was no interaction among length of air-drying time, preservative and soaking time. The best possible treatment combination that can obtain the highest absorption of preservative is 3-day air-drying

and 3-day soaking. At 3 days after cutting and 3 days soaking, the branches and thinnings were still in their green stage such that they can retain much preservative. The same treatment combination obtained the highest end-penetration of the preservative on the branches and thinnings. Data on the side-penetration of water-borne preservative on the branches and thinnings showed that there was interaction among the three factors and between treatment combinations. The side penetration of the preservative was limited compared to the end-penetration.

15.

Bartolome, Hillisa T.

1983. Mycorrhiza, rhizobium and phosphatizing bacteria effects on the nutrient status and growth performance of Ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) and mungo (*Vigna radiata* Wilczed). Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : phosphatizing bacteria, mycorrhizal fungi, inoculation, rhizobium
Executing Agency : MS Thesis
Funding Agency : BIOTECH
Status : CU
Species : *Leucaena leucocephala*
Sites : Pantabangan, Nueva Ecija, Philippines
Year Started : 1981
Year Completed : 1982
Notes : A study was conducted to determine the effects of inoculation with mycorrhizal fungi, rhizobium, phosphatizing bacteria and various combinations of these organisms on the nutrient status and growth performance of ipil-ipil and mungo in an unfertilized marginal grassland area. Mycorrhiza and rhizobium, inoculated separately or together, appreciably enhanced the growth performance and increased the nutrient status of ipil-ipil. However, poor growth and low nutrient uptakes were consistently observed in ipil-ipil seedlings

inoculated with phosphating bacteria. Inoculation of mungo with the mycorrhizal endophyte of ipil-ipil markedly depressed growth of the former while inoculation with rhizobium had no discernible effect on its growth and nutrient status. Single inoculation with phosphating bacteria, however, greatly stimulated growth of mungo and considerably improved its nutrition. Growth responses to microbial inoculation under the conditions of the present study depend on the plant species and the specific microbial inoculation used. Inoculation with suitable and efficient species and strains of mycorrhizal fungi, rhizobium, phosphating bacteria or combinations of these organisms may lead to successful agroforestry in marginal grassland areas.

16.

Basuki, Suwidji

1989. Pembuatan pulp semi kimia-semi mekanis kayu lamtoro. Jurnal Penel. dan Pengemb. Kehutanan, Vol. V, No. 1:7-10, Meret.

Language : Indonesian
 Key Words : semi chemical-semi mechanical pulping
 Executing Agency : FPRI
 Funding Agency : FPRI
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : Indonesia
 Year Started : 1988
 Year Completed : 1988
 Notes : -

17.

Bato, S. M. and C. H. Ballou

1981. Natural resistance of *Leucaena* species to insects and decay fungi. FPRDI Terminal Report. FPRDI, College, Laguna, Philippines.

Language : English
 Key Words : decay fungi, biodeteriorating agents, termites, ipil-ipil strains
 Executing Agency : FPRDI

Funding Agency : NSDB-FPRDI
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : College, Laguna, Philippines
 Year Started : 1978
 Year Completed : 1981
 Notes : The natural resistance of three strains of giant ipil-ipil (K-8 and K-67) to wood destroying insects and decay fungi was determined by measurement of weight loss. Resistance to test insects, in decreasing order, were as follows: K-8, K-67, K-28. There were differences in response within the tree both longitudinally and radially. The three strains of giant ipil-ipil responded differently to four decay fungi. Natural resistance of wood varied in four species of decay organisms and was influenced by the longitudinal position within the tree.

18.

Blom, P. S.

1981. *Leucaena*, a promising versatile leguminous tree for the tropics. The International Tree Crops Journal, 1:221-236.

Language : English
 Key Words : promising leguminous tree
 Executing Agency : DARN
 Funding Agency : DARN - Dept of Agricultural Research Royal Tropical Institute, Netherlands
 Status : CP
 Species : *Leucaena*
 Sites : -
 Year Started : 1980
 Year Completed : 1980
 Notes : -

19.

Boontawee, Boonchoob, Bunyarit Puriyakorn, Surachai Pransin, Koetkong Pitpricha, Somboon Kiratiprayoon and Thiti Wisarat

1988. Aboveground biomass of five-year-old fast growing species in plantations of

different spacing. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
Key Words : biomass, spacing
Executing Agency : RFD
Funding Agency : RFD
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Azadirachta indica,
Cassia siamea,
Leucaena leucocephala
Sites : Amphoe Mae Taeng,
Changwat Chiang Mai,
Amphoe Muang,
Changwat Ratchaburi,
Amphoe Chum Phae,
Changwat Khon
Kaen, Thailand
Year Started : 1981
Year Completed : 1986
Notes : -

20.
Bote, Pio P.

1984. An analysis of some economic factors affecting wood production in giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) tree farms in Lanao Province. Philippine Forest Research Journal 9(3-4):177-196.

Language : English
Key Words : wood production,
ipil-ipil, tree farms,
man-labor, operating
expenses, tools and
equipment
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Lanao, Philippines
Year Started : 1982
Year Completed : 1982
Notes : Problems encountered
in the conduct of this study are as follows:
there are no reliable and certified seed
sources available for the farmers; the

technical supervision and assistance by the Bureau of Forest Development and the Development Bank of the Philippines was inadequate, resulting in high mortality rates of giant ipil-ipil trees in plantations; and lastly, the loans made to farmers were misallocated by the farmers. The last problem points out the inadequacy of loan supervision by the financing institution.

21.
Bumatay, Ernesto C.

Effect of fertilization on the growth and survival of giant ipil-ipil and agohe seedlings outplanted in grasslands in Region VII.

Language : English
Key Words : -
Executing Agency : VISCA
Funding Agency : VISCA
Status : CU
Species : *Leucaena leucocephala*
Sites : VISCA, Baybay, Leyte,
Philippines
Year Started : 1982
Year Completed : 1984
Notes : -

22.
Bumatay, Ernesto C.

1978. Effects of fertilization on the growth and survival of agohe (*Casuarina equisetifolia* Forst.) and giant ipil-ipil Hawaiian variety (*Leucaena leucocephala* (Lam.) de Wit) seedlings outplanted in a grassland. Master of Science Thesis. University of the Philippines in Los Banos, College, Laguna, Philippines.

Language : English
Key Words : fertilization, ipil-ipil,
dilution effects
Executing Agency : MS Thesis
Funding Agency : SEARCA
Status : CU
Species : *Leucaena leucocephala*,
Casuarina equisetifolia
Sites : Calamba, Laguna,
Philippines (450 meters)
Year Started : 1977

Year Completed : 1978
Notes : The effects of fertilization (N0P0, N0P1, N0P2, N1P0, N1P1, N1P2, N2P0, N2P1 and N2P2) on the growth and survival of agoho and giant ipil-ipil seedlings outplanted in a grassland were studied during a six-month period. In addition, some soil properties, climatic variables and their inter-relationships were also studied. Plant nutrient content and uptakes were determined six months (at harvest) after planting. Survival of agoho seedlings during the first month was significantly higher than that of giant ipil-ipil seedlings. Survival differences were not significant, however, between the two species at harvest. Survival was not affected by fertilizer treatments. Height growth of agoho seedlings was significantly higher than that of giant ipil-ipil seedlings during the first, second, fourth and sixth month. At harvest, height growth of agoho seedlings averaged 44.16 cm as compared to 14.81 cm for giant ipil-ipil seedlings. Height growth was significantly increased by NP fertilization treatments during the first month. N2P1 treatment gave the highest height growth of both seedlings (17.17cm) as compared to N0P0 treatment (8.53cm). During the second, fourth and six month, however, N1P2 treatment gave the highest height growth. Diameter growth of giant ipil-ipil seedlings was significantly larger than that of agoho seedlings during the first and second month. Diameter growth response was significantly increased by NP fertilizer levels during the first and sixth month with N2P0 treatment giving the largest diameter growth.

23.

Bunyavejchewin, Sarayudh and Bunyarit Puriyakorn

1984. Net primary productivity of five tree species and change in soil properties after 30 months of growth. Proceedings of the Forestry Conference, Royal Forest Department, 2:148-165.

Language : Thai
Key Words : biomass, soil properties
Executing Agency : RFD
Funding Agency : -

Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Cassia siamea,
Azadirachta indica
Sites : Amphoe Muang,
Changwat Ratchaburi,
Thailand (35m)
Year Started : 1982
Year Completed : 1983
Notes : Maximum primary productivity was recorded for *E. camaldulensis* in comparison to the remaining 4 species. Major soil nutrients were higher than the adjacent area 30 months after tree plantings.

24.

Bunyavejchewin, Sarayudh

1986. The relationship between planting distance and growth above-ground biomass and firewood production in *Leucaena leucocephala* de Wit at Sakaerat, Pak Thong Chai, Nakhon Ratchasina.

Language : Thai
Key Words : biomass, growth,
firewood production,
spacing
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Pak Thong
Chai, Changwat Nakhon
Ratchasima,
Thailand (500m)
Year Started : 1984
Year Completed : 1984
Notes : -

25.

Bunyavejchewin, Sarayudh, Bunyarit Puriyakorn and Boonchoob Boontawe

1983. Above-ground biomass, firewood and charcoal and nutrient and energy production of five tree species. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section.

132-143.

Language : Thai
Key Words : biomass, firewood, charcoal production, nutrient
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Azadirachta indica*, *C. siamea*
Sites : Amphoe Muang, Changwat Ratchaburi, Thailand (35m)
Year Started : 1983
Year Completed : 1983
Notes : Maximum above-ground biomass, firewood, charcoal production and nutrient accumulation were recorded for *L. leucocephala* while the minimum values were found in *A. auriculiformis*.

26.

Cabral, R., Unciano, Layog, Gonong and Malayba

1990. Design and development of Ipil-ipil seeds grinder. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : pulverizer, stone grinder, bar mill grinder, FPRDI Wiley mill
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1989
Year Completed : 1990
Notes : Seeds were ground using the following grinders: complex type of Taiwan Machineries Inc., Bar Mill grinder of Silangan Machineries Inc., the FPRDI Wiley Mill and the Crude Stone grinder pulverizer being used by puto makers, . The

data gathered were tabulated after screen analysis using the Tyler screen with mesh 80, 100 and 150. This particle size was presented/ categorized as 100 mesh retained and 100 mesh passed. By the end of the year a locally fabricated machine for grinding ipil-ipil seeds shall have been developed for this purpose, the technology for the production of ipil-ipil seed gum can be piloted.

27.

Cadiz, Rafael T.

1982. Response of Ipil-Ipil (*Leucaena leucocephala* (Lam.) de Wit) to Rhizobium inoculation. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : rhizobium inoculation, ipil-ipil, pot experiment, field experiment
Executing Agency : MS Thesis
Funding Agency : FOR
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1981
Year Completed : 1981
Notes : Pot and field experiments were conducted simultaneously to determine and evaluate the effects of Rhizobium sources, time of inoculation and their combined effects on directly seeded ipil-ipil (K-8 variety). Seedling performance both in pot and field experiments were evaluated in terms of percent nitrogen content of the leaves, shoot oven-dry weight, height, diameter and percent survival. In addition to the above parameters, nodule number and weight (ODW), root weight (ODW), and shoot root ratio were also determined in the pot study. The pot and yield studies revealed that both Rhizobium sources (CB-81) strain and local isolate rhizobia were equally effective in increasing percent nitrogen content of the leaves, shoot oven dry weight, height, stem diameter and percent survival of ipil-ipil. In pot experiments, no significant differences were

observed in both sources of rhizobia in nodule number and oven dry weight, root oven dry weight and shoot-root ratio. As to the time of inoculation, both pot and field experiments showed that seeds inoculated prior to sowing (B2) and seedlings inoculated two weeks after germination (B3) were equally effective in increasing percent nitrogen content of the leaves, shoot oven dry weight, height and percent survival of ipil-ipil. Furthermore, diameter growth was significantly increased by B2 and B3 treatments in pot study, but not in the field experiment.

28.

Calacal, Lourdes P.

1978. Nodulation inducement of four reforestation species using nitrogen.

Language : English
Key Words : nodulation, urea, fertilizer, reforestation
Executing Agency : BFRS
Funding Agency : -
Status : CU
Species : *Leucaena leucocephala*, *Pithecelloidium dulce*
Sites : Batac, Ilocos Norte, Philippines
Year Started : 1977
Year Completed : 1978
Notes : Seedlings applied with 15 grams of urea gave optimum weight of nodules, followed by seedlings applied with 30 grams and 5 grams of urea, respectively. Only rain tree tends to have produced nodules with no significant difference (control) from these of the fertilizer treatments. The results were obtained four months after fertilizer application. It was found that rain tree yielded the highest weight of nodule for all levels of urea followed by narra, giant ipil-ipil and camachile in that order. The trend indicates that production of nodules is affected by the interaction between species and dosage of urea fertilizer. It has been noted that there is evidence to corroborate that fertilizer application of forest plantation is necessary. Since fertilizer application can provide the nutrient needs of species for better

development.

29.

Calora, Feliciano G.

1985. Assessment of stem decay on Giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) for leaf meal production in La Mesa Dam. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : stem decay, leaf meal, stumps, discoloration, fruiting bodies
Executing Agency : MS Thesis
Funding Agency : -
Status : CU
Species : *Leucaena leucocephala*
Sites : La Mesa Dam Watershed Reservation Area (Montalban, Marikina, Quezon City, Caloocan City), Philippines
Year Started : -
Year Completed : -
Notes : Six hundred giant ipil-ipil stumps in a leaf meal production farm in La Mesa Dam were longitudinally dissected and the pattern and extent of decay were determined. The extent of decay was variable from 1.6 to 47.0 cm in length on the main stump after the first cutting, and ranged from 4.0 to 15.32 cm. in length on the first coppice after the second cutting. The pattern of discoloration and decay on stumps after the first cutting extended downwards as traced from vertical streaks. The vertical streaks of discoloration and decay spread downward centripetally distal to developing sprouts. The streaks coalesced at a later stage. Two variations in discoloration and decay on the first coppice after the second cutting of harvestable herbage for leaf meal processing were identified. The first type of variation appeared as vertical streaks of discoloration and decay spreading downward centripetally to the developing sprouts and approaching the streaks of discoloration and decay on the main stump after the first cutting. The second type of variation also appeared as vertical streaks of

discoloration and decay spreading downward centripetally distal to developing sprouts. However, the streaks or discoloration and decay on the main stump and the first coppice are not connected to each other. All the stumps examined were infected by decay fungi but only 11 stumps had fruiting bodies. Three species of fungi associated with decay were identified as *Irpe*, *Auricularia* and *Corticium*.

30.
Catibog, Corazon S.

1977. Occurrence of plant parasitic nematodes at the Forest Research Institute Nursery, Mt. Makiling, Laguna, Philippines.

Language : English
Key Words : parasitic nematodes, root-knot nematodes, root galling, susceptibility, infection
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Los Banos, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Six genera of plant parasitic nematodes associated with forest tree seedlings at the FORI nursery were identified. These were *Rotylenchulus*, *Helicotylenchus*, *Meloidogyne*, *Criconenoides*, *Hermicriconemoides* and *Hoplotaimus*. The first two were most abundant. The high nematode counts in the soil were giant ipil-ipil (*Leucaena leucocephala*), Apanit (*Mastixia philippinensis*) and Ipil (*Intsia biyuga*) were growing could be due to the susceptibility of these plants to nematode infection. Adult and egg-laying root-knot nematodes were detected in the roots of Giant ipil-ipil and of Moluccan sau (*Albizia falcataria*), which showed the root galling symptom of root-knot disease.

31.
Chaloempong, Aniwat, Theerawat
Buntaweekul and Krutsana Rodsenglam

1983. Seed-borne fungi and disease of Thai forest tree species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Biology Section. 95-91.

Language : Thai
Key Words : fungal diseases
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Leucaena leucocephala*, *Melia azedarach*
Sites : Amphoe Muang, Changwat Lampang (200-2,000m)

Year Started : 1983
Year Completed : 1983
Notes : The following seed-borne fungi and diseases have been found: *Botryodiplodia theobromae* in *A. auriculiformis*, *Drechslera rostrata*, *Fusarium oxysporum*, *Promopsis* sp., and *B. theobromae* in *M. azedarach*, and *D. hawaiiensis* in *L. leucocephala*.

32.
Chamnankit, Siripun

1980. Light intensity and germination treatment of *Leucaena leucocephala* seed. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section. 2:71-80.

Language : Thai
Key Words : seed germination, light intensity
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Ngao, Changwat Lampang, Thailand (200-2,000m)
Year Started : 1980
Year Completed : 1980
Notes : Maximum germination percentage of *L. leucocephala* was gained from hot-water treatment. Light intensity did not affect seed germination.

33.
Chamnankit, Siripun

1982. Pre-treatment of *Leucaena leucocephala* seed before sowing. Royal Forest Department. Silvicultural Research Bulletin, 105-113.

Language : Thai
Key Words : seed germination
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Nagao,
Changwat Lampang,
Thailand (200-2,000m)
Year Started : 1980
Year Completed : 1980
Notes : Five treatments were applied. Soaking the seeds in boiling water until it cooled down (4 hours) gave the highest germinating population. In addition, sunlight had no effect on the seed germination.

34.
Chan, Feliza D.

Glue-laminating characteristics of some Philippine woods (giant ipil-ipil, bagras and yemane).

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*,
Eucalyptus deglupta,
Gmelina arborea
Sites : College, Laguna,
Philippines
Year Started : 1982
Year Completed : 1986
Notes : -

35.
Chan, Feliza D.

1988. Reduction of formaldehyde emission in plywood and particleboard using giant

ipil-ipil seed flour. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : formaldehyde emission, wheat flour, plywood, particleboard
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1987
Year Completed : 1988
Notes : The effect of wheat flour and giant ipil-ipil seed flour, pressing time and level of extension on the bond quality and formaldehyde emission on yemane (*Gmelina arborea*) plywood using urea-formaldehyde resin was investigated. Giant ipil-ipil seed flour has higher ash, crude protein, crude fiber contents than wheat flour. The high amounts of crude protein, crude fat and crude flour however, did not pose problems on the spreadability and water-taking capacity of giant ipil-ipil seed flour as extender. The water-taking capacity of giant ipil-ipil seed flour was comparable to wheat flour. The levels of glue extension used were 15.89, 31.78, 47.66, 63.55 and 79.44% while the pressing time used were 2, 3 and 4 minutes. Plywood samples bonded with glue mixes extended with giant ipil-ipil seed flour had significantly higher wet shear strength and wood failure compared to wheat flour extended glue mixes. These results showed that glue mixes extended with giant ipil-ipil seed flour were more water resistant compared to glue mixes extended with wheat flour. At 15.89 and 31.78 glue extension, a shorter pressing time of about 2.2 and 2.5, respectively could be applied in glue mixes extended with giant ipil-ipil seed flour, compared to wheat flour which required about 2.8 and 2.9 minutes, respectively. The shear strength retention of plywood samples bonded with glue mixes extended with giant ipil-ipil seed flour was significantly higher (69.80%) than those glued with wheat flour extended glue mixes.

36.

Chen, C. P.

1987. Trees for farmers - fodder trees. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
 Key Words : agronomy, utilization of fodder trees
 Executing Agency : MARDI
 Funding Agency : MARDI
 Status : CP
 Species : *Leucaena leucocephala*,
Glicidia sepium,
Sesbania sp.
 Sites : Serdang, Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

37.

Chomchan, Arun and Suthi Visuthidhepkul

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Products Section, 335-354.

Language : Thai
 Key Words : physical properties, mechanical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia,
C. junghuhniana
 Sites : Changwat Prachuap
 Khiri Khan, Nakhon
 Ratchasima, Songkhla,
 Khon Kaen,
 Chaiyaphum,
 Ratchaburi, Nakhon
 Si Thammarat,
 Si Sa Ket, Thailand
 (130-500m)
 Year Started : 1981
 Year Completed : 1981
 Notes : -

38.

Chomchan, Arun and Winai Panyathanya

1981. Proceedings of the Forestry Conference. Royal Forest Department. Forest Products Section, 213-228.

Language : Thai
 Key Words: fast-growing species, density, ash content, calorific value, heating value
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Casuarina junghuhniana,
Acacia auriculiformis,
Leucaena leucocephala,
A. indica, *T. siamensis*,
B. arundinacea
 Sites : Thailand
 Year Started : 1981
 Year Completed : 1981
 Notes : -

39.

Chomchan, Arun, Suthi Visuthidhepkul and Pirom Hoatakul

1985. Properties and utilization of fast-growing trees. Proceedings of the Forestry Conference. Royal Forest Department, 2:298-329.

Language : Thai
 Key Words : mechanical properties, physical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Acacia auriculiformis,
Casuarina junghuhniana,
C. equisetifolia,
Melia azedarach,
Eucalyptus camaldulensis
 Sites : Amphoe Sanam Chai
 Khet, Changwat
 Chachoengsao, Amphoe
 Khon San, Changwat
 Chaiyaphum, Amphoe
 Pak Chong, Changwat

Nakhon Ratchasima,
Thailand
Year Started : 1985
Year Completed : 1985
Notes : -

40.

**Chomchan, Arun, Winai panyathanya,
Thongtham Chaikwang, Pramuk
Thichakorn and Arkom Wetsupasuk**

1981. Proceedings of the Forestry
Conference. Royal Forest Department.
Forest Products Section, 229-254.

Language : Thai
Key Words : fast-growing species
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Eucalyptus
camaldulensis,
Casuarina junghuhniana,
C. equisetifolia,
Leucaena leucocephala
Sites : Thailand
Year Started : 1981
Year Completed : 1981
Notes : -

41.

Cofolan, Erlinda D.

1989. Growth and survival of black pepper
(*Piper nigrum* Linn.) planted under ipil-ipil
(*Leucaena leucocephala* (Lam) de Wit). Don
Mariano Marcos Memorial state University
College of Agriculture and Forestry,
Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Alipang, Rosario, La
Union, Philippines
Year Started : 1987
Year Completed : 1988
Notes : Twenty one (21) black

pepper seedlings were used in the study.
Spacing used followed the spacing of the
ipil-ipil trees which served as the support of
the pepper plants. The depth of planting the
seedlings was 30 centimeters. One (1)
kilogram of organic manure was
incorporated with the soil hole. It was
observed that there was an increase in the
mean length of vines measured at monthly
interval from planting up to the last month
of the study. Also observed was the
percentage of rate of growth at monthly
interval showed an increasing trend from 30
days after planting up to 150 days to all
parameters used to describe the growth.
Eighty six percent (86%) of the total number
of seedlings planted survived.

42.

Crizaldo, Enrique N.

Screening of different *Leucaena* cultivars for
their relative resistance against psyllid insect
pest.

Language : English
Key Words : -
Executing Agency : ERDB
Funding Agency : PCARRD-RRDF-USA
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna,
Philippines
Year Started : 1987
Year Completed : 1988
Notes : -

43.

**Cruz, Cerenilla A. and Margaret P.
Mejorada**

1986. Pre-sale practices and marketing
procedures of selected *Leucaena* and *Albizia*
end-products in the Philippines. Terminal
Report. PCARRD, College, Laguna,
Philippines.

Language : English
Key Words : marketing, pre-sale
practices
Executing Agency : UPLBCF
Funding Agency : PCARRD-IBRD

Status : -
Species : *Leucaena, Albizia*
Sites : -
Year Started : -
Year Completed : -
Notes : -

44.

Cruz, Cerenilla A. and Margaret P. Mejrada

Pre-sale practices and marketing procedures of selected *Leucaena* and *Albizia* end products in the Philippines. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : -
Key Words : -
Executing Agency : -
Funding Agency : -
Status : CU
Species : *Leucaena and Albizia*
Sites : College, Laguna, Philippines
Year Started : 1985
Year Completed : 1986
Notes : The study was conducted to determine, for selected *Leucaena* and *Albizia* end-products; the types and cost of pre-sale practices, identify and assess the marketing procedures of these products; conduct a survey of government regulations affecting marketing, and set up guidelines for formulation of appropriate policies on the marketing. The *Leucaena* end-products considered for the study were fuelwood, charcoal, dried leaves and poles and propping materials. For *Albizia* only pulpwood was considered. Data was collected using prepared interview schedule and library survey. Analysis of data was done using averages. Results of the study showed that the pre-sale practices of the products are affected by the kind of product and the locality. Likewise the cost of these practices is basically because of labor cost incurred. With the exception of pulpwood, it was found that the marketing procedures for *Leucaena* and *Albizia* end-products (choice of outlets, price determination, transportation arrangement, terms of sale) are similar. Government rules/

regulations which affect the production and marketing of *Leucaena* and *Albizia* end-products primarily involve cutting, gathering, collecting and transporting forest products. Among the recommendations that arose from the study are the formation of producers' cooperatives to facilitate efficient marketing.

45.

Dalmacio, Marcelino V.

1986. Assessment of site quality for *Leucaena leucocephala* and *Albizia falcataria*. Terminal Report. Forest Research Institute, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FORI
Funding Agency : WB, PCARRD
Status : CU
Species : *Leucaena leucocephala, Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : 1986
Notes : Functional relationship between age and dominant height (tree-site index method) and between site index and site properties (soil-site index method) were developed for *Leucaena leucocephala*. Development of site index prediction equation was based on 511 temporary sample plots established all over the country representing 3 climatic types. For soil-site index method, the most influencing factors affecting site index are: depth, phosphorus, magnesium and calcium content and cation exchange capacity of A-horizon, and pH, cation exchange capacity and magnesium content of B-horizon to six prediction equations were developed for this approach. The results showed that tree-site index method is more practical, efficient, less expensive and easier to conduct than the soil-site index method. Use tree-site index method cannot be applied.

46.

Das, S., J. Davidson, S. A. Khan, M. A. Latif and M. Zashim Uddin

1985. Biomass production in tree crops in Bangladesh. Silviculture Division, Bulletin No. 5, Bangladesh Forest Research Institute, Chittagong, p. 32.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Eucalyptus camaldulensis*,
E. tereticornis,
E. brassiana,
Cassia siamea,
Leucaena leucocephala
 Sites : Dinajpur and Tangail,
 Bangladesh
 Year Started : 1977
 Year Completed : 1983
 Notes : -

47.

Das, S., N. Jones and M. A. Islam

1985. Research trials on ipil-ipil in Bangladesh. Bano Biggyan Patrika 14(1&2):42-48.

Language : English
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Charajani, Tangail and
 Keochia, Chittagong,
 Bangladesh
 Year Started : 1983
 Year Completed : 1984
 Notes : -

48.

de Castro, Bayani G.

1981. Weight-volume and solid stacked volume relationships of giant ipil-ipil by size classes. Terminal Report. College, Laguna, Philippines.

Language : English
 Key Words : -
 Executing Agency : FORI
 Funding Agency : PCARRD-IBRD
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : College, Laguna,
 Philippines
 Year Started : -
 Year Completed : 1981
 Notes : Information on solid wood content for a given cord (talaksan) of giant ipil-ipil was obtained for various diameter sizes (2-12 cm) and portions (base, middle, top/branch) of the tree. From 23 models tested, a suitable weight-volume equation was chosen. Coefficient of determination was found to be 0.93. Two other models were also found appropriate to predict weight reasonably. Individual log weights can now be estimated from weight-scaling tables generated from regression equations.

49.

Dejan, Ma. Visitacion

Growth of *Leucaena diversifolia* (Schlecht.) Benth. seedlings in two grassland soils as affected by Rhizobium inoculation, fertilization and liming.

Language : English
 Key Words : liming, rhizobium isolates
 Executing Agency : MS Thesis
 Executing Agency : -
 Funding Agency : PCARRD
 Status : CU
 Species : *Leucaena diversifolia*
 Sites : College, Laguna,
 Philippines
 Year Started : 1986
 Year Completed : 1987
 Notes : The response of *Leucaena diversifolia* to rhizobium inoculation, fertilization and liming in two grassland soils was studied. Two studies were conducted sequentially. Part I involved the screening of three rhizobium isolates for effectiveness against *L. diversifolia* and part II involved the evaluation of the effect of inoculation treatment, varying fertilizer levels

and liming on the growth of *L. diversifolia* seedlings in two soil types. To assess the performance of *L. diversifolia*, height, growth, nodule dry weight, nodulation, dry matter yield, root/shoot ratio, nutrient content and uptake were used as parameters. Of the rhizobium isolates (CB 81, L6, LD9) screened for effectiveness, CB 81, an isolate from Australia was the best strain for *L. diversifolia*. Rhizobium inoculation of *L. diversifolia* seedlings with CB 81 strain in unlimed Garita and Puting Lupa grassland soils markedly increased all parameters except root/shoot ratio. On the other hand, rhizobium inoculation in limed Garita and Puting Lupa grassland soils improved nodulation and nutrient uptake but not nutrient content, height, dry matter and root/shoot ratio. Fertilization of *L. diversifolia* seedlings with complete fertilizer (14-14-14) generally have a marked increase in seedlings in two grassland soils as affected by rhizobium inoculation, fertilization and liming. Fertilization at a rate of 50kg/ha produced more vigorous seedlings than either 100kg/ha or control. Fertilization alone or inoculation alone generally resulted in marked increase in overall growth of *L. diversifolia* seedlings,

50.
dela Cruz, Reynaldo E.

1984. Phenology of selected industrial forest plantation species. Terminal Report.

Language : English
 Key Words : -
 Executing Agency : UPLB-PCARRD IND
 Funding Agency : PCARRD
 Status : CU
 Species : *Gmelina arborea*,
Albizia falcataria,
Eucalyptus deglupta,
Leucaena leucocephala
 Sites : Laguna, Nueva Vizcaya,
 Abra, Philippines
 Year Started : 1980
 Year Completed : 1984
 Notes : Diameter growth of
 selected fast-growing tree species (K.
 bangkal, yemane, Moluccan sau, red gum,
 bagras, gubas and ipil-ipil) as affected by

climatic factors (rainfall, evaporation, relative humidity, radiation, sunshine duration and air temperature) in three sites (Laguna, N. Vizcaya and Abra) was studied. Phenological phenomena (flower bud formation, flowering, fruiting, formation of matured fruits, seed dispersal, shedding of leaves, flushing and bark shedding) for each species as they relate to climate were observed.

51.
Diaz, Celso P. and Sofredo R. Chua

1985. Economic significance of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) tree farming to small farmholders. Terminal Report. PCARRD-IBRD Sub-Projects (Part II). Philippines.

Language : English
 Key Words : -
 Executing Agency : ERDB(FORI)
 Funding Agency : PCARRD-IBRD
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : Ilocos Norte; Ilocos Sur;
 Abra; etc., Philippines
 Year Started : 1981
 Year Completed : 1982
 Notes : Majority of the tree
 farmers primary source of income was
 agriculture farming. Success/failure depends
 on the attitude of the participating farmers.
 Primary reasons for joining is economic.

52.
Diongday, Macario G.

1984. Evaluation of plant species for streambank and riparian zone stabilization in the Bicol River basin. PCARRD Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
 Key Words : streambank, riparian
 zone, river basin, soil
 loss erosion
 Executing Agency : FORI
 Funding Agency : PCARRD
 Status : CU

Species : *Glinicidia sepium*,
Leucaena leucocephala,
Gmelina arborea

Sites : College, Laguna,
Philippines

Year Started : 1982

Year Completed : 1985

Notes : The average mean from various treatments studied range from 5.09 cm. to 5.73 cm. Arithmetically, it shows that of all the treatments used, mahogany is the most effective in controlling streambank erosion and is therefore recommended for streambank stabilization.

53.
Escolano, E. U.

1982. Preparation of cellulose nitrate from selected lesser-known and lesser-utilized wood species for lacquer and varnish: Agoho del Monte and Ipil-iplil. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English

Key Words : lacquer, reducing agent, cellulose nitrate, viscosity, ipil-iplil

Executing Agency : FPRDI

Funding Agency : FPRDI

Status : CU

Species : *Leucaena leucocephala*

Sites : College, Laguna,
Philippines

Year Started : 1980

Year Completed : 1982

Notes : Cellulose nitrate from high-alpha pulps of agoho del monte was formulated into clear gloss lacquer and that from giant ipil-iplil into automotive lacquer at the laboratories of Dutch Boy Philippines, Inc., Metro Manila. The analysis of the chemical properties of the produced lacquers showed that the viscosities were higher than the commercial lacquer. This may be due to the fact that the concentration of the nitrating acids used in the experiment was higher than that used in the standard viscosity was obtained. The other properties were within the specifications for lacquer.

54.
Eusebio, Grecelda A.

1983. Effect of moisture content on the flaking characteristics of giant ipil-iplil (*Leucaena leucocephala* (Lam.) de Wit). FPRDI Journal 12(3 & 4):41-48.

Language : English

Key Words : moisture content, flaking, knife-setting, dulling of knives

Executing Agency : FPRDI

Funding Agency : FPRDI

Status : CP

Species : *Leucaena leucocephala*

Sites : College, Laguna,
Philippines

Year Started : 1973

Year Completed : 1983

Notes : Four-year old giant ipil-iplil K28-variety logs with moisture content of 15%, 30%, 45% and 60% were tested for flaking characteristics. Results showed that as moisture content decreased from 60% to 15% the percentage of dust increased from 5.9 to 11.0% and flake width decreased from 2.92 to 2.12 mm. The optimum moisture content for giant ipil-iplil before flaking should be not less than 30%.

55.
Fang, Norma C.

1982. Effects of different rates of NPK on the growth of giant ipil-iplil saplings (*Leucaena leucocephala* (Lam.) de Wit) outplanted in cogonal area. Undergraduate Thesis: DMMMSU-CAF. Bacnotan, La Union, Philippines.

Language : English

Key Words : -

Executing Agency : DMMMSU-CAF

Funding Agency : -

Status : CP

Species : *Leucaena leucocephala*

Sites : Forest Research Area,
Sapilang, Bacnotan,
La Union, Philippines

Year Started : 1981

Year Completed : 1982

Notes : This study was

conducted to determine which of the different rates of NPK could give the best growth of Giant Ipil-ipil saplings. The different treatments used were as follows: (O) no fertilizer, (A) 250 kgs/ha (SLR20-0-30) control, (B) 250 kgs/ha (14-14- 14), (C) 375 kgs/ha (14-14-14). The results of the study revealed that plants applied with soils laboratory recommendation of 250 kgs/ha (20-0-30) produced the tallest while those applied with NPK fertilizer of 250 kgs/ha gave the biggest diameter. However, analysis of variance showed no significant differences among all parameters.

56.
Fellizar, Francisco, Jr. P.

1979. Net precipitation characteristics of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) stand. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : ipil-ipil, stemflow, throughfall, net precipitation, canopy storage
Executing Agency : MS Thesis
Funding Agency : UPLBCF
Status : CU
Species : *Leucaena leucocephala*
Sites : Calamba, Laguna, Philippines
Year Started : 1977
Year Completed : 1978
Notes : Net precipitation characteristics were studied for ipil-ipil (*Leucaena leucocephala* Lam. de Wit) stand for two rainy seasons. One hundred and ten rainfall events with a total of 537.2 cm of rainfall were analyzed. Stemflow was found to be 6.54% of net precipitation while throughfall 93.46%. Net precipitation was 24.24% of total rainfall; stemflow and throughfall were 1.5% and 22.65% respectively. All the stemflow, throughfall and net precipitation were linearly related to gross precipitation; the linear regression were: Stemflow = .1180 (x) - 8708, Throughfall = .5379 + .4563 (x) and Net precipitation = .8708 + .5471 (x), respectively. The stand has canopy storage

capacity of 1.75 centimeters.

57.
Francía, Purita C. and Adela C. Serrano

1984. Bench-scale laboratory viscose process of Giant ipil-ipil pulp for testing rayon cellulose. FPRDI Journal 13(2):8-15. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : alkalinity, alpha cellulose, viscose rayon, clogging constant (kw) kraft pulping
Executing Agency : FPRDI
Funding Agency : NSTA
Status : CP
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Three dissolving (rayon grade) pulps of giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) with various levels of alpha cellulose contents were processed into viscose using a bench-type equipment. The technical viscose produced with the higher alpha cellulose content had better properties in terms of cellulose content and alkalinity of the alkali cellulose, moderate bulkiness and low press ration. The Hottenroth number was used as index for ripening. The viscosity and filterability or dogging constant (kw) values of 312.50 and 669.74 indicated that the viscose was ready for spinning into rayon after 24 hours. However, the dissolving pulp with the lowest alpha cellulose content obtained filterability value of 14,897 kw. This shows that the pulp is unsuitable for spinning. Under the microscope, the filter cloth showed some impurities (dirt, silica, particle) and undissolved cellulose fibers.

58.
García, Arthur S.

1982. Initial effect of cutting levels on productivity and nutrient-hydrologic changes in Ipil-ipil (*Leucaena leucocephala* (Lam.) de

Wit) Plantation. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : cutting levels, surface run-off, sedimentation, nutrient losses, ipil-ipil.

Executing Agency : MS Thesis
Funding Agency : FORI
Status : CU
Species : *Leucaena leucocephala*
Sites : Puting Lupa, Calamba, Laguna, Philippines (400 meters)

Year Started : -
Year Completed : -
Notes : A stand of ipil-ipil was

harvested on April 1978 at various cutting intensities. to assess its one-year effect on surface run-off, sedimentation, nutrient losses, litterfall, biomass structure and net primary production. Results show that 84% of the total dry weight of the tree was found in stemwood and branch, 9% in the stem bark and only 6% in the leaves. The total aboveground biomass amounted to 0.8 kg. at 2 cm. stump diameter and 30 kg. at 12 cm. stump diameter. Cutting intensities (clearcut, 10 m² basal area plot, 5 m² plot, and control did not affect surface runoff and sedimentation significantly. Net primary production was: control, 14,335 kg/ha/yr; 10 m² plot, 21,213 kg/ha/yr; 5 m², 13,435 kg/ha/yr; and clearcut, 25,145 kg/ha/yr. A mature stand of ipil-ipil (control) enhances build-up of nutrients in the site by pumping them from the soil as nutrient uptake (260 kg N/ha/yr, 13 kg P/ha/yr, 114 kg L/ha/yr, 141 kg Ca/ha/yr, 82 kg Mg/ha/yr) and delivering them to the forest floor through its litterfall (173 kg N/ha/yr, 9 kg P/ha/yr, 16 kg K/ha/yr, 90 kg Ca/ha/yr, 50 kg Mg/ha/yr) thus increasing the fertility of its pedosphere. It showed a closed nutrient cycle allowing little nutrient loss carried by surface runoff and sediment in the amount of 0.22 kg P/ha/yr, 3.99 kg K/ha/yr, 1.47 kg Ca/ha/yr and 0.53 kg Mg/ha/yr. However if the aboveground biomass is harvested, a hectare-site could lose 661 kg N, 34 kg P, 736 kg K, 390 kg Ca and 230 kg Mg.

59.

Gascon, Antonio F.

1985. Performance of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) in open grassland using varying methods of site preparation and planting techniques under Lambunao, Iloilo conditions. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : strip cleared, spot cleared, survival percentage, ipil-ipil

Executing Agency : MS Thesis
Funding Agency : INCA
Status : CU
Species : *Leucaena leucocephala*
Sites : Forest Reservation, Iloilo National College of Agriculture, Lambunao, Iloilo, Philippines

Year Started : 1983
Year Completed : 1983
Notes : The purpose of the study

were to determine: 1) the effects of kinds of planting material 2) the effects of methods of site preparation, and 3) the interaction of the above factors on the performance of ipil-ipil in plantation. The main plot was composed of the treatments of the vegetation.

Treatment V1 made use of spot clearing, V2 strip clearing and V3 (control), cogon was just pressed down. The sub-plots comprised the following treatments of the soil.

Treatment S1-hole was dry and no cultivation was done within the 20 cm radius (also the control); S2-a hole was dug, with cultivation within the 20 cm radius and rhizomes of cogon were removed from the area; S30-a hole was dug, with cultivation within the 20 cm radius, but the rhizomes of cogon were just left in the area. The sub-plots comprised the methods of planting like: dried seedlings (M1), planting using potted seedlings (M2) and planting using bare-root seedlings (M3). These treatments were laid out in 3x3x3 split-split plots in randomized complete block design. Results of the study showed that ipil-ipil seedlings raised in areas which were strip-cleared (V2) and spot-cleared (V1) of cogon significantly induced higher height and

diameter increments. However, survival percentage was not significantly affected by the modification introduced into a cogonal site.

60.

Golosno, Buenaventura B.

1980. Biology of *Araecerus levipennis* Jordan on Ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit). Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : oviposition, ipil-ipil, *Araecerus levipennis*
Executing Agency : MS Thesis
Funding Agency : CMU
Status : CU
Species : *Leucaena leucocephala*
Sites : Calamba, Laguna, Philippines
Year Started : 1977
Year Completed : 1978
Notes : Different stages of pod development of both giant and native ipil-ipil trees were observed to determine the most preferred stage for oviposition by the beetle *Araecerus levipennis* Jordan. Adult female beetles started to lay eggs when ipil-ipil pods began to bulge out; the pods continued to be suitable for oviposition until they turned brown. The 4b stage of pod development of giant ipil-ipil manifested similar characteristics. The distinctive features were pods full-sized greenish-yellow, seeds close to each other. Both stages of pod development provided the best characteristics for oviposition. Almost 70% of the eggs were laid on pod stages 4b and 5a in both cultivars. Giant ipil-ipil pods yielded more eggs laid because their exposure for oviposition was about 10 days longer compared to native ipil-ipil pods. Oviposition was made by puncturing small holes along the sides of the pods near the tips of the seeds and placing one or two eggs in a hole. The newly emerged female adults usually laid eggs two days after the males were introduced to them for mating. A female adult laid a maximum of 45 eggs over an adult life span of 23 days.

There was a distinct difference in the beetles adult life stages and egg production when the pods from which they emerged and the pods for oviposition were different varieties. In this field, population of the adult beetles in both cultivars followed the same pattern.

61.

Gorospe, Lourdes E.

1983. Response of two-month old giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) Seedlings to different levels of time application. DMMMSU-CAF, Alipang, Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Alipang, Rosario, La Union, Philippines
Year Started : 1981
Year Completed : 1982
Notes : The different treatments used in this study were as follows: To - control, T1 - 1000 kg/ha, T2 - 2000 kg/ha, T3 - 3000 kg/ha and T4 - 4000 kg/ha. The treatments used were replicated four times following the Randomized Complete Block Design (RCBD). Based on the results from the study, the different treatments had no significant differences on the initial height of seedlings thirty days after transplanting and percentage survival. Average bi-weekly height increment average height of the plant 90 days after transplanting as well as diameter of the plant 90 days after transplanting, treatment showed significant differences. Finally, highly significant difference was observed on the final soil present humidity. This implies that lime neutralized and control the acidity of the soil. Thus, it is very essential to plants for faster growth.

62.

Gulmayen, Gloria

Fertilization of *Leucaena* and liming site for

adaptation to low pH under two climatic conditions.

Language : English
Key Words : -
Executing Agency : ERDB
Funding Agency : ERDB
Status : CU
Species : *Leucaena leucocephala*
Sites : DENR. Region IV, Philippines
Year Started : 1981
Year Completed : 1985
Notes : -

63.

Guzman, Roger Z.

1981. Direct seeding studies of ipil-ipil (*Leucaena latisiliqua* Gillis). Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : direct seeding, phosphorus-lime-coated, broadcast method, dibble method
Executing Agency : MS Thesis
Funding Agency : PASUC
Status : CU
Species : *Leucaena latisiliqua*
Sites : Cabagan, Isabela, Philippines
Year Started : -
Year Completed : -
Notes : Seven methods of site preparation on open grasslands for direct seeding of phosphorus-lime-coated and uncoated giant ipil-ipil (*Leucaena latisiliqua* Gillis) seeds were tested. Results showed that: 1) partial reduction of the grass vegetation and cultivation of the soil significantly improved the growth and survival of seedlings from both the phosphorus-lime-coated and uncoated seeds; 2) complete removal of the grass vegetation, even when accompanied by cultivation of the soil, was not effective because of the exposure of seeds and seedlings to adverse conditions; and coating of ipil-ipil seeds with phosphorus fertilizer and lime did not significantly affect

germination, growth and survival of seedlings. The broadcast and dibble methods of direct seeding giant ipil-ipil (*Leucaena latisiliqua* Gillis) seeds at four levels of seeding rate were likewise tested in an open grassland. Results showed that the dibble method of seeding giant ipil-ipil seeds was significantly better than the broadcast method in terms of germination, growth and survival of seedlings. The germination rate for the dibble method averaged 34.2% and for the broadcast method 12%. The dibble method gave higher cumulative height growth of seedlings at 16.9cm compared to the broadcast method which gave only 13.9cm. On seedling survival, the dibble method averaged 30.7%, whereas the broadcast method averaged only 7.4% and; there was no significant difference between the seeding rates used in terms of germination, growth and survival.

64.

Halena, C.

1988. Performance of *Acacia mangium* Willd. and *Leucaena leucocephala* Lam de Wit at Niah Forest Reserve, Sarawak. Nitrogen-Fixing Tree Research Report No.6.

Language : -
Key Words : species trial, site rehabilitation, erosion control, biomass
Executing Agency : FDSar
Funding Agency : FDSar
Status : CP
Species : *Acacia mangium*, *Leucaena leucocephala*
Sites : Sarawak, Malaysia
Year Started : -
Year Completed : -
Notes : -

65.

Halos, Saturnina C.

1981. Seed bank establishment. Terminal Report. Forest Research Institute, College, Laguna, Philippines.

Language : English

Key Words : -
Executing Agency : FORI
Funding Agency : PCARRD-IBRD, FO
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : 1981
Notes : This report describes the construction of a seed storage and preliminary testing facility for ipil-ipil. The seed storage facility was conveniently placed to store ipil-ipil seeds. The temperature of the room could be maintained by the dehumidifier/temperature control unit installed working continuously. A functional seed storage for *Leucaena* was established at the FORI Central Office. This facility is reinforced by the FORI Genetics Laboratory where seed germination testing were made.

66.
Hasanbahri, Soewarno

1984. Kompetisi pada pertumbuhan anakan tanaman *Leucaena leucocephala* (Lam.) de Wit *Acacia mangium* Willd. Silviculture Notes, No. 11-IX.

Language : Indonesian
Key Words : competition
Executing Agency : FFUGM
Funding Agency : FFUGM
Status : CP
Species : *Leucaena leucocephala*, *Acacia mangium*
Sites : Indonesia
Year Started : 1984
Year Completed : 1984
Notes : -

67.
Hendromono, Wiratmoko Sukotjo and Supriyanto

1985. Usaha meningkatkan pertumbuhan bibit *Leucaena leucocephala* (Lam.) de Wit pada tanah-tanah masam dengan pengapuran dan inokulasi Rhizobium. Pusat Penel. dan Pengemb. Hutan, No. 464.

Language : Indonesian
Key Words : liming, rhizobium inoculation
Executing Agency : BIOTROP
Funding Agency : BIOTROP
Status : CP
Species : *Leucaena leucocephala*
Sites : Indonesia
Year Started : 1984
Year Completed : 1985
Notes : -

68.
Hendronomo

1984. Pengaruh pengapuran dan inokulasi rhizobium terhadap pertumbuhan *Leucaena leucocephala*. Bul. Penelitian Hutan.

Language : Indonesian
Key Words : liming, rhizobium inoculation
Executing Agency : FR
Funding Agency : FR
Status : CP
Species : *Leucaena leucocephala*
Sites : Indonesia
Year Started : 1984
Year Completed : 1984
Notes : -

69.
Holzheimer, Michael Josef and Gerhard Voigtlander

Leucaena leucocephala in the humid tropics. Plant Research and Development, Vol. 29.

Language : English
Key Words : optimum yield, fertilization trials, pH
Executing Agency : GTZ
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Indonesia
Year Started : -
Year Completed : -
Notes : -

70.

Hoque, Md. Fazlul

Effect of cutting height of ipil-ipil planted on the boundary of crop field on the biomass production and crop performance.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Leucaena leucocephala*
 Sites : Bagherpara, Jessore, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

71.

Hu, T. W., W. E. Cheng and T. A. Shen

1983. Growth of the seedlings of four leguminous tree species in relation to soil pit in a pot test. Nitrogen Fixing Tree Research Reports No. 1.

Language : -
 Key Words : tolerance testing, acidity tolerance, growth
 Executing Agency : FDM
 Funding Agency : FDM
 Status : CP
 Species : *Acacia auriculiformis*, *Calliandra calothyrsus*, *Leucaena leucocephala*
 Sites : Malaysia
 Year Started : -
 Year Completed : -
 Notes : -

72.

Islam, M. B., M. B. Hossain and M. A. Mannaf

Study on the performance of different plant species for fodder and fuel in the homestead area of Tista Flood Plain.

Language : -
 Key Words : -

Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Sesbania sesban*, *Leucaena leucocephala*, *Dalbergia sissoo*
 Sites : F.S.R. site, Janokinathpur, Rangpur, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

73.

Islam, Q. N., Z. Uddin, M. Tarafder and S. A. Islam

Fuelwood plantation research of some indigenous and exotic species.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*, *A. nilotica*, *Dalbergia sissoo*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*
 Sites : Chittagong, Sylhet, Tangail and Dinajpur, Bangladesh
 Year Started : 1986
 Year Completed : 1991
 Notes : -

74.

Jalong, Philip Ngan

1986. Agroforestry in Sarawak. Ninth Malaysian Forestry Conference. Kuching, Sarawak, Malaysia.

Language : -
 Key Words : -
 Executing Agency : FDSar
 Funding Agency : FDSar
 Status : CP
 Species : *Acacia mangium*, *Gliricidia sepium*, *Leucaena leucocephala*

Sites : Sarawak, Malaysia
 Year Started : 1985
 Year Completed : -
 Notes : -

75.

Jamroenprucksas, Monthon and Chana
 Phiewluang

1986. Determination of equation for
 estimating production of some forest tree
 species. Silvicultural Research Bulletin.
 Royal Forest Department. 1:250-286.

Language : Thai
 Key Words : equation, production,
 yield table
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Casuarina junghuhniana*,
Eucalyptus camaldulensis,
Leucaena leucocephala
 Sites : Amphoe Muang,
 Changwat Saraburi,
 Thailand
 Year Started : 1984
 Year Completed : 1984
 Notes : -

76.

Jiraungkornkul, Arunee

1987. Natural durability of some fast-growing
 timbers to the attack of brown rot fungi.
 Proceedings of the Forestry Conference,
 Royal Forest Department. Forest Product
 Section. 93-108.

Language : Thai
 Key Words : durability, fungi
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Eucalyptus camaldulensis,
Melia azedarach
 Sites : Thailand
 Year Started : 1987
 Year Completed : 1987

Notes : Fungi: *Gloeophyllum*
sepiarium, *G. subferrugineum*, *Favolus* spp.,
Trametes cervino-gilvus, *Haploporous*
jubarskyi, *Fomitopsis pinicola*, and
Schizophyllum commune.

77.

Jirayut, Tawat

1987. The study of wood-cement bonding by
 stick test method. Thai Journal of Forestry
 6(1):51-56.

Language : English
 Key Words : wood-cement bonding,
 stick method
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Melia azedarach
 Sites : Amphoe Lan Sak,
 Changwat Uthai Thani,
 Thailand (800m)
 Year Started : 1986
 Year Completed : 1986
 Notes : The study dealt with
 wood-cement bonding with Diamond-brand
 Portland cement, which was available on the
 domestic market. Based on the results, the
 method provided a quick sorting of the
 suitable species for products.

78.

Jirayut, Tawat and Chaiyaporn Ounjittichai

1984. Wood-cement bonding by stick test
 method. Proceedings of the Forestry
 Conference. Royal Forest Department.
 2:90-96.

Language : Thai
 Key Words : wood-cement bonding,
 stick test method
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*,
Leucaena leucocephala
 Sites : Thailand
 Year Started : 1984
 Year Completed : 1984

Notes : -

79.

Kar, N. K. and M. Z. Abedin

Performance of different MPTS on the crop field boundaries of Barind Area.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Sesbania sesban*,
Leucaena leucocephala,
Acacia nilotica,
Eucalyptus camaldulensis,
Dalbergia sissoo,
A. auriculiformis,
Albizia procera
 Sites : F.S.R. site, Saroil,
 Barind, Rajshahi,
 Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

80.

Kar, N. K. and M. Z. Abedin

Testing homestead agroforestry module for fuel and fodder in Barind Area.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Leucaena leucocephala*,
Albizia procera,
Melia azadirach,
Dalbergia sissoo
 Sites : F.S.R. site, Saroil,
 Barind, Rajshahi,
 Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

81.

Karim, Md. Rezaul

Crop performance under various spatial arrangements of trees in the High Ganges Flood Plain.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Acacia nilotica*,
Eucalyptus camaldulensis,
Leucaena leucocephala
 Sites : A.R.S., Pubna, Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

82.

Khan, Azis, Mashar Chamim, Sudaryanto and Bedyaman Tambunan

1984. Kemungkinan pengusahaan lamtoro gung (*Leucaena leucocephala* Lam de Wit) di cibadak sukabumi dan sekitarnya guna pemenuhan bahan partikel PPKRM. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : cultivation possibilities
 Executing Agency : FFIPB
 Funding Agency : -
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : Indonesia
 Year Started : 1984
 Year Completed : 1984
 Notes : -

83.

Khan, M. R.

Introduction of different quick growing multi-purpose tree species in the homesteads.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : BARC/OFRD
 Status : OR

Species : *Leucaena leucocephala*,
Albizia procera,
Eucalyptus
camaldulensis
Sites : F.S.R. site, Palima,
Tangail, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

84.
Khemkhaeng, Charat, Kittipot
Som-arayapong and Witsanu Wongput

1984. Apisilviculture-bee keeping in forest plantation theory and practice. Proceedings of the Forestry Conference. Royal Forest Department. 1:11-25.

Language : Thai
Key Words : apisilviculture
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Eucalyptus
camaldulensis,
Acacia auriculiformis
Sites : Amphoe Wang Thong,
Changwat Phitsanulok
(400m)
Year Started : 1984
Year Completed : 1984
Notes : -

85.
Khemkhang, Charat, Kittipot
Som-arayapong and Witsanu Wongput

1984. Multi-purpose agri-silviculture. Proceedings of the Forestry Conference. Royal Forest Department. 1:26-32.

Language : Thai
Key Words : agroforestry, growth
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *A. indica*,
Acacia auriculiformis,
Eucalyptus
camaldulensis,

Leucaena leucocephala
Sites : Amphoe Wang Thong,
Changwat Phitsanulok,
Thailand (420m)
Year Started: 1982
Year Completed : 1988
Notes : *T. grandis* planted in spacing of 8*8 was treated as a principal specie mixed with other forest trees planted in spacing of 2*4m aiming to get natural pruning of teak.

86.
Khemkhang, Charat, Waraporn Siriprasert
and Suwannee Pattaraprutpanit

1982. Preliminary observation on the tree planting in rice field. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 2.

Language : Thai
Key Words : rice field, agroforestry, growth
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Phrom Phiram,
Changwat Phitsanulok,
Thailand (450m)
Year Started : 1982
Year Completed : 1982
Notes : *L. leucocephala* could grow well in paddy field of low humic gley soil. Trees were also resistant to drought and insects.

87.
Klatgrajai, Preecha

1988. Charcoal production by mound kilns. Thai Journal of Forestry 7(9):1-17.

Language : Thai
Key Words : charcoal production, kiln
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Changwat Phetchaburi,

Thailand (40-45m)
Year Started : 1987
Year Completed : 1987
Notes : Main findings: Charcoal yield 30.8%, charcoal density 0.33 g/cc, heat of combustion 7651 cal/g, volatile matter content 15.3%, fixed carbon content 82.3%, ash content 2.4%, time to boil 14 mins, and heat utilization 33.9%.

88.

Koffa, Samuel N.

1983. Amino acid analysis in the determination of nutrient (NPK) deficiency in ipil-ipil (*Leucaena Leucocephala* (Lam.) de Wit). Doctor of Philosophy Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : culture solution, metabolic derangements, morphological abnormalities, standard amino acids, substitution effect, simulated deficit
Executing Agency : PhD Thesis
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Stunted *Leucaena* seedlings with pole-green leaflets, prematurely dropped chlorotic leaflets, and marginal chloroses and neurotic leaflets with wrinkled, corrugated and crinkled veins were visual symptoms of nitrogen, phosphorus and potassium deficiency, respectively. To explain these symptoms and the metabolic derangements, a quantitative analysis of some 17 standard amino acids and ammonia with an amino acid analyzer, through the Technicon Sequential Multi Sample System (TSMS) was conducted. Tryptophan was unaffected in potassium-deficient leaflets, methionine was undetected in the control and nitrogen deficient seedlings, while glycine and alanine were not affected when nitrogen was deficient in the stem. In

deficient seedlings, there changes in the concentration (Percentage-wise) of amino acids relative to the levels in the control. Although these changes were variable with respect to the parts (leaflets, stem, root) sampled and the particular nutrient element that was deficient, they were sufficient to make analysis of amino acids and additional method for the diagnosis of mineral deficiencies in this plant. Each indicator amino acid is followed by its percent of increase or decrease.

89.

Komastit, Nit, Pisal Wasuwanich and Sudarath Ngamkhajornwiwat

1988. Effects of fertilizer application, manual weeding and spacing on seed production of *Leucaena leucocephala*. Thai Jour. of For. 7(1):18-27.

Language : Thai
Key Words : fertilization, weeding, spacing, seed production
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Pak Chang, Changwat Nakhon Ratchasima, Thailand (520 m)

Year Started : 1987
Year Completed : 1987
Notes : Significant differences in response to spacing was observed in *Panicum maximum* (1007.1kg/ha) followed by *Brachiaria ruziziensis* (915.4 kg/ha), *P. maximum* c.v. hamil (809.7 kg/ha) and *P. maximum* var. *tricholumes* (408.1 kg/ha).

90.

Kwaengsopha, Somyos

1980. The effect of dry heat treatment on hard-seedness of *Leucaena Leucocephala* c.v. peru and c.v. cunningham. Report submitted for AG 750 Research Project. Department of Agriculture, University of Queensland, Australia.

Language : English
Key Words : hardseed, heat treatment
Executing Agency : -
Funding Agency : AG750
Status : CP
Species : *Leucaena leucocephala*
Sites : Australia
Year Started : 1980
Year Completed : 1980
Notes : Seed viability was markedly reduced when the temperature and durations of exposure were increased above 80C. However, germination of the old seed was reduced more by high temperature treatments than the new seed.

91.
Lajari-Mari, E. A.

1985. Ipil-ipil leaves for reduction of formaldehyde emission. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : foliage, formaldehyde emission, leaf powder, emission value
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1982
Year Completed : 1985
Notes : Leaf powder from giant ipil-ipil was found to have significantly reduced the amount of formaldehyde emitted from particleboards. This study was an attempt to put on trial the potential of giant ipil-ipil foliage as formaldehyde scavenger. To control formaldehyde emission from particleboard, dried leaves were ground in a Wiley Mill (and screened) with a No. 32 mesh screen. The moisture content of the leaf powder was about 5%. The leaf powder was mixed with the particles sprayed with the glue mix at 15% and 30% powder concentration levels based on glue solids. Emission values indicated a reduction ranging from 30 to 45% by the addition of

leaf powder at 15 to 30% proportion. The values obtained could pass the JIS 24-hr standard limit. However, recent amendments to existing regulations indicated a 0.30 ug/ml limit for particleboard.

92.
Lajari-Mari, E. A., N. C. Generalla, V. C. Mallari and A. A. Pablo

1983. Research and development on the utilization of wood and other fibrous materials for particleboard: Giant Ipil-ipil. FPRDI Annual report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : unbarked, turbo flaker, hot pressing, mat forming
Executing Agency : FPRDI
Funding Agency : NSDB-FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1977
Year Completed : 1983
Notes : This report presents a comparative analysis of particleboards from giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) made in the laboratory and in the pilot plant were found comparable with the laboratory boards. Particleboards made in the pilot plant from unbarked giant ipil-ipil materials and urea-formaldehyde adhesive gave an average modulus of rupture of 14.387 megapascal (mPA); internal bond of 430.619 kilopascal (kPA); and a thickness swelling of 11.3% at a board density of 650 kg/m³, resin content of 9% and wax content of 2.2%. The properties of the boards passed the standard values for particleboard intended for housing/furniture materials as specified by PHILSA 106-1975 (Revised 1980).

93.
Lasmarias, Victoria T.

1980. Construction of volume-tables for giant ipil-ipil. PCARRD-IBRD Sub-Project I.

Terminal Report. Los Banos, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FORI
Funding Agency : PCARRD-IBRD
Status : CU
Species : *Leucaena leucocephala*
Sites : Los Banos, Laguna, Philippines
Year Started : 1980
Year Completed : 1980
Notes : The volume equations were derived for giant ipil-ipil (*Leucaena leucocephala*). One gives the volume and the other branch volume up to a minimum top diameter inside bark of 3cm. The tree volume in cubic meters can be predicted based on measurement of diameter breast height (DBH) and merchantable height in cm. and m., respectively. On the other hand, branch volume can be estimated based on measurements of basal diameter and merchantable length of the branches.

94.

Laxamana, Melencio G.

1987. Drying characteristics of giant ipil-ipil lumber and poles. FPRDI Journal 16(1):27-44.

Language : English
Key Words : dehumidification drying, kiln drying, fiber saturation point, forced air drying (FAD), poles, lumber
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : The drying characteristics of K-28 and Peruvian ipil-ipil sawn lumber and poles were studied using various methods and exposure periods. Results showed that the length of exposure influence air drying rate and final moisture

content (MC), with the former being less during the wet than the dry season. Pre-drying by either air drying (AD) or forced air drying (FAD) shortened kiln drying (KD) time to one half or one day for 25 mm thick lumber and 3 1/2 days for 50 mm thick ones. Steaming the lumber and pole specimens for two hours did not accelerate drying time. The use of combined drying methods (AD/FAD and KD) resulted in better quality of dried materials, than when drying was done straight from green using the KD method. Five to eight weeks was required for poles to attain the fiber saturation point (FSP) based on 25 mm thick borings from the surface. Drying was attained faster with 4-hour than with 2-hour steaming period. Defects during KD were minimized by careful and slow drying or by a combination of AD/FAD and KD.

95.

Laxamana, Nieva B.

Important village-user and industrial user-oriented fuelwood species, native ipil-ipil, coconut frond (palapa), rice hull and Benguet pine.

Language : English
Key Words : -
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1986
Year Completed : 1986
Notes : -

96.

Laxamana, Nieva B.

1983. Specific gravity and calorific value of giant ipil-ipil wood over range of age and varieties. PCARRD-IBRD 51. Terminal Report. College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : ERDB/FPRDI

Funding Agency : IBRD
Status : CU
Species : *Leucaena leucocephala*
Sites : FPRDI, College, Laguna, Philippines
Year Started : 1980
Year Completed : 1983
Notes : Eight varieties of giant ipil-ipil wood of different ages and varieties from different sources were studied for different fuelwood properties. No significant correlation between heating value per unit bone dry weight of wood and its specific gravity. (Data Analysis of 1, 2, 3, 4 & 5 tables). Heating value is very much affected by wood products. A positive correlation between the extractives and heating value was highly significant. Highly-volatile matter content variety easy to ignite, burns very rapidly. Low volatile matter content variety - difficult to ignite, burns slowly. High ash content - lower heating content.

97.

Laxamana, Nieva, Dionglay and Ortiz

1986. Production of organic acids, alcoholic and phenolic compounds from destructive distillation of wood. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : organic acids, destructive distillation, phenolic compounds
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1985
Year Completed : 1986
Notes : Four plantation species: giant ipil-ipil, kaatoan bangkal, yemane and *Albizia falcataria* were treated with 5% and 10% sodium carbonate and 5% and 10% phosphoric acid. Sixteen distillation runs on the treated samples and four distillation runs on untreated sample were conducted in a wood distillation retort at a temperature of 315 degree C for a period of eight hours.

Analyses showed that moisture and control of distillation conditions do not affect the yield of tar and charcoal in the untreated samples. In the case of treated samples, as little as 2.7% phosphoric acid reduced soluble tar to about 1/10 of normal value and destroyed the settled tar completely. The distillation of wood in the presence of phosphoric acids as catalyzer showed a pronounced tendency to give more wood alcohol than that with sodium carbonate as a catalyzer.

98.

Luangjame, Jesada and Ladda Bunbhakdee

1984. Salt tolerance of selected tree species. Proceedings of the Forestry Conference, Royal Forest Department, 2:55-58.

Language : Thai
Key Words : salt tolerance
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Leucaena leucocephala*, *Azadirachta indica*
Sites : Amphoe Muang, Changwat Khon Kaen, Thailand (174m)
Year Started : 1984
Year Completed : 1984
Notes : This greenhouse study revealed that *E. camaldulensis* was ranked the top in salt tolerance, but NaCl concentration should not be greater than 2.0%.

99.

Luna, Aleli M.

1981. Collection treatment and storage of *Leucaena* seeds. Terminal Report. FORI, College, Laguna, Philippines.

Language : English
Key Words : seed treatments, seed storage
Executing Agency : FORI
Funding Agency : EB-IBRD

Status : CU
Species : *Leucaena* species
Sites : Bulboc, Batangas City;
 Daet, Camarines Norte;
 Diadi, Nueva Vizcaya,
 Philippines
Year Started : 1981
Year Completed : 1981
Notes : Seeds of different strains
 of giant ipil-ipil had been collected from
 selected mother trees and color of the pods
 during seed collection was considered, seeds
 were air dried for at least three days and
 the amount of moisture present in the seeds
 prior to storage were determined, by oven
 drying seed samples at 105 degree C for
 24 hours. The effect of container, (CHECK)
 and moisture content on seed viability during
 the period of storage had been investigated.
 It was found that bottle and plastic bags
 provided tightly sealed during storage
 prolonged seed viability. An average
 germination percentage ranging from 86.04
 to 93.64 had been obtained using bottle and
 plastic bag as containers. The effect of
 different temperature during storage shows
 that storage of 28 degree C and 70 degree C
 gave an average germination percentage
 of 88 to 94 during eight months of storage.
 Seeds stored at different moisture content
 did not exhibit a decrease in loss of viability
 during storage, average germination of 86.14
 to 93.14 percent and been obtained during
 the period of storage. It was observed that
 high quality seeds can be obtained when
 seeds are collected from pods that are not
 yet over mature.

100.

**Majumder, S. H. M. H. and M. H.
 Chowdhury**

1987. Studies on the physico-chemical
 properties of *Leucaena leucocephala* seed oil
 and analysis of its seed cake. Chittagong
 University Studies, Part II, 11(1&2):93-99.

Language : English
Key Words : -
Executing Agency : BFRI
Funding Agency : BFRI
Status : CP
Species : *Leucaena leucocephala*

Sites : Bangladesh
Year Started : 1986
Year Completed : 1986
Notes : This is a laboratory
 work so there is no need to mention site.

101.

Maiab, Stanley C.

1980. Field performance of roll
 container-growth giant ipil-ipil (*Leucaena
 leucocephala* (Lam.) de Wit) seedlings
 outplanted in open grassland. Master of
 Science Thesis. University of the Philippines
 at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : roll container, potting
 media, bare-root, plastic
 bag-grown, ipil-ipil
Executing Agency : MS Thesis
Funding Agency : MMSU
Status : CU
Species : *Leucaena leucocephala*
Sites : Batac, Ilocos Norte,
 Philippines
Year Started : 1977
Year Completed : 1979
Notes : Nursery and field
 experiments were conducted to determine
 the potential of roll container in raising
Leucaena leucocephala seedlings at various
 ages, levels of plant density/spacing and
 potting media. The K8 variety was used as
 test plant and the seedlings were grown for
 four, eight, twelve and sixteen weeks.
 Levels of plant density/spacing imposed were
 20-24 spaced at 4 cm and 45 seedlings per
 container spaced at 2 cm. The different
 potting media used were ordinary garden soil
 humus, ordinary garden soil + moss mixture
 and humus + moss mixture. The seeds used
 in the experiment were inoculated with
 rhizobium bacteria. The field experiments
 were conducted to compare roll container
 grown seedlings with plastic bag-grown
 seedlings and bareroot planting stock in
 terms of survival, growth and cost with
 weeding operations included as one of the
 treatments. Survival of seedlings in the
 nursery were generally higher among plants
 in the 20-24 and 25-30 plants/container and

raised for 8, 12 and 16 weeks. However, the seedlings grown in ordinary garden soil and its mixture of humus + moss. Height growth of seedlings significantly increased with older seedlings at closer spacing. On the other hand, diameter growth increased with older seedlings at wider spacing. Top-root ratio decreased with older seedlings but effects of plant density and potting media on shoot and root developments were similar in all treatments. Survival of outplanted seedlings was not improved by weeding operations.

102.

Manaf, Abdul Rashid

1979. Effects of vesicular-arbuscular mycorrhizae and phosphate on the growth of *Leucaena leucocephala*. Bachelor of Science in Forestry Thesis, Universiti Pertanian Malaysia.

Language : English
Key Words : endomycorrhizae, phosphate levels
Executing Agency : UPM
Funding Agency : UPM
Status : CU
Species : *Leucaena leucocephala*
Sites : Serdang, Malaysia
Year Started : -
Year Completed : 1979
Notes : -

103.

Manik, Sri Ulina, Yahya Fakuara and Soedarjadi

1986. Pengaruh jenis medium dengan penanbahan abu serasah daun dipterocarpaceae terhadap pertumbuhan semai *Leucaena leucocephala* (Lam.) de Wit. B.Sc. Thesis, Faculty of Forestry, IPB.

Language : Indonesian
Key Words : types of medium, dipterocarp leaf litter ash
Executing Agency : FFIPB
Funding Agency : -
Status : CU
Species : *Leucaena leucocephala*

Sites : Indonesia
Year Started : 1986
Year Completed : 1986
Notes : -

104.

Mendoza, Valerio B.

1977. Adaptability of six tree species to cogonal areas. Philippine Forest Research Journal 2(4):225-234.

Language : English
Key Words : adaptability, cogon, box experiment, diameter growth, reforestation species, growth inhibition, nutrient uptake, allelochemicals

Executing Agency : MS Thesis
Funding Agency : PCARR
Status : CP
Species : *Leucaena leucocephala*, *Eucalyptus camaldulensis*

Sites : College, Laguna, Philippines

Year Started : 1976
Year Completed : 1976
Notes : Investigations into the adaptability of seedlings of ipil-ipil (*Leucaena leucocephala* L. Merrill), Agoha (*Casuarina equisetifolia* Forst.), River red gum (*Eucalyptus camaldulensis* Dehnh.), Benguet Pine (*Pinus kesiya* Royle ex Gordon), Binayoyo (*Antidesma frutesce* Jack) and Alibangbang (*Pillis stigma malabaricum* Roxb. Benth) to a grassland ecosystem were conducted. Three experiments were set-up: box, leaching and field experiments. This paper reports about the box experiment which dealt with the growth and development of 6 tree species in the presence or absence of cogon. Performance of the seedling in all experiments was evaluated by the growth in height, diameter, dry matter production and survival. Parameters such as microbial populations, soil and air temperature, Light intensity, pH and tissue analysis were determined. Height and diameter growth of seedlings grown in boxes, in the absence of cogon, were generally greater than the height and diameter growth of seedlings grown in

the presence of cogen. There were no significant differences in survival among the seedlings raised.

105.

Mendoza, Valerie B. and Jose A. Semana

1977. Giant ipil-ipil (*Leucaena leucocephala*): cultural practices and growth rates in some Mindanao plantations. Sylvatrop Philippine Forest Research Journal 2(1):40-44.

Language : English
Key Words : ipil-ipil, cultural practices, growth rates
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Davao del Norte and Misamis Oriental, Philippines

Year Started : 1976

Year Completed : 1977

Notes : The Leucaena plantations of Montemayor and Mabuhay Vinyl Corporation (MVC) were visited. Montemayor prefers direct seeding, MVC outplanting. Growth rates were from 57 meters per/ha per/yr for 14-month old stems and up to 123 meters for 18-month old stems at the Montemayor plantations. The stem at MVC were too small to permit growth rate determinations. Nevertheless, the growth data obtained provide adequate proof that giant ipil-ipil is indeed fast-growing. The plantations produce seeds, banana props and charcoal for the manufacture of calcium carbide.

106.

Mindawati, Nina

1986. Pengaruh cara pengolahan Alang-alang (*Imperata cylindrica*) terhadap pertumbuhan lamtoro gung (*Leucaena leucocephala*). Buletin Penel. Hutan, No. 472.

Language : Indonesian
Key Words : site preparation
Executing Agency : FRI

Funding Agency : FRI
Status : CP
Species : *Leucaena leucocephala*, *Imperata cylindrica*
Sites : Indonesia
Year Started : 1985
Year Completed : 1985
Notes : -

107.

Mohiuddin, Md. and Md. Shafiqul Aktar

The performance of ipil-ipil as a source of fuel and fodder in the homestead area.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Leucaena leucocephala*
Sites : FSR site, Jessore, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

108.

Monoy, Robert E.

1981. Yield prediction model for giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) plantations. Master of Science Thesis. University of the Philippines at Los Baños, College, Laguna, Philippines.

Language : English
Key Words : yield prediction model for giant ipil-ipil
Executing Agency : MS Thesis
Funding Agency : CMU
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : A satisfactory yield prediction model for giant ipil-ipil was developed from data which were collected from temporary plots. The yield prediction model is made up of a site index equation

and a yield prediction equation. Site index was based at a stand age of six years. The results show that yield can be adequately explained by stand age, site index and spacing. The results also indicated that at lower site quality, wider spacing tends to decrease yield while at higher site quality, wider spacing tends to increase yield. This findings generally conform with the usual effect of the interaction of number of trees (spacing) and site quality on stand yield.

109.

Murniati and Chairil Anwar Siregar

1989. Pengaruh pemupukan TSP terhadap ubikayu (*Manihot esculenta* Crants) yang di tumpangsarikan dengan lamtorogung (*Leucaena leucocephala*). Bul. Pen. Hutan 506:1-10.

Language : Indonesian
 Key Words : *Leucaena leucocephala*,
Manihot esculenta
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Leucaena leucocephala*,
Manihot esculenta
 Sites : Indonesia
 Year Started : 1986
 Year Completed : 1987
 Notes : -

110.

Ngah, Mohamad Lokmal B. HJ.

1987. Selection of fuelwood crops. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987, 15pp.

Language : English
 Key Words : fuelwood plantation,
 selection criteria
 Executing Agency : FRIM
 Funding Agency : FRIM
 Status : CP
 Species : *Acacia mangium*,
A. auriculiformis,
Leucaena leucocephala,
Casuarina equisetifolia
 Sites : Kepong, Malaysia

Year Started : 1987
 Year Completed : -
 Notes : -

111.

Ngah, Mohd. Lakmal HJ. Ngah, and Ab. Rasip Ab. Ghani

1989. The multi-purpose tree species (MPTS) project at Mata Ayer Forest Reserve, Perlis. Regular Symposium on recent Development in Tree Plantation of Humid/Sub-Humid Tropics of Asia, UPM, Malaysia, 1989.

Language : -
 Key Words : survival rates, species
 performance
 Executing Agency : FRIM
 Funding Agency : F/FRED
 Status : CU
 Species : *Acacia mangium*,
A. auriculiformis,
Leucaena diversifolia
 Sites : Perlis, Malaysia
 Year Started : 1988
 Year Completed : -
 Notes : -

112.

Nunez, F. E. and P. B. Magadan

1986. Cultural requirements of *Leucaena leucocephala* intended for grazing. CMU Journal of Agriculture, Food and Nutrition 8(1):3-17.

Language : English
 Key Words: herbage yield, ipil-ipil,
 defoliation, adtuyon clay
 Executing Agency : Thesis
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Musuan, Bukidnon,
 Philippines
 Year Started : 1983
 Year Completed : 1984
 Notes : The objective of the
 study is to determine the most productive
 treatment combination(s) using fertilizer,
 height of cut, frequency of cutting and

distance of planting as factors. Results showed that fresh herbage yield was increased due to application of 50 kilos phosphatic fertilizer, shorter cutting intervals, shorter height of cut and closer distance of planting. The highest yield was obtained from the treatment combination 50-30, 50-20 (fertilizer height of cut frequency of cutting distance of planting) of 11.78 kg per 7.5 sq. m for one hundred days equivalent to 57.3 metric tons per hectare a year. The lowest yield of 2.8 kg or 3.73 metric tons per hectare per year, the other hand, was obtained from treatment combination 0-60-50-40. Treatment mean differences. Statistically, fertilizer was different at 5% and distance highly significant ($P = 0.01$).

113.

Pablo, Arturo A.

1987. Development of cement-bonded particleboards from industrial tree plantation species, lesser-known species and mixtures of various species including wood wastes. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : wood wastes, cement-bonded, particleboards, MOR (modulus of rupture)
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Leucaena leucocephala*, *Gmelina arborea*, *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : 1985
Year Completed : 1990
Notes : Five species namely: mahogany, giant ipil-ipil, kaatoan bangkal, yemane and moluccan sau were made into 20-mm thick, 250-mm x 250-mm, 1000 kg/m³ density bonded particleboard. Cement-woodratio 7:30 was used at various chemical accelerators, magnesiumchloride, calcium chloride, aluminum sulfate, aluminum

hydroxide, aluminum chloride and calcium chloride. High values of MOR 2.31 to 3.79 MPa were obtained from mahogany, kaatoan bangkal and giant ipil-ipil with magnesium chloride as accelerator. Moluccan sau had a higher value of 5.09 MPa in aluminum sulfate. Yemane has the lowest strength value of only .098 MPa in calcium chloride accelerator.

114.

Pablo, Arturo A., Macias and Loida C. Mabilangan

1988. Development of wood-chip-cement board from industrial tree plantation species, lesser known species and mixtures of wood species of different densities. FPRDI Operations Plan. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : wood chip, breaking load, woodwool, board density, cement board
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : OR
Species : *Leucaena leucocephala*, *Gmelina arborea*
Sites : College, Laguna, Philippines
Year Started : 1987
Year Completed : 1992
Notes : Tests on wood cement boards were conducted on small and large-sized boards at 2 and 3 cm thickness, at 55:45 wood-cement ratio in 400 kg/m³ board density. Boards showed breaking load of 2079-3236 Newton (n); internal bond strength of 100-200 kpa; resistance to nail-head pull through 1100-1900 N; 40-50% water absorption and thickness swelling, 2.5-4.0%. Trial production of woodwool cement boards were made using giant ipil-ipil in various board thicknesses; 10, 12, 15, 30, 50 and 80-mm in 6 levels board density: 100, 200, 300, 400, 500 and 600 kg/m³.

115.

Pablo, Arturo A., Necitas C. Generalla and Luisa M. Canadido

1988. Studies on the manufacture of phenol-formaldehyde bonded particleboard using Giant ipil-ipil. Terminal report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : wax emulsion, phenol-formaldehyde, homogenous flakeboards, thickness swelling
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : -
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Laboratory and pilot-

scale studies were conducted on the manufacture of phenol-formaldehyde bonded particleboards using giant ipil-ipil. Eight millimeter thick homogenous particleboards, 45x50 cm, were made at 5 surface resin content levels (4, 5, 6, 7 and 8%), 3 core resin content levels (3, 4 and 5%), 3 board density levels (600, 650 and 700 kg/cm³) and 2 wax levels (0 and 2%). Similarly, 12.7mm thick particleboards were made at three surface resin content levels, namely 6, 7 and 8. Tests were conducted to determine the effect of surface resin content on the boards modulus of rupture and thickness swelling, of core resin content, on internal strength and of wax emulsion on thickness swelling. Results showed that resin content had significant effects on the modulus of rupture of 8-mm thick boards and on the thickness swelling of 12.7-mm boards. Internal bond strength was also affected by resin content. Wax emulsion reduced the boards' modulus of rupture and had no significant effect on thickness swelling. For 8-mm thick homogenous boards, the optimum PF resin content were found to be 5% and 3% for the surface and core layers, respectively, 6% and 4% for 12.7-mm thick boards. A total of 120 particleboards of 8-mm thickness were made in the pilot plant, 45 boards of 12.7-mm thickness. Board properties passed the PHILSA standards.

116.

Pablo, Arturo C., Necitas C. Generalla and Orlando R. Pulido

1988. Studies on the manufacture of thick particleboards using giant ipil-ipil particles. FPRDI Annual Report. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : particleboard, urea-formaldehyde, modulus of rupture, internal bond strength

Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -

Year Completed : -

Notes : Three-layer urea-formaldehyde-bonded particleboards of 20, 25 and 32 mm thickness were manufactured using giant ipil-ipil at 4 levels of percentage of surface material: 20, 25, 30 and 35% and at 3 levels of board densities: 550, 600 and 650 kg/m³. Board properties such as modulus of rupture, internal bond, screw-holding strength and thickness swelling, were tested following PHILSA Standards. Results of tests showed that the optimum percentage of surface material were found to be 20% for 32-mm thick particleboards; 25% for 25-mm boards; and 30% for 20-mm boards. The properties of 32-mm thick boards at 550 kg/m³ and 25-mm boards at 600 kg/m³ board density are within PHILSA Type 10 (MPA) standards, while those of 20-mm boards at 650 kg/m³ density satisfy PHILSA Type 15 standards. The average pressing time were 8, 8.5 and 10.5 minutes for 20-mm, 25-mm and 32-mm thick boards, respectively.

117.

Pamplena, B. S., Y. S. Tavita, A. A. Silva and N. G. Ambagan

1988. Ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) seed gum as dry-strengthening additive to paper. Technical Reports. FPRDI, College, Laguna,

Philippines.

Language : English
Key Words : guar gum, gum additives, lowry technique, tensile strength, paper chromatography

Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Three varieties of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) seeds (giant K28, hybrid, Cunningham and native Copil No. 2) were chemically investigated to determine the potential of the seeds as raw materials for the production of gum additive for paper. The proximate composition and the water-soluble components of the seeds were analyzed. The ethanol-precipitated gum from the crude aqueous extract of the seeds were characterized by its infra-red spectrum, component sugars and viscosity. Two forms of gum additive for paper, the extract and powder, were produced from the finely ground, whole seeds. Some properties of the additive were identified. The performance of the ipil-ipil seed gum as a dry strengthening chemical for paper was evaluated along with commercial guar gum (Amatex and Quartec), unmodified and modified starches (Panda and Cato 210) and control in varied pulp handsheets, experimental paper and commercial paper. Based on the oven-dry weight of the pulp, an addition of 0.5% aqueous crude gum extract of the giant ipil-ipil (K-28) seeds significantly increased the dry-tensile strength of pure sugarcane bagasse and lauan PEUPL Handsheets by 11% and 14%, respectively over the control. The effects were comparable to that of the commercial guar gum, Quartec, using the same concentration of 0.5%. The addition of 0.5% whole K-28 seed powder (gum powder), in aqueous suspension, on sugarcane bagasse pulp handsheets increased tensile by 3% and burst by 10%.

118.

Pamplona, Buena S.

1986. Some properties and use of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) seed gum. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : crude fiber, seed gum, crude protein, galactomannan

Executing Agency : MS Thesis
Funding Agency : NSTA
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : A chemical investigation on ipil-ipil seeds (K-28, Cunningham and Copil No. 2 samples) was conducted. The proximate chemical composition and the components of the aqueous extract, particularly the gum content of the seeds were analyzed. The gum was characterized by its infra-red spectrum, component sugars, viscosity and residual protein content. The ranges of chemical composition of the seeds were 6.52%-8.45% moisture, 3.28%-3.81% ash, 8.18%-10.16% crude fat, 8.25%-9.86% crude fiber, 31.02%-31.49% crude protein, 38.17%-40.77% nitrogen-free extract and 48.03%-49.02% total carbohydrates. On the average, the fat free samples contained 35% hot water solubles from which 14.9% gum was precipitated out by repeated treatment with ethanol. Total sugars (22.5%), proteins (19.2%) and tannin materials (0.3%) were detected in the aqueous extract samples. The infra-red spectra of the ipil-ipil gums were similar to that of the galactomannan isolated from lucerne, especially in the fingerprint region. Paper and high-pressure liquid chromatographic analysis showed the presence of mannose and galactose with the molar ratio of 1.3:1.0 (mannose and galactose). The isolated gum had an average of 2.1% residual protein impurity. The gum formed a viscous aqueous solution. A 1,000 ppm solution of the gum exhibited 2.29 cp

viscosity. An intrinsic viscosity of 7.7 dl/g was found in the gum sample.

119.

Pamplona, Buena S. and Yolanda Tavita

1985. Production of strengthening chemicals from ipil-ipil seeds.

Language : English
Key Words : mucilageous gum, commercial guar, burst strength, sugarcane bagasse, pulp handsheets
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : 1983

Year Completed : 1985

Notes : A mucilageous gum extract amounted to 66% of the dry and ground ipil-ipil seeds. Such extract was utilized as additive to pulp handsheets. The coarsely ground ipil-ipil seeds were soaked in ethanol, then subjected to repeated water extraction at 40 degrees C to isolate the mucilageous gum. The viscosity and the dry solid content were determined. Known concentrations of the extract were applied to the sugarcane bagasse pulp handsheets. Effects of the same concentration of commercial guar in the pulp handsheets were also tested for comparison. A 0.5% addition (based on the oven-dry weight of the pulp) each of the ipil-ipil extract and guar gum imparted 7.0% and 6.1% increase in burst strength over that of the control, which was similarly treated with resin size and alum size. Likewise, tensile, folding endurance, porosity and pick resistance of the sugarcane pulp handsheets increased. The ipil-ipil extract can be recommended as substitute for imported guar and locust bean gum. An ipil-ipil tree may produce 1-5 kgs. seeds/yr. With 2,500 trees/ha, seed yield would be about 2.5-12.5 MT/ha/yr. Based on 66% crude gum recovery from the dried and ground seeds, about 1.7-8.2 MT/ha/yr of gum might dry-strengthen some 360-1640 MT of

pulp for the manufacture of bag, wrapping, tissue and printing papers.

120.

Paneda, Dominic G.

1984. Performance of broilers as affected by different levels of cassava, cucharita and ipil-ipil leaf meal mixture as feed supplement. Undergraduate Thesis: DMMMSU-CAF. Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Inoman, Pozorrubio, Pangasinan, Philippines

Year Started : 1983

Year Completed : 1984

Notes : This study was conducted to determine the effect of the different levels of Cassava, Cucharita and Ipil-ipil leaf meal mixture as feed supplement for broilers and to determine what level of the mixture will give the best performance to broilers. A total of one hundred (100) day old chicks were used in the study. The treatment used were: 0 - pure commercial feeds (control), T1 - 5% cassava, cucharita and ipil-ipil leaf meal mixture plus 95% commercial feeds, T2 - 10% of cassava, cucharita and ipil-ipil leaf meal mixture plus 90% commercial feeds, T3 - 15% cassava, cucharita and ipil-ipil leaf meal mixture plus 80% commercial feeds. The feed rations were given to the birds from the third up to the sixth week which was the period of feeding trials. It was found that 5% level of cassava, cucharita and ipil-ipil leaf meal mixture gave the best performance to broilers.

121

Petmak, Pitaya and Somboon Bunyuen

1989. Proceedings of the Forestry Research Conference. Royal Forest Department. Silvicultural Section 2:217-223.

Language : Thai
Key Words : soil properties, yield crops
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala
Sites : King Amphoe Nam Kiang, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1985
Year Completed : 1988
Notes : -

122.

Petmark, Pitaya and Bopit Kietvuttinon

1984. The roles of agroforestry system on forest and rural development. Proceedings of the Forestry Conference, Royal Forest Department, 1:65-101.

Language : Thai
Key Words : agroforestry, firewood production, construction timber
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
Leucaena leucocephala
Sites : Amphoe Kanthararom, Changwat Si Sa Ket, Thailand (130m)
Year Started : 1978
Year Completed : 1984
Notes : Agroforestry system was carried out in order to evaluate growths and yields of various crop combinations planted in spacing 4*4m.

123.

Petonio, Leonor M.

1983. Effects of ipil-ipil meals as feed supplement at the different age levels of broilers. Undergraduate Thesis: DMMMSU-CAF. Rosario, La Union,

Philippines.

Language : English
Key Words : -
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Alipang, Rosario, La Union, Philippines
Year Started : 1982
Year Completed : 1983
Notes : This study was conducted to compare the feed consumption efficiency of broilers at different age levels supplemented with ipil-ipil leaf meal, to determine what age levels will yield the best result when feeds are mixed with ipil-ipil leaf meals, to find out the feed conservation efficiency of the birds when feeds are mixed with ipil-ipil leaf meal and to determine the cost benefit advantage of substituting four (4) percent of commercial feeds with ipil-ipil leaf meal. Results showed no significant differences in their total gain in weight and their final weight. Also observed that when feed were supplemented with ipil-ipil leaf meal the feed conversion efficiency increase. Substituting four percent (4%) commercial feeds with ipil-ipil leaf meal at 29 days gave the highest net returns per bird compared to other age levels and the birds that were fed with pure commercial feeds.

124.

Pinoñ, Agustin A.

1983. Production standard for harvesting ipil-ipil plantations. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : felling, debranching, harvesting system
Executing Agency : MS Thesis
Funding Agency : PCARRD
Status : CP
Species : *Leucaena leucocephala*
Sites : Los Banos, Laguna, Philippines
Year Started : 1980
Year Completed : 1980

Notes : Production standards for harvesting ipil-ipil plantations were developed for five work elements: felling, debranching, minor transport, loading, and unloading operations. There were 100 continuous-time study observations used to develop production standards for felling, 63 for debranching, 228 for minor transport and 70 observations for loading and unloading operations. Stepwise multiple regression was used to develop the regression models. Felling time standards were found to be influenced by diameter and distance between trees. Debranching time was found to be affected by the length and number of branches per tree. Time standards developed for minor transport operation were based on distance, slope, load volume and crew size. The volume per load, the number of logs per load and crew size were the variables found to be correlated with loading and unloading time. Average delay for each work element was also determined. Production standards for the different work elements as affected by the different parameters were generated based on the predicted time plus the necessary delay incurred by each activity. Tables and graphs were used to present the predicted estimates for each work element as a function of the various production factors. Production standards for each work element in hourly and daily effective working hours were tabulated. The corresponding cost/unit of production based on major operating expenses of different work elements were presented in tables.

125.

Pinol, Agustin A. and Victoria T. Lasmarias

1985. Growth, yield prediction and economic rotation of Giant ipil-ipil at different spacing and thinning intensities. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : thinning intensities, stand densities, site quality, yield prediction, economic rotation
Executing Agency : FORI
Funding Agency : PCARRD-IBRD

Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : 1985
Notes : An acceptable yield model for giant ipil-ipil plantation for wood was developed from abstracted time series data of 113 plots representing a wide range of site qualities, stand densities (spacing) and ages. Economic rotation of giant ipil-ipil for wood was likewise determined on the basis of spacing, site and average accessibility using the net present value (NPV) method at 22, 24 and 26 percent rate of interest. The optimum cutting age was found to be 4 years old. The effect of thinning age and spacing were also evaluated. Results indicated that only spacing significantly affect final volume yield. Thinning at the age of 2 and 3 years does not significantly affect final volume yield.

126.

Pollisco, Filliberto S. et. al.

1986. Smallholder tree farming and forestry farming. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : PCARRD
Funding Agency : IBRD, PCARRD
Status : CU
Species : *Leucaena leucocephala*, *Albizia falcataria*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : 1986
Notes : Acceptable volume prediction models were derived for *Leucaena leucocephala* and *Albizia falcataria*. Predictions made were based on measurements of diameter breast height (DBH) and merchantable height (MH). Yield prediction models were also derived for the two species. Albizia yield prediction equations were derived from the total merchantable volume, pulp timber and sawtimber volume yields for various

ages, site indices and spacing. Yield prediction equations for leucaena as fuelwood were also derived. Both species can be regenerated by clear cutting method and by coppicing. Results show data on volume of wood charge, charcoaling cycle time, proximate analysis of the charcoal produced and charcoal yield for all the ovens. The productivity of each worker in a charcoaling module varies with the type of oven.

127.

Posa, Bernardita T.

1985. The effects of gamma radiation on seed and seedlings characters of three varieties of *Leucaena leucocephala* (Lam.) de Wit grown in Macolod and Luisiana clay. Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : gamma radiation, irradiated, Macolod clay, Luisiana clay
Executing Agency : MS Thesis
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1982
Year Completed : 1982
Notes : Irradiated and non-irradiated seeds of *Leucaena leucocephala* varieties K67, K28 and Copil 2 were grown for 105 days in Macolod and Luisiana clays. Ipil-ipil growth was not affected by radiation doses of 250 r. to 20 kr. Magnesium uptake by shoots was reduced at 10 kr. exposure. Radiation had no effect on uptake of other nutrients by seedlings. It may be necessary to observe irradiated plants within a longer growing period. A significant interaction effect between soil and radiation treatment in magnesium uptake by shoots was obtained. The amount of magnesium utilized by the shoot in Macolod clay was highest in 10 kr radiation level. Lower uptake of magnesium by shoots was observed in Luisiana clay. Because of the

role of magnesium in photosynthesis, narrower range of radiation doses that could enhance magnesium uptake should be tested. There were no interactions effect between radiation dose and variety as well as among radiation dose, variety and soil. Varietal differences in growth characteristics of K67, K28 and Copil 2 were observed. Seedling height, stem diameter, dry matter, percent nodulation and nutrient uptake by shoot were high in K28. Interactions between soil and variety were significant in shoot biomass, height, nodulation, nitrogen and phosphorus uptake by shoots. All varieties had better growth and higher nutrient uptake in Macolod clay than in Luisiana clay.

128.

Potipak, Prasert

1983. Experiment on tree planting with agricultural crops. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section, 105-112.

Language : Thai
Key Words : agroforestry
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Melia azedarach*, *Eucalyptus camaldulensis*, *A. indica*, *Casuarina junhuhniana*
Sites : Amphoe Muang, Changwat Saraburi, Thailand (45m)
Year Started : 1983
Year Completed : 1983
Notes : Forest trees planted in agroforestry systems grew faster than those planted in non-agroforestry systems. *H. sabdariffa* is popularly known as "Krajiap".

129.

Promachotikool, Montree and Chalyporn Ounjittichai

1987. Effect of wood density on veneer

shrinkage. Proceedings of the Forestry Conference, Royal Forestry Department, Forest Product Section, 175-196.

Language : Thai
Key Words : veneer, mechanical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Leucaena leucocephala*
Sites : Changwat Si Sa Ket, Kanchanaburi, Saraburi, Thailand (35-130m)
Year Started : 1987
Year Completed : 1987
Notes : Shrinkage of veneer manufactured from *E. camaldulensis* and *L. leucocephala* increased with increasing wood density.

130.

Pukcharun, Weera and Saman, Ruaisungnoen

1987. Run-off and sediment yields of 5-year-old *Leucaena leucocephala* and *Acacia auriculiformis* plantation. Proceedings of the Forestry Conference, Royal Forest Department. Forest Biology, Natural and Environmental Conservation.

Language : Thai
Key Words : run-off, sediment
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*, *Leucaena leucocephala*
Sites : Amphoe Khon San, Changwat Chaiyaphum, Thailand (290-700m)
Year Started : 1986
Year Completed : 1987
Notes : The amount of run-off and sediment yields under *A. auriculiformis* plantation were greater than those under *L. leucocephala* plantation because of their differences in leaf characteristics.

131.

Pukcharun, Weera, Kittipong Pongbun and Saman Ruanisungnoen

1984. Some soil chemical after clearing mix deciduous forest to *Leucaena* plantation. Proceeding of the Forestry Conference, Royal Forest Department, 3:392-404.

Language : Thai
Key Words : soil chemical properties, mixed deciduous forest, reforestation
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Khon San, Changwat Chaiyaphum, Thailand (300m)
Year Started : 1984
Year Completed : 1984
Notes : Soil pH, O.M., N and K were found to be increased after the conversion of mixed deciduous forest to *L. leucocephala* plantation for 3 years.

132.

Quiniones, Sebastian S and Marcia P. Dayan

1985. Fungi associated with ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit). Philippine Forest Research Journal 10(3):143-162.

Language : English
Key Words : seed-borne fungi, field fungi, storage fungi, ipil-ipil
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala* (Lam.) de Wit
Sites : LVM, Philippines
Year Started : -
Year Completed : -
Notes : Thirteen fungi were isolated from *Leucaena* seeds collected from different provinces in the Philippines. These were: *Fusarium moniliforme*, *F. solani*, *F. semitectus*, *Collectotichum gloeosporioides*, *C. graminicola*, *C. truncatum*, *Botryodiplodia theobromae*, *Cephalosporium* sp., *Phoma* sp.,

Cladosporium cladoporoides, *Chaetomium* sp., *Penicillium* sp. and *Aspergillus flavus*. Three were seed-borne (*F. moniliforme*, *F. solani* and *C. graminicola*). *C. graminicola* completely inhibited the germination of ipil-ipil seeds once it had colonized the seeds. Eight were field contaminants (*F. semitectum*, *C. gloeosporioides*, *C. truncatum*, *B. theobromae*, *Cephalosporium* sp., *Phoma* sp., *Cladosporium cladoporoides* and *Chaetomium* sp.) and two were storage fungi (*nicillium* sp. and *Aspergillus flavus*).

133.

Quiniones, Sebastian S. and Maria P. Dayan

1981. Fungi associated with ipil-ipil (*Leucaena* spp.) seeds and their control. Terminal Report. PCARRD, College, Laguna, Philippines.

Language : English
Key Words : -
Executing Agency : FORI
Funding Agency : PCARRD-IBRD
Status : CU
Species : *Leucaena* spp.
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : 1981
Notes : A survey of fungi associated with ipil-ipil (*Leucaena* spp.) from different provinces in Luzon, Visayas and Mindanao was made. Thirteen fungal species were isolated and identified: *F. moniliforme*, *F. solani*, *F. semitectum*, *Colletotrichum glaesporioides*, *C. graminicola*, *C. truncatum*, *Botryodiplodia*, *Theobromae*, *Cephalosporium*, *P. phoma* spp., *Cladosporium* sp., *Chaetomium* sp., *Penicillium* spp. and *Aspergillus flavus*. Thirteen species were all pathogenic on local ipil-ipil pods while only 6 were effective on giant ipil-ipil pods. *Colletotrichum graminicola* once on the seeds will completely inhibits the germination of ipil-ipil seeds. Ten fungicides were used for seeds treatment, but only four (Benlate, Daconil, Delsene MX Agrocaptan) were capable of protecting and eradicating the growth of *Botryodiplodia theobromae*, *Collectotrichum* spp. and *Fusarium* spp.

134.

Racelis, Eloida A. and Angel P. Bagaloyos

1977. Germination of *Leucaena leucocephala* seeds under varying temperatures and length of soaking in water. Sylvatrop Philippine Forest Research Journal 2(1): 65-66.

Language : English
Key Words : germination, soaking, germination potential, sowing
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : -
Year Started : -
Year Completed : -
Notes : Seeds soaked in water with an initial temperature of 80°C for 1 min. showed a significantly high germination. A day after sowing, some seeds were attacked by fungi of the genera *Fusarium* and *Aspergillus*.

135.

Rahman, M. M., Md. Shahjahan and M. M. Hoque

Study on the improvement of existing homestead vegetation by introducing improved annual and perennial fruit trees.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Mangifera indica*, *Artocarpus integrifolia*, *Leucaena leucocephala* and *Eucalyptus camaldulensis*
Sites : F.S.R. site, Narikeli, Jamalpur, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

136.

Ratthakhet, Pagarat

1989. Role of on-farm planted fast-growing trees in supporting the Green Northeast Project. Proceedings of the Forestry Conference. Royal Forest Department. Silvicultural Section 1:17-29.

Language : Thai
Key Words : fast-growing trees, agroforestry
Executing Agency : KKU
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Casuarina junghuhniana,
Leucaena leucocephala,
Bamboo sp.
Sites : Northeastern Thailand
Year Started : 1984
Year Completed : 1989
Notes : Fast-growing trees are suitable to be grown on farm land because of their marketability, rapid growth, and low maintenance requirements.

137.

Rimando, E. F. and M. V. Dalmacio

1978. Direct seeding of ipil-ipil (*Leucaena leucocephala*). Philippine Forest Research Journal 3(3):171-175.

Language : English
Key Words : reforestation, direct seeding, ipil-ipil, seeds soaking
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Carranglan, Nueva Ecija, Philippines
Year Started : 1976
Year Completed : 1977
Notes : The applicability of direct-seeding as a fast way of rehabilitating and reforesting critical watershed areas was tested in Carranglan, Nueva Ecija, Central Luzon. Native and giant (Hawaiian K8) ipil-ipil varieties were used. The one-year data shows that site preparation increase survival of both varieties. Soaking of seeds at 80 C and drilling in scalped cultivated plots gave the most significant results in

germination, survival, and height growth.

138.

Rivera, Merlyn N.

Economic losses from psyllid infested *Leucaena*.

Language : English
Key Words : -
Executing Agency : ERDB
Funding Agency : PCARRD-RRDP-USA
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : 1987
Year Completed : 1988
Notes : -

139.

Rivera, Merlyn N.

1983. Marketing and price-structure of *Leucaena* and *Albizia* end-products. Philippine Forest Research Journal 8(1):19-37.

Language : English
Key Words : marketing, price structure, *Albizia* end-products, *Leucaena* end-products, cost and return analysis
Executing Agency : FORI
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Albizia falcataria
Sites : 12 different areas in Metro Manila, Philippines
Year Started : 1980
Year Completed : 1981
Notes : The study was conducted to assess the existing market distribution, to determine the prevailing prices and to estimate the net profit that farmers derived from *Leucaena* and *Albizia* end-products. The end-products were leafmeal, fuelwood, charcoal, propping materials/poles for *Leucaena* and pulpwood

for *Albizia*. Relatively, the market flow of leafmeal was the most complex and the pulpwood the simplest. Variation in prices was influenced by different factors such as seasons of the year, distance from source, type of locality and the terms of sale, whether the good is delivered to, or picked up by the middlemen, or end-users. The farmers/producers, for all the end-products, obtained a net return which implies that investing money in the production of these end-products will be a profitable venture. Income from *Leucaena* leaves amounted to P28.50/ha/harvest picked-up price and P70.70/ha for delivered price. For fuelwood, net return obtained by the farmers was P3,975/ha for picked-up price and P9,170/ha for delivered price. For charcoal produced and marketed during the dry season, a net return of P8,548/ha for picked-up price and P10,402/ha for delivered price was obtained. During the rainy season, income was P19,957/ha for picked-up price and P30,246/ha for delivered price. Farmers who produced and marketed propping materials/poles obtained an income of P26,687/ha for picked-up price and P38,196/ha for delivered price.

140.

Roswana, Tantan, Surdiding Ruhendi and Hariadi

1987. Keteguhan lentur statik kayu lamina antara jenis lamtoro gung (*Leucaena leucocephala*) dan keruing (*Dipterocarpus* spp.). BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : static bending strength
 Executing Agency : -
 Funding Agency : IPB, Faculty of Forestry
 Status : CU
 Species : *Leucaena leucocephala*,
Dipterocarpus spp.
 Sites : Indonesia
 Year Started : 1988
 Year Completed : 1988
 Notes : -

141.

Ruaisungnoen, Saman and Weera Pukcharun

1983. Infiltration rate under some ground cover species. Proceedings of the Forestry Conference. Royal Forest Department. Natural and Environmental Conservation Section.10-29.

Language : Thai
 Key Words : infiltration, ground cover
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Melia azedarach,
Leucaena leucocephala
 Sites : Amphoe Khon San,
 Changwat Chaiyaphum,
 Thailand (300m)
 Year Started : 1983
 Year Completed : 1983
 Notes : *M. azedarach* and
Eucalyptus spp. were recommended to be planted for soil and water conservation.

142.

Saha, S.

Routine purity, moisture content, germination and viability test of all seeds stored in the seed bank.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*,
A. mangium, *A. nilotica*,
Dalbergia sissoo,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Melia azedarach
 Sites : Bangladesh
 Year Started : 1988
 Year Completed : -
 Notes : There is no need to give information regarding site since this is a

laboratory work.

143.

Salud, Erlinda C.

1985. Carboxymethyl cellulose from giant ipil-ipil (*Leucaena leucocephala*) dissolving pulp. Terminal Report. FPRDI, College, Laguna, Philippines.

Language : English
 Key Words : -
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : College, Laguna, Philippines
 Year Started : 1984
 Year Completed : 1985
 Notes : The dissolving pulp of

giant ipil-ipil was rected with monochloroacetic acid to produce CMC. The volume and concentration of sodium hydroxide solution, reaction temperature, reaction time and etherifying agent to cellulose ratio were varied to yield a technical grade suitable for industrial use. The properties of the laboratory-produced CMC (carboxymethyl cellulose) were analyzed and compared with some commercial samples. It was found that CMC derived from giant ipil-ipil dissolving pulp is comparable to commercial samples, in terms of physical and chemical properties. Hence the production of CMC from the giant ipil-ipil is feasible.

144.

San Valentin, Horacio

Seasonal abundance, distribution and host range of psyllid pest infesting ipil-ipil.

Language : English
 Key Words : -
 Executing Agency : ERDB
 Funding Agency : PCARRD-RRDP-USA
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : College, Laguna, Philippines

Year Started : 1987
 Year Completed : 1988
 Notes : -

145.

Santosa, Sugeng, Najmulah and Syaripudin

1988. Pemeliharaan *Curinus coeruleus* predator kutu loncat lamtoro (*Heteropsylla incisa*). Journ. Penel. dan Pengemb. Kehutanan, Vol. IV, No. 1:28-29, Maret.

Language : Indonesian
 Key Words : *Curinus coeruleus*, *Heteropsylla incisa*
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Indonesia
 Year Started : 1986
 Year Completed : 1987
 Notes : -

146.

Sargento, Jose O.

Establishment of giant *Leucaena* plantation by direct seeding and planting cutting. Terminal Report.

Language : English
 Key Words : direct seeding, cuttings, K-8 ipil-ipil variety, grassland
 Executing Agency : UPLB
 Funding Agency : PCARRD
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : Sto. Tomas, Batangas, Philippines
 Year Started : 1980
 Year Completed : -
 Notes : Establishment by direct seeding and cutting giant *Leucaena* plantation in the open-grassland within the Makiling Forest was studied. The giant variety used was K-8. In direct seeding, grasses were cut and land was plowed with a flail treches only once immediately before the seeds were broadcasted. Rate of seedling was 100 seeds per square meter area.

One-meter long cuttings with different butt diameter were planted one meter apart along contour rows 3 meters apart in grassland areas without site preparation. The one year data for direct seeding study showed that plowing significantly enhanced survival and height growth particularly in entirely cleared plots. On cuttings, the treatment using butt diameter size of 2.0-2.49 cm. gave the highest rate of survival.

147.

Sargento, Jose O.

Establishment of giant *Leucaena* plantations by direct seeding and planting cuttings. Terminal Report. PCARRD. Philippines.

Language : English
Key Words : -
Executing Agency : PCARRD-UPLB
Funding Agency : PCARRD
Status : CU
Species : *Leucaena leucocephala*
Sites : Sto. Tomas, Batangas, Philippines

Year Started : -
Year Completed : -
Notes : Results show that field performance of directly seeded seeds is greatly affected by the type of site preparation method and the site conditions after germination. The generally low germination rate was partly due to adverse weather conditions a few days after sowing. Plowing significantly enhanced survival of germinated ipil-ipil seeds particularly in entirely cleared and plowed plots. There were no significant differences among the three butt diameter classes in terms of the survival rate of cuttings one year after planting. The very low survival rate of cuttings may be due to inadequate site preparation and rooting treatment of cuttings, poor soil and environmental conditions.

148.

Semana, J. A., V. B. Lasmarias and C. H. Ballon

1983. Hardboard from Peru giant ipil-ipil.

FPRDI Journal 12(3 & 4):61-66. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : defibrator, hardboard, pulp, ipil-ipil
Executing Agency : FPRDI
Funding Agency : NSTA
Status : CP
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines

Year Started : -
Year Completed : -
Notes : Two and one-half year old Peru giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) wood grown in Davao was made into hardboard by the wet process, using 0.5% was sizing and a total hot-pressing time of 6.5 minutes. The hardboard produced met the requirements of the Philippine Standard for standard-type-hardboards.

149.

Siholboro, Ruben A.

1983. Performance of five strains of Salvadorian variety of ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit.) under DMMSU-CAF Rosario, La Union condition. Undergraduate Thesis: DMMSU-CAF. Rosario, La Union, Philippines.

Language : English
Key Words : -
Executing Agency : DMMSU-CAF
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Alipang, Rosario, La Union, Philippines

Year Started : 1983
Year Completed : 1983
Notes : This study was conducted to find out the performance of five strains of Salvadorian variety of giant Ipil-ipil designated as K6(T1), K8(T2), K22(T3), K28(T4) and K67(T5). Results of the study revealed that the five strains of Salvadorian variety of giant Ipil-ipil significantly differ on the percentage of

germination. The five strains of Salvadorian variety of giant Ipil-ipil performed significantly different on the average diameter increment 30-90 after sowing. On the average, height of seedlings 90 days after sowing K28 recorded the highest mean of 16.03 cm while K6 (T1) obtained the largest average diameter with a mean of 1.63 mm. Percentage survival of the seedlings 90 days after sowing, there was no significant difference among treatment means. The percentage survival observed in K8 (T2), K22 (T3) and K28 (T4) have identical treatment means of 97% each.

150.

Sicat, Emmanuel V.

Production of plywood from small diameter tree species II. slicing and rotary cutting of Yemane.

Language : English
 Key Words : -
 Executing Agency : FPRDI
 Funding Agency : FPRDI
 Status : CU
 Species : *Leucaena leucocephala*
 Sites : College, Laguna, Philippines
 Year Started : 1987
 Year Completed : 1988
 Notes : -

151.

Siddique, A. B. and A. R. Chowdhury

Fibre studies of pine, giant ipil-ipil and *Acacia auriculiformis*.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : BFRI
 Status : CU
 Species : *Pinus caribea*, *Leucaena leucocephala* and *Acacia auriculiformis*
 Sites : Bangladesh
 Year Started : 1988
 Year Completed : 1989
 Notes : There is no need to give

information regarding site and altitude since this is a laboratory work.

152.

Siregar, Chairil Anwar

1986. Pertumbuhan Lamtoro Gung (*Leucaena leucocephala*) CV. K. 28 pada Berbagai Tingkat dan Kerapatan Tanaman. Bul. Pen. Hutan, No. 476:62-75.

Language : Indonesian
 Key Words : soil pH and plant density
 Executing Agency : FRI
 Funding Agency : FRI
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Indonesia
 Year Started : 1983
 Year Completed : 1984
 Notes : -

153.

Siregar, Chairil Anwar

1986. The effects of lime application and plant properties of four year old *Leucaena leucocephala* plantation. For. Res. Bull. 1986.

Language : English
 Key Words : liming, plant spacing
 Executing Agency : FR - Forest Research Station
 Funding Agency : FR
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Indonesia
 Year Started : 1983
 Year Completed : 1986
 Notes : -

154.

Siregar, Chairil Anwar

1988. Pengaruh pengapuran dan sisanya serta kerapatan tanaman terhadap pertumbuhan lamtorogung (*Leucaena leucocephala*) CV. K. 28. Bul. Pen. Hutan 503:13-28.

Language : Indonesian

Key Words : effects of liming, plant density
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Leucaena leucocephala*
Sites : Indonesia
Year Started : 1983
Year Completed : 1986
Notes : -

155.

Siregar, Chairil Anwar, Hajati Yusuf and Nurhadi Djangsastro

1989. Respon pertumbuhan lamtorogung (*Leucocephala*) terhadap perbedaan jenis tanah, ekstrak daun kayu putih (*Melaleuca leucadendron*) dan Pupuk NPK. Bul. Pen. Hutan, 513:17-31.

Language : Indonesian
Key Words : leaf extract, growth response
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Leucaena leucocephala*, *Melaleuca leucadendron*
Sites : Indonesia
Year Started : 1986
Year Completed : 1986
Notes : -

156.

Siregar, Chairil Anwar, Taulana Sukandi and Nurhadi Djangsastro

1986. Penanaman mahoni (*Swietenia macrophylla*) dan lamtorogung (*Leucaena leucocephala*) sebagai usaha perbaikan tanah kritis di bawah tegakan kayu putih (*Melaleuca leucodendron*). Bul. Pen. Hutan, 486:21-33.

Language : Indonesian
Key Words : improving degraded soil
Executing Agency : FRI
Funding Agency : FRI
Status : CP
Species : *Swietenia macrophylla*, *Leucaena leucocephala*,

Melaleuca leucadendron
Sites : Indonesia
Year Started : 1984
Year Completed : 1985
Notes : -

157.

Sornngai, Anunt, Boonchoob Boontawee and Tinnakorn Wuttiwichan

1988. The production of *Acacia mangium* Willd., *Leucaena leucocephala* Lam de Wit, *Acacia auriculiformis* Cunn., and *Eucalyptus camaldulensis* Dehnh. in a 4-year-old plantation. Proceedings of the Fourth Silvicultural Seminar, Royal Forest Department, 1.

Language : Thai
Key Words : biomass, firewood production
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia mangium*, *A. auriculiformis*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*
Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (350m)
Year Started : 1983
Year Completed : 1983
Notes : -

158.

Suad, Emmanuel Noli B.

1987. Rotary veneer cutting of four fast-growing plantation hardwood species. FPRDI Journal 16(1):86-104.

Language : English
Key Words : knife angle, mosebar compression, rotary cutting, veneer
Executing Agency : FPRDI
Funding Agency : FPRDI
Status : CP
Species : *Leucaena leucocephala*,

- Gmelina arborea*,
Albizia falcataria
- Sites** : College, Laguna,
Philippines
- Year Started** : 1984
- Year Completed** : 1986
- Notes** : This study dealt on the rotary cutting of four fast-growing plantation hardwood species, namely kaatoan bangkal (*Anthocephalus chinensis* (Lamk.) Rich. ex. Walp.), giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit), Mollucan sau (*Albizia falcataria* (L.) Fosb.) and Yemane (*Gmelina arborea* R. Br.). The effects of mosebar compression (NC), knife angle (KA) and veneer thickness (VT) on quality of veneer produced per specie were evaluated. The criteria used for evaluation were thickness uniformity, depth of lathe checks (tightness) and surface smoothness. Veneer thickness was found highly significant in relation to the tightness and smoothness of the four plantation species.
- 159.**
Subansenee, Wanida, Leela Kayikananta and Piyachart Guagool
1988. Pollen analysis which honey bee collected pollen from plants. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 27-40.
- Language** : Thai
- Key Words** : pollen, honey,
Apis mellifera
- Executing Agency** : RFD
- Funding Agency** : -
- Status** : CP
- Specie** : *Acacia auriculiformis*,
Eucalyptus camaldulensis,
Leucaena leucocephala,
Cassia siamea
- Sites** : Amphoe Muak Lek,
Changwat Saraburi,
Amphoe Pak Chong,
Changwat Nakkon
Ratchasima, Thailand
(520m)
- Year Started** : 1988
- Year Completed** : 1988
- Notes** : Blossom periods of
E. camaldulensis, *C. siamea* and *L.*

leucocephala are year round, while *A. auriculiformis* ranges from June to November for bees.

160.
Suriamihardja, Sutarjo and Tati Rostiwati

1985. Pengaruh tanah hutan *Hopea odorata*, *Khaya anthotheca* dan *Terminalia arjuna* terhadap pertumbuhan dan perbintilan *Leucaena leucocephala*. Bul Pen. Hutan, No. 471:1-6.

- Language** : Indonesian
- Key Words** : soil effects, growth and nodulation
- Executing Agency** : FRI
- Funding Agency** : FRI
- Status** : CP
- Species** : *Hopea odorata*,
Khaya anthotheca,
Terminalia arjuna,
Leucaena leucocephala

- Sites** : Indonesia
- Year Started** : 1983
- Year Completed** : 1984
- Notes** : -

161.
Tandug, Eustaquito T.

1983. Effects of site management practices on the growth and development of directly seeded Ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit) Doctor of Philosophy Thesis. UPLB, College, Laguna, Philippines.

- Language** : English
- Key Words** : growth, development, management practices, ipil-ipil, crop protection, liming, fertilization
- Executing Agency** : PhD Thesis
- Funding Agency** : IDRC
- Status** : CU
- Species** : *Leucaena leucocephala*
- Sites** : Calamba, Laguna,
Philippines (300 meters)
- Year Started** : 1980
- Year Completed** : 1981
- Notes** : Management practices such as site preparation, liming, fertilization

and crop protection affecting establishment of *Leucaena leucocephala* Lam de Wit (K8 variety) in upland grassland areas using direct seeding method were studied over a 12-month period. Chemically prepared plots using Roundup herbicide at 3.2 kgae/ha gave significantly higher survival rate (85%), diameter (32.5 mm), height (340.8 cm) and dry matter yield (883 g.) than mechanically prepared (hand brushing) sites during the study period. Mechanically prepared sites resulted in 48% survival rate, 20.3 mm diameter, 216.5 cm height, and 304 g dry matter yield. Liming to raise soil pH from 5.6 to 6.5 did not significantly improve growth and development of *Leucaena*. Fertilization increased growth significantly but did not appear to affect germination and shoot/root ratio. Ammophos fertilizer at 61 g/hole or 61 g/8 kg airdried soil in a pot had greater effect than ordinary superphosphate at 68 g/hole on seedlings grown in both pot and field experiments. However dry matter production of pot-grown seedlings was much lower (23.8g) than those of chemically prepared sites in the field (51.6g). Results indicate that the walls of the pots acted as physical barriers which restricted the natural root development of the 4-month-old seedlings, thereby reducing dry matter production. Response of the seedlings to ordinary superphosphate fertilizer alone was as good as ordinary superphosphate in combination with CB81 inoculant, an Australian variety.

162.

Tandug, Leuvina M

1986. Biomass prediction equations for giant ipil-ipil (*Leucaena leucocephala* (Lam.) de Wit). Philippine Forest Research Journal 11(1&2):1-22.

Language : English
Key Words : biomass estimation, growth and yield prediction, volume equation, tree component biomass
Executing Agency : ERDB
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*

Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : Aboveground biomass of 111 giant ipil-ipil trees, with ages of 2 to 10 years, from six provinces of the Philippines were determined to develop equations for estimating fresh and oven-dry weight of whole tree and its components. Average oven-dry weight of the total tree biomass ranged from 2.97 to 517.33 kgs. The average tree contained 71.38% of the total dry weight in the merchantable bole, 3.45% in the foliage and 25.17% in the topwood, small and large branches and twigs. Out of the seventeen regression models tested and evaluated for biomass estimation, an allometric model using two predictor variable provided the best estimates. Prediction equations based on this model and two others were derived in estimating fresh and oven-dry weight of the whole tree and its components; bole, topwood and large branches, stems and leaves.

163.

Thaingam, Rattana, Boonchoob Boontawee, Pisan Kuwalairat and Anunt Sorngai

1988. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department. 2.

Language : Thai
Key Words : plantation, silvicultural system
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *M. azedarach*,
A. auriculiformis,
Eucalyptus camaldulensis,
Acacia mangium,
Leucaena leucocephala
Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)
Year Started : 1982
Year Completed : 1987
Notes : -

164.

Thoenhirun, Surang

1987. Effects of blue stain on wood samples of 7 tree species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 109-113.

Language : Thai
 Key Words : durability, fungi
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Melia azedarach
 Sites : Thailand
 Year Started : 1987
 Year Completed : 1987
 Notes : *M. azedarach* was more sensitive to *Botryodiplodia theobromae* than *L. leucocephala* resulting to the dark color on *M. azedarach* wood.

165.

Thongthamungcharoen, Pansak and Anu Chatprasit

1980. Some observations on planting *Leucaena leucocephala*. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 2:121-126.

Language : Thai
 Key Words : regeneration, seed collection, seed germination, stump
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*
 Sites : Thailand
 Year Started : 1980
 Year Completed : 1980
 Notes : Year-round regeneration was recorded for *L. leucocephala*. Seed should be collected from October to April. Seed trees should be older than 3 years old. High survival rates could be expected from stump planting.

166.

Tumalluan, Benjamin D.

1985. Species and provenance trial of selected fuelwood species. Philippine Forest Research Center 10(1):35-48.

Language : English
 Key Words : ipil-ipil, akleng-parang, kakauate, agoho provenance variation
 Executing Agency : FORI
 Funding Agency : -
 Status : CP
 Species : *Leucaena leucocephala*,
Gliricidia sepium
 Sites : Cabagan, Isabela, Philippines
 Year Started : 1981
 Year Completed : 1984
 Notes : Species and provenance trial of selected fuelwood species was conducted in Cabagan Forest Research Station, Cabagan, Isabela in July 1981, to determine adaptability of these species in this area. The results showed that ipil-ipil (*Leucaena leucocephala* (lam.) de Wit) and akleng-parang (*Albizia procera* (Roxb.) Benth.) had the Highest field survival (80%), followed by kakauate (*Gliricidia sepium* (Jacq.) Stend.) (65%) and Agoho (*Casuarina equisetifolia* Forst.) (53%). Despite its relatively low survival, Agoho (53%) out-performed the other species in height and diameter growth. In the provenance level, Agoho Mindoro and Laguna showed exceptional survival, height and diameter growth over Agoho Quezon, for kakauate Nueva Vizcaya also outgrew the other provenances.

167.

Usman, Toga Silitonga and Kornia Sofyan

1985. Sifat pulp sulfat lamtorogung (*Leucaena leucocephala*) pada berbagai umur dan bagian kayu teras-gubal. BSc Thesis, Faculty of Forestry, IPB.

Language : Indonesian
 Key Words : sulphate pulp properties

Executing Agency : FF - Faculty of Forestry,
 IPB
Funding Agency : -
Status : CU
Species : *Leucaena leucocephala*
Sites : INA
Year Started : 1987
Year Completed : 1985
Notes : -

168.

Valmonte, Aida D.

1979. Wood quality evaluation of selected strains of Hawaiian giant ipi-igil (*Leucaena leucocephala* (Lam) de Wit). Master of Science Thesis. University of the Philippines at Los Banos, College, Laguna, Philippines.

Language : English
Key Words : wood quality, lumen width, runkel ratio, pulp yield potential, extractive content
Executing Agency : MS Thesis
Funding Agency : NSDB
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : An assessment of the wood quality of four selected Hawaiian giant strains of *Leucaena leucocephala* Lam. de Wit namely K8, K22, K28 and K67, was made on the basis of specific gravity, extractive content and given morphological characteristics. Specific gravity, cell wall thickness and runkel ratio exhibited an increase radially for all strains studied. For specific gravity, the apparent increase from 20% to 100% of the radial distance reckoned from the pith ranges from 34.52% for K28 to 52.16% for K8. For fiber length, the increase is from 13.39% for K67 to 19.85% for K8. On the other hand, cell wall increased in thickness from 7.08% for K67 to 9.52% for K22 from pith to the bark. Runkel ratio values likewise increased from 13.16% for K67 and 21.21% for K28. The other properties examined such as extractive content, fiber diameter and lumen width

showed general decrease towards the bark. The radial patterns of variation of the different wood properties exhibited by individual strains showed no serious departures from the patterns based on the pooled data for strains. Since variety effect is highly significant for extractive content, fiber length, cell wall thickness and Runkel ratio, the different strains were compared and ranked according to the magnitude of their means. The comparison showed that extractive content and fiber length of K28, K22 and K8 are not significantly different from K67. On the other hand, K67 has a fiber length statistically different from the other three strains.

169.

Wisuppakan, Kamon

1985. Planting trials of *Leucaena leucocephala* for alternate energy source. Silvicultural Research Bulletin. Royal Forest Department. 1:147-157.

Language : Thai
Key Words : species trial, spacing trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Amphoe Mae Taeng, Changwat Chiang Mai, Thailand (400m)
Year Started : 1984
Year Completed : 1984
Notes : -

170.

Wisuppakan, Kamon

1986. Agroforestry plantation for rural energy development. Silvicultural Research Bulletin. Royal Forest Department. 1:56-61.

Language : Thai
Key Words : MPTS, agroforestry, firewood production
Executing Agency : RFD
Funding Agency : -
Status : CP

Species : *A. indica*,
A. auriculiformis,
C. siamea, *Leucaena*
leucocephala,
Eucalyptus
camaldulensis

Sites : Amphoe Mae Tang,
Changwat Chiang Mai,
Thailand (400m)

Year Started : 1984
Year Completed : 1984
Notes : -

171.
Wisupphan, Kamon

1986. Growth of five species in biomass studies of sample plot. Silvicultural Research Bulletin, Royal Forest Department. 1:158-167.

Language : Thai
Key Words : MPTS, biomass, spacing trial
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Acacia auriculiformis,
C. siamea,
Leucaena leucocephala,
A. indica

Sites : Amphoe Mae Taeng,
Changwat Chiang Mai
(400m)

Year Started : 1984
Year Completed : 1984
Notes : -

172.
Wongkhaluang, Charuni and Mayuri
Chitkaew

1987. The durability of some fast growing timbers and some dipterocarp timbers to wood destroying insects. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 21-33.

Language : Thai
Key Words : durability, insects,
dipterocarps

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Only heartwood of
E. camaldulensis is durable to white rot (*Polystictus sanguineus*) and brown rot (*Gloeophyllum saepiarium*) but sapwood does not.

173.
Wongkhaluang, Charuni and Yupaporn
Sornnuwat

1987. The durability of some fast growing timbers to the attack of subterranean termite. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 231-237.

Language : Thai
Key Words : durability, termite
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*,
Melia azedarach

Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : *L. leucocephala* and
M. azedarach were not sensitive to
Coptotermes gestroi subseranean termite.

174.
Wuttiwichan, Tinnakorn and Boonchoob
Boontawee

1988. Development of potting system. Proceedings of the Forestry Conference. Royal Forest Department, 2.

Language : Thai
Key Words : potting techniques
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus*
camaldulensis,

Leucaena leucocephala,
Melia azedarach,
Acacia auriculiformis

Sites : Amphoe Pak Thong
 Chai, Changwat Nakhon
 Ratchasima,
 Thailand (400m)

Year Started : 1988
Year Completed : 1988
Notes : -

175

**Wuttiwichan, Tinnakorn and Boonchoob
 Boontawee**

1988. Test period of fertilization.
 Proceedings of the Forestry Conference.
 Royal Forest Department, 1.

Language : Thai
Key Words : seedling, fertilization
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Leucaena leucocephala,
Melia azedarach,
C. siamea

Sites : Thailand
Year Started : 1984
Year Completed : 1984
Notes : -

176.

Zabala, Neptali Q.

1985. Clearcutting and coppicing as
 regeneration methods for ipil-ipil in the
 Ilocos Region. Terminal Report. PCARRD,
 College, Laguna, Philippines.

Language : English
Key Words : clearcutting, coppice,
 regeneration pattern,
 ipil-ipil
Executing Agency : UPLBCF
Funding Agency : PCARRD-IBRD
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna,
 Philippines
Year Started : 1981

Year Completed : 1985
Notes : A) Clearcutting method.
 Two years and six months after clearcutting
 the average diameter of increment is 0.8425
 cms. and the average height increment is
 81.91 cms. This may not be a bad
 performance considering moisture stress
 suffered during drought from January to
 June 1983. To stimulate national
 regeneration pattern, no weeding was done
 in the quadrant. Hence, competition for
 nutrients, moisture and light was evident.
 The growth pattern has been variable among
 regeneration as there were crowded spots
 with so many seedlings and loose spots with
 only few seedlings. Clearcutting as a
 regeneration method in giant ipil-ipil
 plantations is feasible but the major
 drawbacks are the uneven distribution of
 regeneration and the seemingly poor
 competitive ability of the seedlings against
 weeds. B) Coppice method. The initial
 development of coppice or sprout depend on
 the amount of food stored in the stump.
 Hence, one sprout would leave more sprouts
 taking nutrients from the stump. After one
 year of growth, the stump decayed but
 callous has already been developed forming
 a new stump. From these, the plant draw
 moisture and nutrients from the soil to
 support its growth. Trees with more coppices
 were smaller in diameter and shorter in
 length than those with only one coppice.
 However, in terms of total volume, per unit
 area, trees with two or three coppices have
 more than those with only one coppice.

177.

Zabala, Neptali Q.

1985. Varietal trials for ipil-ipil in Sto.
 Domingo, Ilocos Sur, Philippines.

Language : English
Key Words : -
Executing Agency : UPLBCF
Funding Agency : PCARRD-IBRD
Status : CU
Species : *Leucaena leucocephala*
Sites : College, Laguna,
 Philippines
Year Started : 1981
Year Completed : 1985

Notes : The last measurements of height and diameter were done in March 1985. Based on the data, K-341, K-28, K-4, K-29 are the promising varieties which performed better than the rest. These varieties originally came from Hawaii. The performance of the four varieties in the fields indicate their ability to withstand competition against weeds and associated vegetation and adapt to the prevailing climatic and adaphic conditions in Sto Domingo, Ilocos Sur. Their growth form is satisfactory for fuelwood and timber production.

1.
**Abhijatabutr, Arnnop, Pensri Namprasert
and Wichit Sonthiwanich**

1986. Comparison of kraft pulping from three fast-growing species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Product Section, 1:49-54.

Language : Thai
Key Words : pulp, physical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Lan Sak, Changwat Uthaihani, Thailand (50-800m)
Year Started : 1986
Year Completed : 1986
Notes : *M. azedarach* is suitable for 14% active alkali pulping, due to its 50% pulp yield as well as superior physical property of pulp.

2.
Arunpanurak, Wikran

1982. Variation in wood quality of *Melia azedarach* planted in Lad Krating plantation. Proceedings of the Forestry Conference. Royal Forest Department. Forest Products Section, 107-117.

Language : Thai
Key Words : genetic variation, specific gravity, fiber dimension, wood structure
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Sanam Chai Ket, Changwat Chachoengsao, Thailand (320m)
Year Started : 1982
Year Completed : 1982
Notes : Variation in wood quality of *M. azedarach* as a result of genotype, environment, genotype and

environment interactions and tree maturity was studied.

3.
Bhumibhamon, Suree

1987. *Melia* and *Azadirachta* in the tropics: basic information. *Melia* and *Azadirachta* Research Series No. 1.

Language : English
Key Words : morphology
Executing Agency : KUFF
Funding Agency : F/FRED
Status : CP
Species : *Melia azedarach*, *Azadirachta indica*
Sites : Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Taiwan
Year Started : 1987
Year Completed : 1987
Notes : *M. azedarach* and *A. indica* were deliberately grown at one site and time to produce more than one product, e.g. timber, fuelwood, extractives, medicines, food, fodder and service attributes concerning the environment.

4.
**Bhumibhamon, Suree, Vinai Thavorn and
Ayudh Ladplee**

1988. Volume table of *Melia azedarach* Linn. in Lad Krating plantation. *Melia azedarachta* Research Series 2.

Language : Thai
Key Words : volume table
Executing Agency : KUFF/RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)
Year Started : 1983
Year Completed : 1983
Notes : The regression equation

used was $V = 0.01463 + 0.000034 D^2 \cdot H$ when V = overback volume (cu.m.), D = diameter at breast height (cm) and H = total height (m). Equation was expected to be applicable to other *M. azedarach*.

5.

Chaichanasuwat, Ornanong, Bandit Kobmu, Prapan Pukrutayakamee and Pisa Wasuwanch

1988. Seed quality testing by x-radiography. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 2.

Language : Thai
Key Words : seed, x-radiography
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Azadirachta indica,
Melia azedarach

Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : -

6.

Chaiklom, Damrong

1978. Forest pest controls. Proceedings of the Forestry Conference. Royal Forest Department, Forest Biology Section. 33-44.

Language : Thai
Key Words : fungi, insect, nematodes
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Melia azedarach,
Casuarina junghuhniiana

Sites : Thailand
Year Started : 1977
Year Completed : 1977
Notes : Various methods of pest controls were reviewed, including chemical, biological, silvicultural, and legal controls.

7.

Chaloempong, Aniwat

1977. Damping-off of seedling in nursery. Proceedings of the Forestry Conference, Royal Forest Department, Forest Biology Section, 1-9.

Language : Thai
Key Words : damping-off
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*,
Melia azedarach
Sites : Amphoe Muang,
Changwat Si Sa Ket,
Thailand (130m)
Year Started : 1977
Year Completed : 1977
Notes : Low resistances to damping-off were recorded for *E. camaldulensis* and *M. azedarach* seedlings.

8.

Chaloempong, Aniwat, Theerawat Buntaweekul and Krutsana Rodsenglam

1983. Seed-borne fungi and disease of Thai forest tree species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Biology Section, 95-91.

Language : Thai
Key Words : fungal diseases
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Acacia auriculiformis*,
Leucaena leucocephala,
Melia azedarach
Sites : Amphoe Muang,
Changwat Lampang
(200-2,000m), Thailand
Year Started : 1983
Year Completed : 1983
Notes : Some seed-borne fungi and diseases as follows: Botrydiploia theobromae in *A. auriculiformis*; *Drechslera rostrata*, *Fusarium oxysporum*, *Promopsis* sp., and *B. theobromae* in *M. azedarach*; and *D. hawaiiensis* in *L. leucocephala*.

**9.
Chamnankit, Siripan**

1981. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry 2:141-145.

Language : Thai
Key Words : growth, survival
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Ngao,
Changwat Lampang,
Thailand (200-2,000m)
Year Started : 1981
Year Completed : 1981
Notes : -

**10.
Chamnankit, Siripan**

1981. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section 1:61-65.

Language : Thai
Key Words : seed viability
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Ngao,
Changwat Lampang,
Thailand (200-2,000m)
Year Started : 1979
Year Completed : 1981
Notes : -

**11.
Chanchai, Sommai**

1979. Viability and germination of *Melia azedarach* seed under different storage periods. Proceedings of the Forestry Conference. Royal Forest Department, General Forestry Section. 1:1-4.

Language : Thai
Key Words : viability, germination,
seed storage

Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Ngao, Changwat
Lampang (200-2,000m)
Year Started : 1976
Year Completed : 1978
Notes : Viability and germination percentages of newly collected *M. azedarach* seed did not differ from 1-year-old seed.

**12.
Chanchai, Sommai**

1979. Viability tests of *Melia azedarach* seed under different storage periods. Proceedings of the Forestry Conference, Royal Forest Department, General Forestry Section. 1:5-7.

Language : Thai
Key Words : viability, seed storage
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Ngao, Changwat
Lampang (200-2,000m)
Year Started : 1976
Year Completed : 1978
Notes : Seed viability of *M. azedarach* was not different between newly collected seed, 1-year-old and 2-year-old seed.

**13.
Charoensri, Sansern and Montree
Promachotikool**

1976. Sulfate pulping of Persian lilac. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 232-242.

Language : Thai
Key Words : pulp
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Thailand
Year Started : 1976

Year Completed : 1976
Notes : Pulp produced by sulfate pulping process can be used for making single wall bag, wrapping papers, linerboard, printing and writing paper. Multi-wall bag manufacturing is improved by tearing strength considered good quality.

14.

Chayamarut, Kongkanda

1988. Poisonous plants. Proceedings of the Forestry Conference, Royal Forest Department, Natural and Environmental Conservation, Economic Forest Management, Social Forestry and Forest Administration Section, 87-93.

Language : Thai
Key Words : poisonous plants
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : Bakayanin and neobakayanin were found in *M. azedarach* fruits which were poisonous to human beings and animals.

15.

Chomchan, Arun, Suthi Visuthidhepakul and Pirom Hoatakul

1985. Properties and utilization of fast-growing trees. Proceedings of the Forestry Conference. Royal Forest Department. 2:298-329.

Language : Thai
Key Words : mechanical properties, physical properties
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Acacia aciculiformis*, *Casuarina junghuhniana*, *C. equisetifolia*, *Melia azedarach*,

Eucalyptus camaldulensis

Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Amphoe Khon San, Changwat Chaiyaphum, Amphoe Pak Chong, Changwat Nakhon Ratchasima, Thailand

Year Started : 1985

Year Completed : 1985

Notes : -

16.

Chowdhury, A. R. and A. B. Siddique

Characterization of five village tree species for making paper pulp and hard board.

Language : -
Key Words : -
Executing Agency : BFRI, Bangladesh
Funding Agency : BFRI
Status : CU
Species : *Mangifera indica*, *Artocarpus integrifolia*, *Melia azedarach* and *Erythrina indica*
Year Started : 1987
Year Completed : 1988
Notes : This is a laboratory work so there is no need to mention site.

17.

Dhamanitayakul, Pratuang

1979. The phenology of trees in dry evergreen forest and its application to timing for logging operation. Forest Research Bulletin, Royal Forest Department, 64:1-19.

Language : Thai
Key Words : phenology, dry evergreen forest, time, logging
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Changwat Nakhon Ratchasima (300 m), Thailand

Year Started : 1976
Year Completed : 1977
Notes : Phenology: *M. azedarach* was leafless in December, leaf flushing in January to November, flowering in February, fruiting in April to January and no fruit fall. Appropriate time for logging was rainy season.

18.
Islam, Md. Shafiqul

Survey on the present status of neem trees in Barind Area of Greater Rajshahi.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Melia azedarach*
Sites : Godagari, Nachole, Niamatpur, Bangladesh
Year Started : 1989
Notes : -

19.
Jiraungkornkul, Arunee

1987. Natural durability of some fast-growing timbers to the attack of brown rot fungi. Proceedings of the Forestry Conference, Royal Forest Department. Forest Products Section. 93-108.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Eucalyptus camaldulensis*, *Melia azedarach*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : Fungi: *Gloeophyllum sepiarium*, *G. subferrugineum*, *Favolus* spp., *Trametes cervino-gilvus*, *Haploporous ljubarskyi*, *Fomitopsis pinicola*, and *Schizophyllum commune*.

20.
Jirayut, Tawat

1987. The study of wood-cement bonding by stick test method. Thai Journal of Forestry 6(1): 51-56.

Language : English
Key Words : wood-cement bonding, stick method
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Melia azedarach*
Sites : Amphoc Lan Sak, Changwat Uthai Thani, Thailand (800m)
Year Started : 1986
Year Completed : 1986
Notes : The study focused on wood-cement bonding with Diamond-brand Portland cement, which was available on the domestic market. Based on the results, the method provided a quick sorting of the suitable species for products.

21.
Jirayut, Tawat and Chalyporn Ounjittichai

1984. Wood-cement bonding by stick test method. Proceedings of the Forestry Conference. Royal Forest Department. 2:90-96.

Language : Thai
Key Words : wood-cement bonding, stick test method
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*, *Leucaena leucocephala*
Sites : Thailand
Year Started : 1984
Year Completed : 1984
Notes : -

22.
Kar, N. K. and M. Z. Abedin

Testing homestead agroforestry module for

fuel and fodder in Barind Area.

Language : -
 Key Words : -
 Executing Agency : BARI
 Funding Agency : OFRD/BARI
 Status : OR
 Species : *Leucaena leucocephala*,
Albizia procera,
Melia azedarach,
Dalbergia sissoo
 Sites : F.S.R. site, Saroil,
 Barind, Rajshahi,
 Bangladesh
 Year Started : 1989
 Year Completed : -
 Notes : -

23.

Khammabutr, Prachan

1980. Yield of nine-non teak species in trial plots at twelve years old. Proceedings of the Forestry Conference. Royal Forest Department. General Forest Section.

Language : Thai
 Key Words : yield, trials
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*
 Sites : Changwat Lampang,
 Thailand (200-2,000m)
 Year Started : 1979
 Year Completed : 1980
 Notes : -

24.

Pattanaprapapan, Somsak

1981. Study on the manufacture of veneer and plywood from *Melia* species. Proceedings of the Forestry Conference, Royal Forest Department. Forest Products Section 127-138.

Language : Thai
 Key Words : veneer, plywood
 Executing Agency : RFD
 Funding Agency : -
 Status : CP

Species : *Melia azedarach*
 Sites : Amphoe Sanam Chai
 Khet, Changwat
 Chachoengsao, Thailand
 Year Started : 1981
 Year Completed : 1981
 Notes : -

25.

Pattanaprapapan, Somsak, Charal Thongstit and Worakit Sunthonbura

1987. Hardboard from mixed *Dipterocarpus* sp. with other deciduous. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 161-173.

Language : Thai
 Key Words : hardboard, mechanical properties
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Melia azedarach,
Casuarina junghuhniana
 Sites : Thailand
 Year Started : 1987
 Year Completed : 1987
 Notes : Objective: Selected and developed suitability of using mixed *Dipterocarpus* sp. with other deciduous hardwoods in the manufacture of hardboard.

26.

Pongpanit, Krutsana, Aniwat Chaloepong and Theerawat Buntaweekul

1988. Seedling disease in Sakaerat nursery. Proceedings of the Forestry Conference. Royal Forest Department, 2.

Language : Thai
 Key Words : fungi, seedling
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Acacia auriculiformis*,
Eucalyptus
camaldulensis, *Melia*
azedarach, *C. siamea*

Sites : Amphoe Pak Thong Chai, Changwat Nakhon Ratchasima, Thailand (300m)

Year Started : 1985

Year Completed : 1985

Notes : -

27.

Pongumphai, Somnuek and Niwat Ruangpanit

1984. Species composition and phytomass of undergrowth under different kinds of trees and spacings in forest plantation. Thai Journal of Forestry 3(4):241-252.

Language : Thai

Key Words : grass, growth, biomass

Executing Agency : KUFF

Funding Agency : -

Status : CP

Species' : *Melia azedarach*,
Eucalyptus camaldulensis

Sites : Amphoe Dan Chang, Changwat Suphan Buri, Thailand (45m)

Year Started : 1983

Year Completed : 1983

Notes : *Pennisetum polytachyon* and *Eupatorium odoratum* were the main species, comprising more than 80% of the total phytomass.

28.

Ponoy, Bundit

1983. Seed storage and the proper viability test of *Melia azedarach* Linn. Master of Science (Forestry) Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai

Key Words : seed morphology, seed storage, seed viability test

Executing Agency : -

Funding Agency : -

Status : CP

Species : *Melia azedarach*

Sites : Amphoe Lan Sak,

Changwat Uthai Thani, Amphoe Sanam Chai Khet, Changwat Chachoengsao, Amphoe Muak Lek, Changwat Saraburi, Thailand

Year Started : 1982

Year Completed : 1983

Notes : *M. azedarach* seeds stored in sealed plastic bag and kept at 12c were optimum methods. Cutting test has higher viability percentage than germination test and tetrazolium test was the best method for viability.

29.

Potipak, Prasert

1983. Experiment on tree planting with agricultural crops. Proceedings of the Forestry Conference. Royal Forest Department. General Forestry Section, 105-112.

Language : Thai

Key Words : agroforestry

Executing Agency : RFD

Funding Agency : -

Status : CP

Species : *Leucaena leucocephala*,
Melia azedarach,
Eucalyptus camaldulensis,
A. indica,
Casuarina junhuhniana

Sites : Amphoe Muang, Changwat Saraburi, Thailand (45m)

Year Started : 1983

Year Completed : 1983

Notes : Forest trees planted in agroforestry systems grew faster than those planted in non-agroforestry systems. *H. sabdariffa* is popularly known as Krajiap.

30.

Promachotikool, Montree and Chaiyaporn Ounjittichai

1985. Study on plywood manufacture from fast growing species. Proceedings of the Forestry Conference. Royal Forest

Department. 3:647-653.

Language : Thai
Key Words : mechanical properties, plywood, glue
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Lan Sak, Changwat Uthai Thani, Thailand (50-800m)
Year Started : 1985
Year Completed : 1985
Notes : Plywood properties of *M. azedarach* were tested on the basis of various kinds of glue.

31.

Rengpian, Somsak

1982. Thermomechanical pulping of Persian lilac (*Melia azedarach* Linn.) for newsprint grade. Master of Science in Forestry Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : pulp
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao (320m), Thailand
Year Started : 1982
Year Completed : 1982
Notes : *M. azedarach* thermo-mechanical pulp was not suitable for newsprint grade. If this species were to be used as a raw material for newspaper, further studies of chemithermomechanical or chemimechanical pulping would be needed.

32.

Ruaisungnoen, Saman and Weera Pukcharun

1983. Infiltration rate under some ground cover species. Proceedings of the Forestry Conference. Royal Forest Department. Natural and Environmental Conservation

Section. 10-29.

Language : Thai
Key Words : infiltration, ground cover
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Melia azedarach*, *Leucaena leucocephala*
Sites : Amphoe Khon San, Changwat Chaiyaphum, Thailand (300m)
Year Started : 1983
Year Completed : 1983
Notes : *M. azedarach* and *Eucalyptus* spp. were recommended to be planted for soil and water conservation.

33.

Ruangpanit, Niwat and Somnuek Pongumphai

1987. Biomass of some leguminosae species under different ages and spacing of *Melia azedarach* Linn. plantation. Thai Journal of Forestry 6(1): 18-35.

Language : Thai
Key Words : biomass, leguminosae species, ages classes, spacings
Executing Agency : KUFF
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Dan Chang, Changwat Suphan Buri, Thailand (40-45m)
Year Started : 1984
Year Completed : 1985
Notes : Three leguminous species, namely *Centrosema pubescens*, *Macroptilium atropurpureum* and *Lablab purpureus*. They yielded 879.63kg/ha of biomass under 2*8m spacing and 506.25 kg/ha under 4*4m spacing. Appropriate spacing for the agroforestry was 2*8m.

34.

Ruangpanit, Niwat and Somnuek Pongumphai

1988. Biomass of some grass species under different ages and spacings of *Melia azedarach* Linn. plantation. Thai Journal of Forestry 7(1):37-50.

Language : Thai
 Key Words : biomass, grass species, ages, classes, spacing
 Executing Agency : KUFF
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*
 Sites : Amphoe Dan Chang, Changwat Suphan Buri, Thailand (40-45m)
 Year Started : 1980
 Year Completed : 1988
 Notes : Largest biomass value was recorded for *Panicum maximum*, followed by *Brachiaria nuziziensis*, *P. maximum* c.v. *hamil* and *P. maximum* var *trichoglumes*. Average dry matter content of grass species was higher in 2x8 m spacing than in 4x4 m spacing.

35.
 Saha, S.

Routine purity, moisture content, germination and viability test of all seeds stored in the seed bank.

Language : -
 Key Words : -
 Executing Agency : BFRI
 Funding Agency : IDA
 Status : OR
 Species : *Acacia auriculiformis*, *A. mangium*, *A. nilotica*, *Dalbergia sissoo*, *Eucalyptus camaldulensis*, *Leucaena leucocephala*, *Melia azedarach*
 Year Started : 1988
 Year Completed : -
 Notes : There is no need to give information regarding site and altitude since this is a laboratory work.

36.
 Sahunalu, Pongsak

1983. The Third Seminar on Silviculture Forestry for Rural Community. Faculty of Forestry, Kasetsart University, Bangkok, Thailand. 28-1-17.

Language : Thai
 Key Words : biomass, plantation
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*, *Acacia auriculiformis*, *Leucaena leucocephala*
 Sites : Amphoe Somdet, Changwat Kalasin, Thailand (320m)
 Year Started : 1983
 Year Completed : 1983
 Notes : -

37.
 Sahunalu, Pongsak, Pricha Dhanmanonda, Buared Prachalyo, Kanit Muangnil and Somchai Thoranisorn

1988. Preliminary study on yield-density effect of *Melia azedarach* Linn. plantation. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 1.

Language : Thai
 Key Words : yield, density
 Executing Agency : KUFF
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*
 Sites : Amphoe Somdet, Changwat Kalasin, Thailand (320m)
 Year Started : 1983
 Year Completed : 1983
 Notes : -

38.
 Sahunalu, Pongsak, Pricha Dhanmanonda, Wisut Suwannaphuunt and Buared Prachalyo

1981. Net primary production of man-made forest in the agroforestry system of Thailand. Forest Research Bulletin 1-37.

Language : Thai
Key Words : agroforestry, primary production, cassava
Executing Agency : KUFF/RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Somdet, Changwat Kalasin, Thailand (320m)
Year Started : 1980
Year Completed : 1980
Notes : -

39.

Santisuk, Thawatchai

1978. Pioneer species: an observation on natural regeneration on degraded lands. Proceedings of the Forestry Conference. Royal Forest Department, Forest Biology Section. 14-29.

Language : Thai
Key Words : pioneer species, natural regeneration, degraded land
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Melia azedarach*, *Casuarina junghuhniiana*, *Casuarina equisetifolia*
Sites : Thailand
Year Started : 1977
Year Completed : 1977
Notes : *M. azedarach* and *C. junghuhniiana* were found to be the pioneer species both in the lowlands and highlands, while *C. equisetifolia* was an outstanding pioneer on degraded lands.

40.

Semsuntud, Nutthakorn

1983. Flower and seed crop of *Melia azedarach*. Master of Science (Forestry) Thesis. Kasetsart University, Bangkok, Thailand.

Language : Thai

Key Words : flower morphology, flower variation, seed variation
Executing Agency : -
Funding Agency : -
Status : CP
Species : *Melia azedarach*
Sites : Amphoe Sanam Chai Khet, Changwat Chachoengsao, Thailand (400-700m)

Year Started : 1983
Year Completed : 1983
Notes : Time requirement for flower and fruit development was 30 and 105 days, February and March respectively. Hormone GA4/7 and GA3 had negative effect on flowering but had increased height growth. GA was Gibberellin growth hormone.

41.

Sodachan, Chompunuch

1988. Relationship between leaf morphology and water consumption of some forest tree seedlings. Master of Science in Forestry. Kasetsart University, Bangkok, Thailand.

Language : Thai
Key Words : leaf morphology, water consumption, forest, seedling
Executing Agency : -
Funding Agency : FADV
Status : CP
Species : *E. camaldulensis*, *Acacia auriculiformis*, *Melia azedarach*
Sites : Changwat Chiang Mai, Thailand (1,800m)

Year Started : 1983
Year Completed : 1984
Notes : The study measured transpired water by potted weighing method, using three seedlings of each species at the same age. Anatomy and morphology of leaves were recorded, with leaf area in relation to transpiration.

42.

Suppakun, Noppamas

1988. Ethnomedical uses, biological activities and chemical constituents of *Melia azedarach*, *L. melia* and *Azadirachta*. Research Series 7.

Language : English
Key Words : ethnomedical, biological activities, chemical constituents
Executing Agency : -
Funding Agency : F/FRED
Status : CP
Species : *Melia azedarach*
Sites : Thailand
Year Started : 1988
Year Completed : 1988
Notes : *M. azedarach* is one of the herbal drugs which Thai people use for the treatment of many diseases such as dermatitis, leprosy, rheumatoid arthritis, anthelmintic, diuretic and analgesic activities.

43.

Thoenhirun, Surang

1987. Effects of blue stain on wood samples of 7 tree species. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 109-113.

Language : Thai
Key Words : durability, fungi
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Melia azedarach*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : *M. azedarach* was more sensitive to *Botryodiplodia theobromae* than *L. leucocephala* resulting to the dark color on *M. azedarach* wood.

44.

Wongkhaluang, Charuni and Yupaporn Sornnuwat

1987. The durability of some fast growing timbers to the attack of subterranean

termite. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 231-237.

Language : Thai
Key Words : durability, termite
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Leucaena leucocephala*, *Melia azedarach*
Sites : Thailand
Year Started : 1987
Year Completed : 1987
Notes : *L. leucocephala* and *M. azedarach* were not sensitive to *Coptotermes gestroi* subterranean termite.

45.

Wongkhaluang, Charuni, Chatuporn Mangkhalarat, and Yupaporn Sornnuwat

1986. The comparative destruction of termites from pine plantation. Proceedings of the Forestry Conference, Royal Forest Department, Forest Products Section, 2:287-295.

Language : Thai
Key Words : termites, destroy
Executing Agency : RFD
Funding Agency : -
Status : CP
Species : *Eucalyptus camaldulensis*, *Acacia auriculiformis*, *Melia azedarach*
Sites : Amphoe Muang, Changwat Chiang Mai
Year Started : 1986
Year Completed : 1986
Notes : All species studied were found to be moderately durable-very durable to *Coptotermes gestroi*, *Globitermes sulphureus*, *Microcerotermes crassus* and *Macrotermes carbonareus* and perishable-durable to *G. sulphureus*.

46.

Wongmanee, Chamnan

1988. Spacings for stump preparation and stump sizes for planting in *Melia azedarach*

Linn. Proceedings of the Fourth Silvicultural Seminar. Royal Forest Department, 2.

Language : Thai
 Key Words : spacings, stump, size
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Melia azedarach*
 Sites : Amphoe Muak Lek,
 Changwat Saraburi,
 Amphoe Pak Thong,
 Changwat Nakhon
 ratchasima, Thailand
 (300m)
 Year Started : 1986
 Year Completed : 1986
 Notes : -

Language : Thai
 Key Words : seedling, fertilization
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Leucaena leucocephala,
Melia azedarach,
C. siamea
 Sites : Thailand
 Year Started : 1984
 Year Completed : 1984
 Notes : -

47.

Wuttiwichan, Tinnakorn and Boonchoob
 Boontawee

1988. Development of potting system.
 Proceedings of the Forestry Conference.
 Royal Forest Department, 2.

Language : Thai
 Key Words : potting techniques
 Executing Agency : RFD
 Funding Agency : -
 Status : CP
 Species : *Eucalyptus camaldulensis*,
Leucaena leucocephala,
Melia azedarach,
Acacia auriculiformis
 Sites : Amphoe Pak Thong
 Chai, Changwat Nakhon
 Ratchasima,
 Thailand (400m)
 Year Started : 1988
 Year Completed : 1988
 Notes : -

48.

Wuttiwichan, Tinnakorn and Boonchoob
 Boontawee

1988. Test period of fertilization.
 Proceedings of the Forestry Conference.
 Royal Forest Department, 1.

1.

Adnan B. Mohammad

1987. An urban forestry perspective.
National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : function potentials, problems, urban forestry
Executing Agency : FRIM
Funding Agency : FRIM
Status : CP
Species : *P. indicus*, *Samanea saman*, *S. macrophylla*, *H. odorata*, *D. costula*, *F. fragrans*, *Tectona grandis*
Sites : Kuala Lumpur, Malaysia
Year Started : 1987
Year Completed : - -
Notes : -

2.

Quinsay, Elizabeth A.

1984. Performance of broilers as affected by different levels of Acacia leaf meal as feed supplement. Undergraduate Thesis. Don Mariano Marcos Memorial State University, College of Agriculture and Forestry, Rosario, La Union. Philippines.

Language : English
Executing Agency : DMMMSU-CAF
Funding Agency : -
Status : CP
Species : *Samanea saman* Jacq. Merr.
Sites : Palina West, Urdaneta, Pangasinan, Philippines
Year Started : 1983
Year Completed : 1984
Notes : This study sought to determine the effect of acacia leaf meal to be used as feed supplement in the ration of broilers. It made use of sixty (60) day old broiler chicks with four treatments replicated three times employing the Completely Randomized Design (CRD). The treatment used were T0-no feed supplement (control) T1- 5% acacia meal of the ration, T2-10% acacia meal of the ration, T3-15% acacia

meal of the ration. The feed rations were given to the birds starting at the third week until the sixth week which was the period of feeding trials. It was found that supplementing 10% acacia leaf meal - meal increased the final weight of the birds through their feed conversion did not differ significantly from those birds fed with pure commercial feeds and those birds fed with higher percentage of acacia meal in ration.

3.

Ratthakette, Pagarat

1988. Economic aspect of *Samanea saman* Merr. to Northeastern farmers. Proceedings of the Forestry Conference, Royal Forest Department, Natural and Environmental Conservation, Economic Forest Management, Social Forestry and Forest Administration

Language : Thai
Key Words : economic, lac, Northeast, farmer
Executing Agency : KKU
Funding Agency : FsRC
Status : CP
Species : *Samanea saman*
Sites : Changwat Khon Kaen, Maha Sarakham, Kalasin, Loei, Thailand (520m)
Year Started : 1987
Year Completed : 1988
Notes : Lac cultivation on rain tree can be considered as an additional source of income to the farmers in the Northeast, about 1,000-10,000 bath/family/year. Cultivation period is in winter. Woodresidues can be used as firewood.

4.

Zakariya B. and HJ. Abdullah

1987. Optimizing multiple roles of shoe tress for urban use. National MPTS Seminar. FRIM, Kepong.

Language : English
Key Words : roles of trees, tree characteristics, selection

of trees
Executing Agency : UPM
Funding Agency : UPM
Status : CP
Species : *Pterocarpus indicus*,
Samanea saman, *Millettia*
atropurpurea, *Fragrea*
fragrans
Sites : Serdang, Malaysia
Year Started : 1987
Year Completed : -
Notes : -

1.

Chen, C. P.

1987. Trees for farmers - fodder trees. First National MPTS Seminar. FRIM, Kepong, 14-15 December 1987.

Language : English
Key Words : agronomy, utilization of fodder trees, forage, animal production
Executing Agency : MARDI
Funding Agency : MARDI
Status : CP
Species : *Leucaena leucocephala*, *Gliricidia sepium*, *Sesbania* sp.
Sites : Serdang, Malaysia
Year Started : -
Year Completed : -
Notes : -

2

Gonzales, Esther V.

1984. Leaf protein from hardwood species as feed supplement for chicken. FPRDI Journal 13(1):66-75. FPRDI, College, Laguna, Philippines.

Language : English
Key Words : leafmeal, hardwood, softwood, hubbard chicken
Executing Agency : FPRDI
Funding Agency : NSTA
Status : CP
Species : *Sesbania grandiflora*, *Albizia falcataria*, *Gliricidia sepium*
Sites : College, Laguna, Philippines
Year Started : -
Year Completed : -
Notes : Of the eight leaf species analyzed for protein content, katurai (*Sesbania grandiflora*) gave the highest protein content of 29.58% followed by Moluccan sau (*Albizia falcataria*) with 26.14%. The leaves of these two species were used in the experimental feeding of chicken to evaluate the nutritional value

of the leaf proteins. Katurai and Moluccan sau leaf meal, in separate feeding trials, were incorporated as protein source with or without fish meal in the basic diet of experimental chickens. The control diet consisted of 15% fish meal. In addition to the basic ingredients, the three experimental diets had 3.75%, 11.25% and 15% of either katurai or Moluccan sau leafmeal. The feed efficiency of the leafmeal was determined by the amount of feed consumed and the weight of the chicken. Statistical analysis showed that the gains in weight of chicken fed with 3.75% and 11.75% katurai leafmeals were not significantly different from those rationed with the control diet of 15% fish meal. The feed efficiencies of the diets of these two levels of leaf meal were better or just as good as the control. With Moluccan sau, only the diet with 3.75% leafmeal was not significantly different from the control. However, the feed efficiency of this diet was not comparable to the control. The results of the experimental study showed that katurai leaves can be used as a feed supplement to the basic diet of chicken in levels of 3.75-11.25% as substitute for the conventional fish meal.

3.

Kar, N. K. and M. Z. Abedin

Performance of different MPTS on the crop field boundaries of barind area.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Species : *Sesbania sesban*, *Leucaena leucocephala*, *Acacia nilotica*, *Eucalyptus camaldulensis*, *Dalbergia sissoo*, *Acacia auriculiformis*
Sites : F.S.R. site, Saroil, Barind, Rajshahi, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -

4.
Serrano, Rogello C.

1982. Effect of management system and Katurai *Sesbania grandiflora* interplanting on varicose borer *Agilus sexsignatus* (caleoptera:Buprestidae) attack on bagras (*Eucalyptus deglupta*) plantaion. Master of Science Thesis. University of the Philippines at Los Banos. College, Laguna, Philippines.

Language : English
Key Words : varicose borer, management system, interplanting, katurai, bagras
Executing Agency : -
Funding Agency : PICOP
Status : CU
Specles : *Sesbania grandiflora*, *Eucalyptus deglupta*
Sites : Bislig, Surigao del Sur, Philippines
Year Started : 1980
Year Completed : 1981
Notes : The varicose borer, *Aqrilus sexsignatus* Fisher is a worsening pest of Bagras plantation in Mindanao. The pest is still unknown in forestry, it is believed to have developed and spread widely with the establishment of wide pure bagras stands inside the concession of PICOP in the last 10 years. Katurai (*Sesbania grandiflora*) was interplanted with bagras to serve as a barrier to the pest. This possible control was developed from the observation that bagras, in combination with other trees in the natural forest, are not attacked by the varicose borer. On such situation, bagras is comparatively less apparent to the pest than in pure plantation. Results of this investigation indicate a decline in infestation level as measured by the injury indices of the test samples. The decline in injury was attributed to the presence of katurai in the plantation. The effect of interplanting intensity, however, was not clearly understood because all treatment plots showed injury decline. Similarly, the effect of inagement system was not clearly defined because all treatment plots declined in injury level at the end of the experiment. However, management system significantly affected the branch pattern of the samples.

The age 1 samples were inducæd to produce more branches by the ring weeding treatment. The number of branches affect directly the oviposition site of the pest.

5.
Islam, M. B., M. B. Hossain and M. A. Mannaf

Study on the Performance of Different Plant Species for Fodder and Fuel in the Homestead Area of Tista Flood Plain.

Language : -
Key Words : -
Executing Agency : BARI
Funding Agency : OFRD/BARI
Status : OR
Specles : *Sesbania sesban*, *Leucaena leucocephala*, *Dalbergia sissoo*
Sites : F.S.R. site, Janokinathpur, Rangpur, Bangladesh
Year Started : 1989
Year Completed : -
Notes : -