

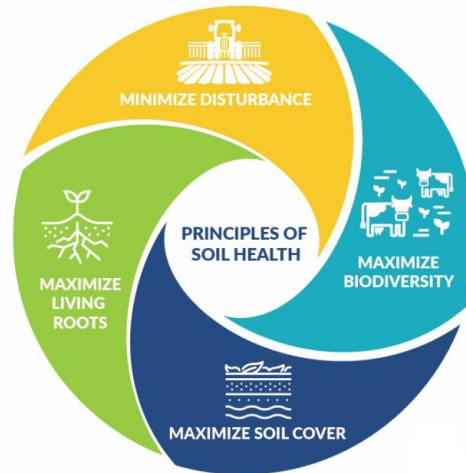
NEWSLETTER

Malaysian Society of Soil Science (MSSS)



Message From The Editorial Desk "Soil Health"

Soil plays an important role to the environmental health. Soil health is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. As world population and food production demands rise, keeping our soil healthy and productive is of paramount importance (USDA, 2023). Therefore, together we keep our soil in healthy condition!



Principle of soil health (Source: USDA)

Benefits of healthy soils by FOA (Source: Pinterest)

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Dr. Khairun Nisa Kamarudin
Mdm. Intan Nadhirah Masri

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Tree Planting and World Soil Day Celebration at Setiu, Terengganu

SOCIETY
ACTIVITY

Tree Planting Program with community of Setiu was organized by Soil Management Branch of Forest Research Institute of Malaysia (FRIM). It was held on 30th November 2022 at FRIM Research Station in Setiu, Terengganu. In conjunction with this program, World Soil Day was also celebrated, with its theme "Soils: Where Food begins". The World Soil Day which falls on 5th December every year, to raise awareness of maintaining a healthy ecosystem while improving soil health. The program was attended by communities from "Jawatankuasa Pengurusan dan Keselamatan (JKPP) Kampung Bari Besar, Kampung Bari Kecil, Kampung Taman Hijrah, Majlis Daerah Setiu" and Terengganu Silica Consortium Sdn. Bhd. A total of 225 *Baeckea frutescens* young trees or commonly known as "cucur atap" was successfully planted. This event contributes to the Malaysia's Greening Program through 100 Million Trees Planting Campaign with the theme "Our Trees, Our Lives", which started since 2021 to 2025. In this activity at Setiu, organic media comprised of biochar and compost, were used in planting and rehabilitate BRIS (Beach Ridges Interspersed with Swales) soil, known for its high sand content.



Photo during Tree Planting Program with community of Setiu



Photos of Tree Planting Program with community of Setiu at Terengganu

Seminar on Advances in Soil, Plant, Fertilizer, Compost and Effluent Analysis

SOCIETY
ACTIVITY

Seminar on Advances in Soil, Plant, Fertilizer, Compost and Effluent Analysis also known as ASPFA 2022, was successfully held on 6th to 8th September 2022 at Cititel Hotel in Penang. ASPFA 2022 with the theme on “Moving Forward in Sustainable Agriculture through Green Laboratory Technology” was organized by Agriculture Laboratory Association of Malaysia (AgLAM). The seminar officiated by the Director of MARDI, Pulau Pinang, Mr Amirrudin Mohktar, was witnessed by 83 participants from 44 agencies. The objectives of the seminar were i) to be updated on the latest development in the analytical techniques of soil, plant, fertilizer, compost & effluent, ii) to present new research findings in the areas of analytical techniques and agronomic practices, iii) to be updated on current issues, practices and developments in laboratory management, instrumentation, safety and quality and iv) to present on new analytical technologies with the aims of implementing more cost-effective, more rapid and more environmental friendly techniques.



Group photo of ASPFA 2022

The scientific and technical programmes were divided into 5 sessions: Session i) laboratory quality and safety, Session ii) and iii) good lab practices and methodology, Session iv) SAMM policy and fertilizer updates and Session v) instrument and lab automation. A total of 24 oral presentations were continued for two days which included 4 invited speakers from Department of Occupational Safety and Health Penang, Department of Chemistry, Department of Standards Malaysia and Fertilizer Industry Association of Malaysia (FIAM). Fourteen booth exhibitors from local suppliers exhibited their instrument and products during the event. Post seminar visits were organized on the third day which comprised of two different sites i.e Agilent Technologies Factory at Bayan Lepas, Penang and Biosynergy Laboratory Sdn. Bhd. in Jitra, Kedah which was organised by Gerhardt Malaysia Sdn. Bhd.



During technical programme



Booth exhibition



Booth exhibition



Oral presentation from UPM



Invited presentation from FIAM



Invited speaker from DOSH



Group photo after Agilent Technologies visit



Visit to Bio Synergy Laboratory

The International Soil Science Conference (SOILS 2023)

SOCIETY
ACTIVITY

The International Soil Science Conference (SOILS 2023) was held on May 9th to 11th, 2023 at the Seri Malaysia Kangar Hotel, Perlis. This year the conference brought the theme of “Sustainable Soil Management Towards Food Security and Climate Change”. The conference was officiated by Yang Berhormat Datuk Seri Haji Mohamad bin Sabu, Minister of Agriculture and Food Security, Malaysia.



Opening speech by YB Datuk Seri Haji Mohamad Sabu

In this conference, attendees had the opportunity to build up a network with fellow scientists, exchange ideas, and learn about the latest trends in soil science. Overall, the conference succeed in fostering collaboration and promoting advancements in the field of soil science. Congratulations to MSSS and UiTM for jointly organizing such event.



Welcoming speech by AP Ts. Dr. Shukor Sanim Mohd Fauzi, Rector UiTM Perlis Branch and Dr. Rosazlin Abdullah, MSSS President



Group photo of SOILS 2023 at the Seri Malaysia Kangar Hotel, Perlis



YB Datuk Seri Haji Mohamad Sabu officiated the SOILS 2023 and received the plaque from the Rector of UiTM Perlis



Photos during the first day of scientific programme of SOILS 2023



Photos during the first day of scientific programme and dinner of SOILS 2023



Photos during second day of scientific programme of SOILS 2023

By: Dr. Khairun Nisa Kamarudin & Normardhiyah Roslan (UiTM)

SOILS 2023 - Post Conference Tour

SOCIETY
ACTIVITY



Group photo at one of the soil pedons in UiTM Perlis, Arau

The International Soil Science Conference's (SOILS 2023) post-conference tour was held on May 11, 2023. The Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA Perlis Branch (UiTM Perlis) collaborated with the Department of Agriculture (DOA) and the Malaysian Society of Soil Science (MSSS) to organize this tour. The main purpose of the event is to disseminate the latest information on soil mapping and classification, as well as land utilization and management.

This visit consists of two components, the first includes an explanation session and a technical visit to Soil Pedon, located at the Farm Unit of UiTM Perlis. This technical visit aims to disseminate information on recent developments on the mapping and classification of soils, to stimulate and encourage a lively exchange of knowledge and experience among soil scientists on the classification and utilization of soils, to promote judicious use of land in tandem with a concerted effort to protect and preserve the environment, and to understand the identification and management of the soils. For this session, two soil pedons have been prepared. The respective Soil series found in Pedon 1 and Pedon 2 are the Kuah and Napai series. Participants are presented with general information, a profile description, and mechanical and chemical data for each soil series. Briefings, as well as hands-on training sessions, were conducted by Agricultural Officers from



Brief session by DOA staffs on soil pedons at UiTM Perlis, Arau



Group photo at the Superfruit Valley, Chuping

During the evening session, the participants were taken to visit the Superfruits Valley, which is a farm that is managed by Fig Direct Sdn. Bhd. where they are specializing in growing superfruits. This farm has been in operation since 2016 and is located in Chuping, Perlis. This farm grows fruits such as figs, lemon, gac, and passion fruit. Additionally, gooseberries, finger lime, and mulberry are also grown here. This farm is run using a smart farming system that is powered by the latest internet of things (IoT)

technology. During the visit, the owner of this farm, Mr. Robin Lim, personally led the briefing session. Participants were taken to visit superfruits that were grown in the open areas and inside the greenhouses. Participants also had the opportunity to sample the deliciousness and freshness of the farm produce. The post-tour came to an end with lunch at Padang Besar, where the participants also had the opportunity to buy local souvenirs to take home with them.



Brief session by Mr Robin at Superfruit Valley, Chuping and then participants went for shopping and lunch at Padang Besar

International Webinar: Biochar for Environmental and Agricultural Use

SOCIETY
ACTIVITY
COVERAGE

The Biochar Malaysia Association (BMA) and the Asosiasi Biochar Indonesia (ABI) successfully organized the International Webinar on Biochar for Environmental and Agricultural Use on June 7, 2023. The webinar was supported by the Malaysian Society of Soil Science (MSSS), the University of Western Australia, and Universitas Mataram.

INTERNATIONAL WEBINAR
"Biochar For Environmental and Agricultural Use"

Keynote speaker :
Prof. Dr. Nanthi Bolan
The University of Western Australia
"Black is the new green : Biochar Application Modulates Soil Health and Fertility"

Speaker 1 :
Assoc. Prof. Dr. Amran Salleh
The Biochar Malaysia Association (BMA)
"Biochar productions: Principles and Practices"

Speaker 2 :
Prof. Dr. Didiek Hadjar Goenadi
Asosiasi Biochar Indonesia (ABI)
"Biochar for Sustainable Oil Palm"

Moderator :
Dr. Daljit Singh Karam
Vice President 1
Biochar Malaysia Association

Registration : <https://bit.ly/BFEA2023>

June 7, 2023
09.00 a.m. (Java, Sumatera)
10.00 a.m. (Lombok, Perth, Malaysia)

Free e-Certificate

@officialunram University of Mataram www.unram.ac.id

Poster for the webinar promotion

Distinguished speakers graced the webinar, with presentations from Prof. Dr. Nanthi Bolan, hailing from The University of Western Australia, who delivered an insightful talk titled "Black is the new green: Biochar application modulates soil health and fertility." Prof. Dr. Didiek Hadjar Goenadi, a representative from Asosiasi Biochar Indonesia (ABI), shared his expertise through a lecture on "Biochar for Sustainable Oil Palm." Assoc. Prof. Dr. Amran Salleh, representing the Biochar Malaysia Association, presented on "Biochar production: Principles and Practices." The webinars drew an enthusiastic audience of over 200 participants.

The Biochar Malaysia Association is dedicated to fostering the growth of biochar in Malaysia, enhancing biochar production, and optimizing its application in agriculture and the industrial sector. Additionally, BMA aims to raise awareness regarding biochar as a valuable carbon sequestration method among interested parties. Furthermore, BMA serves as a vital platform for the exchange of ideas and information, both in promoting and developing biochar in Malaysia and establishing international connections with other biochar associations.

Postgraduate Thesis Award 2022

SOCIETY AWARD
&
ACKNOWLEDGEMENT

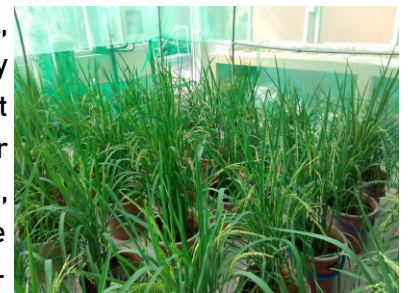
Miss Nur Sa'adah binti Abdul Halim from Universiti Malaya has been awarded the Postgraduate Thesis Award 2022 for her thesis titled "Effects of Soil Amendments on Growth and Productivity of Paddy Grown on Acid Sulfate Soil: Proteomics Analysis." The award includes a monetary prize of RM 1,000 and a certificate. Congratulations Miss Nur Sa'adah !!! Here's the summary of her thesis.



Acid sulfate soil

The study was carried out to investigate the effects of various types of soil amendments on plant growth, yield and physiological responses and proteomic study on rice grown in extremely acidic conditions using ground magnesium limestone (GML), basalt, biochar and compost as soil amendments. The studied acid sulfate soil with pH of 3.76 was obtained from a paddy field in Merbok, Kedah. The plant responses were evaluated based on the agronomic, physiological and yield performance. From the study, the compost-treated rice showed the best performance in all three criteria. Compost treatment increased the soil pH up to 6.25. For physiological performance, chlorophyll, photosynthetic and water use efficiency rate was high in compost treatment. At harvest, a higher number of tillers (8 per plant), number of panicles (8 per plant), size of panicle (22.19 cm), number of grains per panicle (121), percentage of filled grain (83.04%), 1000 grain weight (23.3 g) and percentage of harvest index (88.71%) were observed in the compost treatment. Results exhibited that the application of soil expressed in rice leaf tissues by mass spectrometry analysis that exposed the differential expression of proteins between treatment. Overall protein identification, 769 proteins were identified and represented the main categories of protein identification. The identified proteins were involved in gene ontology, enzyme class, and pathway. 485 of protein was involved in biological process of rice plant and the main five biological process that were identified is cellular process (405) metabolic process (401), response to stimulus (83), biological regulation (50) and localization (30). It can be concluded that addition of soil amendment may lead to improved rice growth by increasing soil pH and creating favorable soil conditions and does affect differential protein generation for rice cultivation on acid sulfate soil.

The study was carried out to investigate the effects of various types of soil amendments on plant growth, yield and physiological responses and proteomic study on rice grown in extremely acidic conditions using ground magnesium limestone (GML), basalt, biochar and compost as soil amendments. The studied acid sulfate soil with pH of 3.76 was obtained from a paddy field in Merbok, Kedah. The plant responses were evaluated based on the agronomic, physiological and yield performance. From the study, the compost-treated rice showed the best performance in all three criteria. Compost treatment increased the soil pH up to 6.25. For physiological performance, chlorophyll, photosynthetic and water use efficiency rate was high in compost treatment. At harvest, a higher number of tillers (8 per plant), number of panicles (8 per plant),



Paddy planted during the experiment

MSSS Fellow Award

AWARD
&
ACKNOWLEDGEMENT

Associate Professor Dr Halimi Mohd Saud (UPM) was awarded with the MSSS Fellow Award during the International Soil Science Conference (SOILS 2023) which was held on May 9th to 11th, 2023, at the Seri Malaysia Kangar Hotel, Perlis. The award was presented by Yang Berhormat Datuk Seri Haji Mohamad bin Sabu, Minister of Agriculture and Food Security, Malaysia during the Opening Ceremony of SOILS 2023. We extend our heartfelt congratulations to Associate Professor Dr Halimi Mohd Saud for this award and his remarkable contribution in the MSSS.



Associate Professor Dr Halimi Mohd Saud (UPM) received an award from YB Datuk Seri Haji Mohamad bin Sabu during Opening Ceremony of SOILS 2023

MSSS Postgraduate Thesis Award

AWARD
&
ACKNOWLEDGEMENT

Miss Nur Sa'adah Abdul Halim (UM) has been awarded with the MSSS Postgraduate Thesis Award during the International Soil Science Conference (SOILS 2023) which was held on May 9th to 11th, 2023, at the Seri Malaysia Kangar Hotel, Perlis. The award was presented by Yang Berhormat Datuk Seri Haji Mohamad bin Sabu, Minister of Agriculture and Food Security, Malaysia during the Opening Ceremony of SOILS 2023. We extend our heartfelt congratulations to Miss Nur Sa'adah Abdul Halim for this award. Congratulation!



Miss Nur Sa'adah Abdul Halim (UM) received an award from YB Datuk Seri Haji Mohamad bin Sabu during Opening Ceremony of SOILS 2023

MSSS Education Awards

AWARD
&
ACKNOWLEDGEMENT

Four excellence students from the primary and secondary schools in Perlis were selected to receive the MSSS Education Awards during the opening ceremony of the International Soil Science Conference (SOILS 2023) on May 9th, 2023, at the Seri Malaysia Kangar Hotel, Perlis.

The students were:

1. Kelly Chen Xin Yee (Sekolah Menengah Kebangsaan Derma)
2. Nur Syasya Binti Nor Azmil (Sekolah Menengah Kebangsaan Agama (P) Alawiyah)
3. Muhammad Umar Rayyan Bin Rushafizal (Sekolah Kebangsaan Institut Pendidikan Guru Malaysia)
4. Tey Yi Ern (Sekolah Jenis Kebangsaan (C) Sin Min)

We extend our heartfelt congratulations to all students. Good luck in the future!



The students received an award from YB Datuk Seri Haji Mohamad during Opening Ceremony of SOILS 2023

UPCOMING EVENTS

FIRST ANNOUNCEMENT

Jointly Organised by:



SOILS 2024

INTERNATIONAL SOIL SCIENCE CONFERENCE 2024

"Cultivating Earth's Future: Nurturing Soil Health for Sustainable Agriculture"

14 - 16 MAY 2024

SWISS-BELHOTEL, KUANTAN, PAHANG



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Type of Participant	Early Bird (Before 1 st February 2024)		Normal Rate	
	Local	International	Local	International
MSSS member	RM 700	USD 200	RM 800	USD 250
Non - MSSS member	RM 800	USD 250	RM 900	USD 300
Students	RM 500	USD 150	RM 550	USD 180

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- Soil Nutrients and Fertility
- Soil and Environmental Impact
- Soil Physics and Water Management
- Forest and Plantation Soil Management

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<https://conference.iium.edu.my/SOILS2024/>

2024soils@gmail.com



YOU'RE INVITED!

SOILS2024 will be organised on the 14–16 of May 2024 at Swiss-Belhotel, Kuantan, Pahang. Join us as participants (oral or poster presenter) and extend the research network among researchers inside or outside Malaysia!

International Union of Soil Sciences (IUSS)

WHY JOIN THE IUSS?



International Union of Soil Sciences®

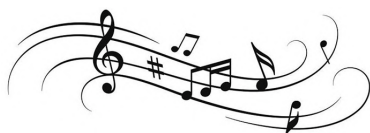
The International Union of Soil Sciences (IUSS) is the global union of soil scientists. The objectives of the IUSS are to foster all branches of the soil sciences and their applications, and to give support to soil scientists in the pursuit of their activities. In addition, the IUSS aims to put soils and soil science on the global agenda. Annual subscriptions from National Soil Science Societies, either directly or indirectly via National Academies, are essential for maintaining a strong presence of the IUSS for effective promotion of soil science and its wide range of applications to fellow professionals, policy and decision makers, and the general public. This is critical to keep our discipline strong and viable and to enhance its visibility and impact in all parts of the world.

The IUSS is the umbrella organisation for six important regional societies, one in Asia (the “East and South East Asian Confederation of Soil Science Societies”), three in Africa (the “African Soil Science Society”, the “East African Soil Science Society”, and the “West and Central African Soil Science Society”), one in Latin America (the “Latin American Society of Soil Science Societies”), and one in Europe (the “European Confederation of Soil Science Societies”). All these regional organisations act under the umbrella of IUSS and have specific tasks for promoting soil science.

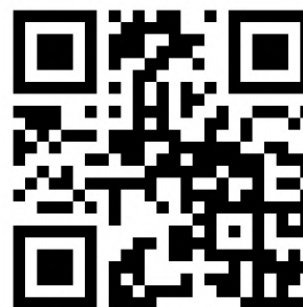
Source: <https://www.iuss.org/about-the-iuss/why-join-the-iuss/>

The IUSS song

It is our life! We call it soil
It is the stuff, in which we toil
From soil we've sprung, to soil we'll go
Protect the soil of this earth so we can grow



IUSS webpage - Scan Me!



MSSS Membership

Membership is open to all professionals and graduate students, within and outside Malaysia. The membership fee is either:

- (1) **RM50.00** per year for ordinary membership, or
- (2) **RM400.00** for life membership (one time payment for life)

Membership form - Scan Me!



<http://www.msss.com.my/Application.pdf>



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1142	Nicodemus Ujih anak Michael Brenden
1143	Kevin Dinggun anak Kanang
1144	Agusten Rabar anak Ajok
1145	Chesles anak Merikan

Mail to us the completed form at:

**Honorary Secretary,
Malaysian Society of Soil Science,
Department of Land Management,
Faculty of Agriculture,
43400 UPM Serdang, Selangor, Malaysia**

All payment should be made payable to:

**THE MALAYSIAN SOCIETY OF SOIL SCIENCE
(CIMB Bank Berhad)
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**Please contact us to confirm or email your receipt/
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Soil Joke 

ISC135-TS

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"We're taking soil samples today ...
in other words, FIELD TRIP!"

MJSS - CALL FOR PAPERS

The Malaysian Journal of Soil Science (MJSS) is a scientific journal published by the Malaysian Society of Soil Science (MSSS). It contains research papers in English on matters related to soil and soil-plant interactions. The journal welcomes original research works not previously or simultaneously published in any other scientific or technical journal from MSSS members as well as other scientists in Malaysia and abroad. The aim of the journal is to promote the development of soil science in Malaysia, other tropical and subtropical regions. MJSS is a peer-reviewed, fully open access journal, is now indexed by Scopus and published annually. Instruction for authors and other details are available on our website <http://www.msss.com.my/journals/instruct.php>



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SOIL RELATED ISSUES

GENERAL ARTICLES: If you have a story/report about an activity related to soil, such as soil training/workshop/conference/meetings;

YOUNG SCIENTISTS: If you are currently a young soil scientist (below 40 years of age) working on a research project related to soil dynamics, you may send in your research article about 500 to 600 words which states on the intro, justification, brief methods, results and conclusion. Please include a digital copy of your research image.

THE EASTERN CONNECTION: Dedicated for any soil research endeavors and information from Sabah and Sarawak.

ANNOUNCEMENTS: Of trainings or educational opportunities, forthcoming meetings, conferences or other international announcement regarding soil, agriculture, forestry, etc.

BOOK/PAPER REVIEW: If you have come across a recently published article you think may be of interest to other MSSS members, please alert the Newsletter Editor and we will highlight it for our readers.

MSSS Publications for Sale!

Title	RM	
	Members	Non-Member
Proceedings of Soil Science Conference of Malaysia 2005 (Kedah)	45	60
Proceedings of Soil Science Conference of Malaysia 2004 (Pulau Pinang)	45	60
Proceedings of Soil Science Conference of Malaysia 2003 (Kota Bharu, Kelantan)	45	60
Proceedings of Soil Science Conference of Malaysia 2002 (Kangar, Perlis)	45	60
Proceedings of Soil Science Conference of Malaysia 2001 (Kota Kinabalu, Sabah)	45	60
Proceedings of Soil Science Conference of Malaysia 2000 (Johor Bharu)	45	60
Malaysian Taxonomy (2nd approximation) - S. Paramanathan	20	25
Soil Science Toward the Year 2020	15	20
National Seminar on Progress in Soil, Plant and Fertilizer Analysis in Malaysia, 1993	30	35
Proceedings of International Conference on Fertilizer Usage in the Tropics (FERTROP), 1992	60	70
Developments in Soil Research in Malaysia, 1991	25	35
Proceedings of Seminar on Soil Management for Food and Fruit Crops, 1991	25	39
Proceedings of Workshop on Recent Developments in Soil Genesis and Classification, 1990	25	30
National Seminar on Land Evaluation and Development, 1990	30	35
Workshop on Phosphate Sources for Acid Soils in the Humic Tropics of Asia, 1990	30	35
National Seminar on Secondary and Micro Nutrient in Malaysian Agriculture, 1988	20	25
Proceedings of International Symposium on Urea Technology and Utilisation (Urea-Tech), 1987	50	80
Proceedings National Seminar on Recent Advances on Soil and Water Management in Malaysian Agriculture, 1986	18	25
Proceedings of Conference on Soil Climate Relationship on Crop Production in Malaysia, 1985	18	25
Proceedings of International Conference on Soils and Nutrition of Perennial Crops, 1985	55	75
Proceedings of Seminar on Fertilizer in Malaysian Soils, 1983	18	25
Proceedings of Seminar on Land Application of Palm Oil and Rubber Factory Effluents, 1983	20	30
Proceedings of Seminar on Nitrogen in Malaysian Soils, 1982	18	25
Proceedings of Seminar on Management of tropical Soils, 1981	18	25
Bibliography of Malaysian Soils, 1981	4	5