

IUSS Bulletin

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2015-2024
International
Decade of Soils



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International Union of Soil Sciences (IUSS)

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sisting of cash prizes were given to the winner. In the prize giving ceremony, Associate Professor Dr Nurhayati Zainal Abidin, ISB's Head of Department presented the prizes to the winners. In the men category, the winners were Abdul Aziz Mahamod, Mohd Harmini, Mitsuhiro Koike, G Sivaneshwaran and Soh Wai Ching and for the women category, the winners were Darshiny, Sara Joy, Aini Aida, Esther Joy and Danielle for 5th, 4th, 3rd, 2nd and 1st place respectively. Hopefully, from various activities and exposures, participants will better understand the importance of soil. We would like to express our gratitude to the committee involved in this program, especially MSSS members and ISB family and also sponsors who supported this event.

Agro Fun Run 2017

By Dr. Wan Zaliha Wan Sembok, MSSS Auditor, UMT

Agro Fun Run 2017 is a 4 km run with the concept of sustainable green earth and will become an annual event for the School of Food Science and Technology, University Malaysia Terengganu (PPSTM, UMT). This event was a collaborative effort between Agrotech Income Committee from PPSTM, Hevotech Club UMT and Malaysian Society of Soil Sciences that was held on 28th October 2017 in UMT. This program gives an opportunity for UMT's students to understand the importance of sustainable agri-

During the 5km run, each runner had five tasks to be completed at five checkpoints including identifying soil types according to soil series, meddling with worms, identifying trees according to their suitable soil type, transplanting seeds into pots and carrying the sapling to the finishing line. A total of 10 prizes, 5 for each men and women con-



Picture from the Soil Fun Run 2017 Gallery.

culture for next generation and show their care for earth. The objective of this event is to provide an exposure of informal education especially in agriculture and to enhance the cooperation among professionals, supporting members as well as UMT students. The program commenced at 7.30 am with stretching and briefing session. The flag off session was completed by YBhg. Dr. Hayati Yusof, Deputy Dean of Research and Talent PPSTM.

Along the 4km run, some activities and tasks must be completed by the participants which was collecting the polybag provided at the first checkpoint, continued by filling up the polybag with soil and ended with planting one sapling (roselle, mulberry, hibiscus or bougainvillea) in the polybag. This program gathered 266 people, which was double the amount expected.

Participants include 12 lectures, 15 committee members and students. The program ended at 11.00 am with lucky draw session and the collection of finisher medal for participants. From the feedback obtained, most of the participants were excited and looking forward for this program in future. Besides from gaining an informal knowledge on farming, participant also explored new things while taking part in this sport.

The three articles above are taken from the Newsletter of the Malaysian Soil Science Society, no. 3, December 2017.

Read more:

https://www.iuss.org/index.php?article_id=681

Guide to Healthy Soils Workshop

By Christopher Teh Boon Song, CBS Teh

A workshop entitled, 'Guide to Healthy Soils' was held on 3 and 4 Feb 2018 at the Dept. of Land Management, Faculty of Agriculture, Uni. Putra Malaysia, Serdang. This workshop was developed specifically for urban gardeners, farming hobbyists, farmers, or land owners with little or no background in soil science. The only criterion is they must have a keen interest in urban gardening or farming! This workshop was organized by the Faculty of Agriculture, the Malaysian Soil Science Society, and Eats, Shoots and Roots Sdn, Bhd. A total of 28 participants had registered for this workshop.

During this two-day workshop, participants were taught on a wide range of topics, so that at the end of the workshop, they were able to answer questions such as:

What makes a healthy soil?

- Are all soils the same? The soil chemical and physical properties that make up a soil.
- What are the important plant nutrients, and how do I know their availability in my soil?
- How important is soil organic matter?
- What is the difference between compost and mulch, and should I use them?

Fertilizing my plants

- What are the differences between the various fertilizer types (organics vs synthetics)?



Participants, lecturers, and helpers of the workshop

- I have a land, so what soil elements should I have tested, and how do I interpret the soil tests results?
- How much fertilizer should I apply?
- Is watering my plants with rice water any good?
- Signs of plant problems: fruit or flower abortion, leaf drops, and nutrient deficiencies

Watering my plants

- How do soils store water?
- How much should I water my plants?
- What are the different irrigation types and what are their advantages and drawbacks?

The participants also received hands-on experience on: 1) preparing soil media, 2) making compost, 3) interpreting soil test results, 4) fertilizer calculations, and 5) preparing a wick irrigation system.

Lecturers involved in the workshop instruction were Dr. Christopher Teh Boon Sung, Dr. Tan Ngai

Paing, and Dr. Ali Tan. These three lecturers are from UPM. We are happy to report that at the end of the workshop, participants provided written as well as verbal feedback that they enjoyed the workshop and found the workshop very helpful, and some even asking for a sequel workshop!



Participants trying their hand on aerobic compost making



Dr Christopher Teh Boon Sung explaining about the differences in physical and chemical properties of three soil types commonly found in the campus area



Participants preparing their potting mix media



Group photo of workshop participants in the lab

Soils in Landscapes of the World – 2018 Calendar

This 2018 Calendar showing Soils in Landscapes of the World was designed in the Department of Soil Science and Landscape Management, Faculty of Earth Sciences, Nicolaus Copernicus University in Toruń, Poland, to celebrate 2018 as the next year of the FAO UNESCO International Decade of Soils (2015-2024) and also the 100 anniversary of the Polish Geographical Society (1918-2018). Authors of the photos: Marcin Switoniak (tundra and mountain landscapes) and Michal Jankowski (others).

Read more: http://iuss.boku.ac.at/files/calendar_2018_-_soils_300dpi.jpg

Field research: discovering the structure of soil

By Barbara Birli, Jane Mills, Francesco Morari

Get your hands dirty with these classroom experiments exploring the composition of soil – and find out why this matters.

Soil is essential for life on this planet. Without it, we could not grow the food we need to live. What's perhaps less well known is that soil has other important functions, too, such as filtering our water, storing it to help prevent flooding and droughts, and providing a habitat for a third of the world's biodiversity – most of which we still know very little about. Soils also have a large impact on climate change, as they can store large amounts of organic carbon and are the most important terrestrial sink for carbon dioxide (Janzen, 2004).

For most students, particularly those who live in cities, the world below their feet remains unknown. To remedy this, we developed a two-part activity to help students to gain insights into the role that soil structure and its organic matter content has for all of us.

Read more: <http://www.scienceinschool.org/content/field-research-discovering-structure-soil>

IUSS at EGU 2018

The EGU General Assembly 2018 (EGU2018) took place 08-13 Apr 2018 in Vienna, Austria.

Following the Short Course 'International Decade of Soils: Ideas for outreach activities' during EGU 2017, in which ongoing activities carried out by soil science societies were presented which were to give rise to further activities as well as creating new ideas for the future, IUSS was involved in the organisation of ses-

sion SSS1.3/EOS5 *Soil Science education, outreach and your favourite soil maps* (co-organized). This session welcomed all perspectives on teaching soil science from school level to continuing professional development in non-academic settings. Contributions were sought that move away from concepts and methods for teaching soil science within traditional disciplines (chemistry, biology, physics) to those that use soil systems approaches. Innovative methods from the field, classroom and laboratory were invited from anyone working with soil science education across varied settings. The conveners also welcomed demonstrations of novel approaches for soil science outreach and public engagement that involve scientists and non-scientists. Examples that also measure the effectiveness of educational and outreach activities were especially welcome. This session was one of the IUSS activities under the umbrella of the International Decade of Soils 2015-2024.

Deadline for abstract submission was 10 January 2018. Finally 27 abstracts were received including those from two other proposed sessions and IUSS would like to thank all authors for their contributions. Read more: <https://egu2018.eu/>

3rd Olympiad in Soil Science for School Students in Tbilisi/Georgia

Another activity worth mentioning is the 3rd Olympiad in Soil Science for School Students held in Tbilisi/Georgia on the 27th of April, 2018. 15 schools and about 70 school students participated in this competition.

The three-fold goal of the Olympiad, namely making Natural Sciences (especially Soil Science) popular among school students, creating an understanding of agrarian disciplines and encouraging students to care about ecology and a safe environment, was more than achieved. May this Olympiad stimulate other Soil Science Societies to follow this excellent example!

For details the reader is referred to the following section 'Conference and Meeting Reports'.



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