16th Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

Item 4b
Soil Fertility Working Group

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28, 29 and 30 March 2022 | Virtual meeting
The Global Symposium on Soils for Nutrition (GSOIL4N)

Aims to:
review the state of the art on the role of soil fertility in delivering sufficient, high quality, safe, and more nutritious food for better nourished plants, animals, and people.

It is expected to:
review the state of the art on the role of soil fertility in delivering sufficient, high quality, safe, and more nutritious food for better nourished plants, animals, and people.

Virtual format

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## The four themes of the GSOIL4N

<table>
<thead>
<tr>
<th>Theme</th>
<th>Key Points</th>
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<tr>
<td><strong>1 Status and trends of global soil nutrient budget;</strong></td>
<td>- Assessing, mapping and monitoring soil nutrients</td>
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<td><strong>Soil nutrients for production</strong></td>
<td>- Applications of soil fertility data/information for decision making</td>
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<td>- State of the art on the availability of soil nutrients/fertilizers</td>
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<td><strong>2 Sustainable soil management for food security and better nutrition</strong></td>
<td>- Nutrition sensitive agriculture</td>
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<td>- Innovations on sustainable soil management and soil fertility</td>
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<td>- Soil micronutrients and human health</td>
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<td><strong>3 Impacts of soil nutrient management on the Environment and climate change</strong></td>
<td>- Status of soil, water, and air pollution derived from the overuse or misuse of fertilizers</td>
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<td>- The role of fertilizers on climate change</td>
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<td>- Fertilizers quality and its role in food safety and pollution</td>
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<td><strong>4 Governance of soil fertility/soil nutrients</strong></td>
<td>- Policies to improving soil fertility by SSM.</td>
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<td>- Implementation of normative tools- Code Fertilizers</td>
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<td>- Gender sensitive tools and methods in fertilization programmes</td>
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Call for abstracts

The Global Soil Partnership
Newsletter No. 35 | March 2022

SOILS FOR NUTRITION SYMPOSIUM: CALL FOR ABSTRACTS
26-29 July 2022 | 12:00-15:00 CEST | Virtual

What is the state of soil fertility? What kind of data is available for practitioners? What is the relation between soil fertility and human nutrition? The Global Symposium on Soils for Nutrition will answer this and other questions! Submit your abstracts to compete for oral and poster presentations by 30 April 2022. Website and registration link available soon!

Title of the abstract
Please do not use capital letters for the entire title.

Main Author
Please use lowercase letters for the first name and capital letters for the family name(s).

Name
Surname
Institution
Country
Email Address

Other Authors
Please use the following format: Initials of Name, SURNAME (in capital letters), Institution (e.g., J. SMITH, University of London).
The Symposium will be held virtually over four days on July 26 - 29, 2022, with an expected participation of representatives from countries around the world.

Opening session
High-level speakers

Keynote speakers

Discussion panels

Parallel sessions and posters

Speakers from co-organizing institutions
Leading experts for setting the scene
Multisectorial to address the four themes and complement the scientific insight
Participants to address the four themes

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KEYNOTE SPEAKERS

Elliott Dossou Yovo
- Africa
- CGIAR- Africa Rice Center (Africarice)
- Climate change and agriculture specialist
  - Highlight: 2021 recipient of the Norman E. Borlaug Award for Field Research and Application, Endowed by The Rockefeller Foundation.
- Themes: 2 nutrition and 3 environment

Johan Rockström
- Sweden
- Stockholm Resilience Centre
- Professor Global sustainable development
  - Highlight: Author Planet boundaries paper, documentary Before the Flood and Netflix.
- Theme 3 environment

Fusuo Zhang
- China
- China Agricultural University
- Dean of the School of Agriculture Green Development
  - Highlight: President of the National Academy of Agriculture Green Development
- Themes 1 production and 2 nutrition

Ismail Cakmak
- Turkey
- Sabanci University
- Professor micronutrient expert.
- Theme 2 nutrition

For action: nominate more candidates
Online database
Key points to consider: Regional, gender, expertise and age balance.

Data base with candidates

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DISCUSSION PANELS

Soil fertility from different perspectives

Multisectorial
Participation of different stakeholders: government, industry, and farmers.

Complement the scientific insight
to articulate the priorities and needs of the governments, and productive and industry sectors with the academia. in the corresponding topic for each day,

Address the 4 themes
Discussion panels each day after the keynote speaker presentations and before the parallel sessions

PARALLEL SESSIONS AND POSTERS

PRESENTATIONS AND POSTER EXHIBITION

Participants from different countries presenting their contributions. Simultaneous sessions addressing the 4 symposium themes.

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Scientific Committee activities

Abstracts and other activities

1. Selection of keynote speakers
2. Reception, review, and selection of abstracts
3. Planning of discussion panels, parallel sessions, poster and oral participations
4. Support side activities review: photo contest nutrient deficiencies in plants and animals, pollution

Documents review and Publications

5. Review of the GSOIL4N Booklet
6. Development and review of the Outcome Document
7. Development and review of the Symposium Proceedings

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National Survey on the Use and Management of Fertilizers: developed and translated in the six FAO languages

Launched in December 2021 in six languages with the goal to define priority areas for The Fertilizer Code implementation, gaps and main obstacles to sustainable fertilizer management in the participant countries.
More than 150 participants from 60 countries responded to the survey which will support the action plan for the implementation of The Fertilizer Code.
Content:
Present the three main issues related to fertilizer use and management across world:

- Underuse
- Overuse
- Misuse
- The consequences
- The solutions

https://www.youtube.com/watch?v=MlLrme8hYQQ
Project progress of Capacity Building on Sustainable Soil Management For Africa

South South Cooperation Assistance Fund

1.1 Provided equipment for efficient laboratory soil testing and for efficient fertilizer testing (delivered 7 items)

1.2 Supported staff in performing soil sampling, collection, and analysis, as well as on fertilizer use and recommendations on site. (collected 1000 soil samples)

1.3 Conducted fertilizer quality assessment. (collected 200 fertilizer samples)

1.4 Conducted field experiments and demonstrations of fertilizer use to evaluate the effects of fertilization on crop yields. (conducted 7 field experiments)

1.5 Established a fertilizer service. (finished survey and literature review)

2.1 Develop courses (EduSOILS platform) (developed soil mapping course)

2.2 Establish EduSOILS (EduSOILS) (established EduSoils platform)

16th Working Sessions
Sustainable soil management for nutrition-sensitive agriculture in sub-Saharan Africa and Southeast Asia:

- Field trials results
- Literature review
- Technical guidelines

BANGLADESH
Rice, mung bean, cauliflower, cabbage

BURKINA FASO
Sorghum, cowpea

MALAWI
Maize, soybean, amaranth
Global soil nutrient budget

Nutrients inputs:
- Synthetic and mineral fertilizers
- Organic inputs
- Atmospheric inputs
- Other

Nutrient outputs:
- Crop harvest
- Erosion
- Fluxes
- Leaching

Participatory process:
- Country-driven
- Working group: ITPS + GSP + Experts

NPK
Micronutrients
International Network on Fertilizer Análisis (INFA)

“Investing in harmonized fertilizer quality assessments for sustainable soil management”

Second Meeting: June, 2021:
• The objectives and indicators of performance for the network were endorsed
• Governance:
  • Chair: Dr. Wesley Feldmann (Malawi)
  • Vice-Chair: Dr. Gerardo Ojeda (Colombia)

Third Meeting: October 2022.
INFA articulation with GLOSOLAN

1. **Harmonization of protocols and methodologies for fertilizers analysis**
   
   All initial work to be carried out on mineral/synthetic fertilizers, as this is what most of the network needs to be able to test for initially. The WG-1 will be sub-divided into three groups:
   
   - **WG-1a**: Nitrogen
   - **WG-1b**: Potassium
   - **WG-1c**: Phosphorus

2. **Capacity Building/Strengthening**
   
   The initial focus should be on laboratory support to ensure that laboratories operate in the correct way to obtain the best results for Working Group 1. Priorities for documents and associated videos: (can potentially have one sub-group for each topic, so 3 sub-groups similarly to WG 1)
   
   - **WG-2a**: Sample Preparation (for laboratory analysis)
   - **WG-2b**: Quality Assurance
   - **WG-2c**: Fertilizer testing instrumentation

3. **Governance, Policy and Regulation**
   
   This WG will perform an information-gathering exercise initially, and it is suggested to be closely monitored by a member of INFA per country to ensure the information is accurate.
   
   - **WG-3**: Gather information for each of the INFA member countries' regulations relating to fertilizer quality.

Support for the implementation of INFA Working Groups activities

- **Database template for SOP’s harmonization**
- **Guidance on video training development**
- **Support to develop a survey for gathering fertilizer regulations**
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