Launch of the International Network on Soil Fertility and Fertilizers-formerly INFA

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7th Meeting of the Global Soil Laboratory Network (GLOSOLAN)
Launch of the International Network on Soil Fertility and Fertilizers (INSOILFER)

17th July 2023
13:00 - 14:30 CEST

Online Meeting

GOALS:

- Adoption and implementation of sustainable and balanced soil fertility management.
- Over 1200 registered participants.
- Keynote speakers' presentations.
- Technical presentation introducing the network, outlining its objectives, and prioritizing activities.
- The recording of the INSOILFER launch, the event agenda, and the presentations are available on the website.
- Evaluation and improvement of the safety and quality of fertilizers.
- Promotion of the soils for nutrition policy at national and global levels.
- Avoidance of the underuse, misuse, and overuse of fertilizers.
- Reduction of the environmental and health impacts of unsustainable fertilizer use and soil management practices.
Why the network?

Fulfill the SDG’s

The society demands safer and more nutritious food

Food production without externalities derived from unsustainable crop practices

Soil nutrition and crop health hazards

7th Meeting of the Global Soil Partnership

Soil fertility management is directly and indirectly related with all these needs
The Recommendations of the Global Symposium on Soils for Nutrition

1. Map and monitor soil nutrients and soil fertility and deepen the knowledge about the soil nutrient budget.

2. Develop innovative approaches and alternative products to optimize soil nutrient content, enhance fertilizer use efficiency, and reduce externalities associated with soil fertility management.

3. Assess the quality and safety of all nutrient sources applied to soils to avoid or reduce environmental contamination and health problems.

Outcome Document

7th Meeting of the Global Soil Laboratory Network (GLOSOLAN) | 21-23 November 2023
The Recommendations of the Global Symposium on Soils for Nutrition

4. Advocate for **the adoption of SSM practices** since it still represents the most cost-effective solution to increase soil nutrient content.

5. Consider **driving forces** such as water availability, climate change, poverty and the fertilizer crisis and promote a “soils for nutrition” agenda.

6. Advocate for the inclusion of soil fertility and soil health in **the legal framework** of countries in relation to the One health approach, linking human nutrition, environmental health, and soil health.

Launch the International Network Soil Fertility and Fertilizers (INSOILFER) to address nutrient imbalances and promote the adoption of soils for nutrition concept for making soils healthy and fertile by 2030 as a contribution to the transformation of agrifood systems.

**Global Symposium on Soils for Nutrition**

26–29 July 2022

**7th Meeting of the Global Soil Laboratory Network (GLOSOLAN)** | 21-23 November 2023
Now...what is next?
Operability

- First meeting of the working groups
- Website construction
- Collaboration with other networks and institutions

7th Meeting of the Global Soil Laboratory Network (GLOSLAN) | 21-23 November
WG1 Meeting
Soil fertility and nutrient monitoring system

Day 1

WG2 Meeting
Sustainable soil fertility and fertilizer management

Day 2

WG3 Meeting
Fertilizer safety and quality assessment
Debriefing meeting

Day 3

7th Meeting of the Global Soil Laboratory Network (GSLN)

AGENDA

INSOILFER
Working Group Meetings

27-29 November 2023

Endorsement of goals and work plan
Governance: Chair, 3 Vice-Chairs
Technical Committees
Reference institutions
Potential collaborations and joint working groups
The membership of INSOILFER

### Regional balance
- Asia: 35%
- Europe and Asia: 8.3%
- Latin America and the Caribbean: 8.3%
- North Africa and Near East: 15%
- North America: 15%
- Pacific: 8.3%
- Sub-Saharan Africa: 26.7%

### Sector distribution
- Government: 17.5%
- Farmer or Farmer’s Organization: 20.9%
- Private sector: 20.4%
- Research Organization: 8.7%
- Intergovernmental Organization: 10.5%
- Educational Organization: 9.2%
- Civil Society Organization: 7.8%
- Non-Governmental Organization: 3.4%
- Advisory/Consultancy: 2.5%
- Self-employed/independent professional/freelancer/activist: 5.7%
- Student: 4.6%
- Other (specify): 4.6%

### WG distribution
- WG1: 29%
- WG2: 49%
- WG3+INFA: 22%
WG1. Soil fertility and nutrient monitoring system

**Improving the knowledge of the dynamics of the soil nutrient budget**
- Obtaining reliable, updated, and readily available information on soil nutrient dynamics.
- Key indicators for monitoring nutrient movement to serve as the basis for nutrient balance development and mapping

**Supporting the decision-making on soil nutrient management, nutrient budget, and climate change mitigation**
Soil nutrient and fertility monitoring systems, innovation development of tools for the monitoring and evaluation of soil fertility

**Promoting collective ownership, openness, and innovation in creating novel data-sourcing pipelines**
and analytical tools to make progress on the knowledge of soil fertility and fertilizers management.

**Motivations**
The formation of WG1 responds to recommendations of the GSOIL4N Outcome Document, including “Monitor soil nutrients and soil fertility and deepen the knowledge about the soil nutrient budget.”

Sustainable management and restoration of soil fertility requires a solid understanding of soil nutrient flows, stores, inputs and outputs, and the soil's physical, chemical and biological properties that regulate nutrient availability

**Potential collaborations**
- INSII
- ITPS-soil mapping and monitoring
- GLOSOLAN (harmonization of methods for indicators)
- INSOP- Fertilizers' impacts on environmental pollution
- NETSOB- Fertilizers impacts on biodiversity
**WG2. Soil fertility and fertilizer management**

Promote that sustainable soil management (SSM) and sustainable fertilization practices are widely known and disseminated at the farm scale, emphasizing innovations that optimize nutrient use efficiency.

- With particular emphasis on innovations that optimize nutrient use efficiency.
- Linked to human nutrition and soil health.

**Identification, compilation, and promotion of successful field-tested and calibrated soil management practices proven to increase fertility, crop nutrition, and crop yields in different types of soils, crops, and climates**

- Identification and promotion of practices that, in addition to maintaining yields and preserving soil fertility, are aimed at reducing greenhouse gases and atmospheric pollution, especially of water.

**Motivations**

Objectives respond to recommendation 4 of the GSOIL4N Outcome Document, which advocates for adopting SSM practices since they are the most cost-effective solutions to increase soil nutrient content and fertility.

There is no single solution to all soil fertility problems, but a portfolio of alternatives can be employed.

WG2 will direct its efforts towards developing and implementing a portfolio of solutions to avoid the underuse, misuse, and overuse of fertilizers, greenhouse gas emissions, and environmental pollution.

**Potential collaborations**

Soil Doctors Program
ITPS-fertility group
INSOP, NETSOB, INSAS, INBS
GLOSOLAN- harmonization of the soil test kit and field soil test and interpretation.
WG3. Fertilizer safety and quality assessment

Monitor and improve the quality and safety of organic and inorganic fertilizers, and other nutrient sources

INFA becomes WG3-INSOILFER

The International Network on Fertilizer Analysis (INFA) has become the WG3.

Harmonizing methodologies and protocols for the quality and safety assessment of organic and inorganic fertilizers

Quality and safety assessment of fertilizers and alternative nutrient sources: biofertilizers, biostimulants, recycled nutrient sources

Building and strengthening the national capacities of laboratories

Objectives respond to recommendation 7 of the GSOIL4N Outcome Document:
The quality of fertilizers and their bioavailability ensure that fertilizers and recycled nutrients comply with quality and safety standards.

Potential collaborations

INSOP, NETSOB, ITPS-Soil assessment and lab harmonization, GLOSOLAN
WG3 Activities

1. SOP’s harmonization
2. Capacity development
3. Policies and regulation
4. Collaborations

Organic and inorganic fertilizers

- Total nitrogen by the Kjeldahl method
- Total nitrogen by the combustion method
- Total Phosphorus - Acid digestion
- Total Potassium - Water-Soluble
- Sample preparation

INSOP
- Heavy metal SOP harmonization
- Permissible limits
- GLOSOLAN-Ring Tests

Customs procedures toward the Ring Test in 2024

If your laboratory performs fertilizer analysis, join INSOILFER!

7th Meeting of the Global Soil Laboratory Network (GLOSOLAN) | 21-23 November 2023
Thank you for your attention!

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