

NENA lab network during 2022

Development , Assessment, Needs
and the Way Forward

6th Meeting of the
**Global Soil
Laboratory
Network**
(GLOSOLAN)

Chair of NENA lab network: Riham Zahalan



GLOSOLAN
GLOBAL SOIL LABORATORY NETWORK



The last NENA meeting was held Virtually on , 12 - 13 October 2022

The third meeting of the Near East and North African Soil Laboratory Network (NENALAB) was held online on 12 and 13 October 2022. The meeting was attended by about one sixty-one laboratory staff members from seventeen NENA countries.

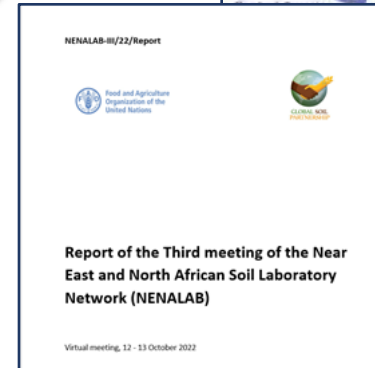
A fruitful discussion focused on the following topics:

☐ National Soil Laboratory Networks (NASOLANs) in NENA Countries.

ACTION	IMPLEMENTED BY
Step 1: Contact other soil laboratories in the country that already registered in GLOSOLAN	National Reference Laboratory
Step 2: Identify soil laboratories (university, private, public, etc.) that are not registered in GLOSOLAN yet and encourage them to join the network	National Reference Laboratory

14 soil labs : 10 in GCSAR, 1 in MAAR, 1 in ACSAD, 1 in MoE and 1 in GORS

3rd Meeting of the Near East and North African Laboratory Network (NENALAB) | 12-13 October 2022



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Step 1	Contact other soil laboratories in the country that already registered in GLOSOLAN	National Reference Laboratory
Step 2	Identify soil laboratories (university, private, public, etc.) that are not registered in GLOSOLAN yet and encourage them to join the network	National Reference Laboratory

- All NASOLAN members
- All NASOLAN members. However, it is recommended that the National Reference Laboratory makes contact with these groups
- National Reference Laboratory with the support of NASOLAN members
- All NASOLAN members under the leadership of the National Reference Laboratory
- According to NASOLAN work plan
- National Reference Laboratory with the support of NASOLAN members

6th Meeting of the Global Soil Laboratory Network (GLOSOLA)

❑ **Bridging the gap between soil laboratories and national governments**

This point focused on how to support the soil laboratories by understanding the methods and forms of support they receive, whether were governmental or private labs. The majority reported lack of support and the need to increase it, moreover the need to support the returns of lab technicians (training, financial, technical, etc.)

❑ **Harmonization of Standard Operating Procedures**

(SOPs)

- NENA members are contributed in several working groups for the harmonization of new SOPs, such as soil bulk density Bd and soil Gravimetric Moisture and others.
- Some of the produced SOPs were translated into Arabic, yet we will try to focus more on the translation of the rest, in order to increase the positive impact on the NENA region.

❑ **Interpretation of laboratory results and provision of recommendations to farmers**

- For ensuring a positive and deep impact of soil labs, result interpretation (importance and methods) were discussed with NENA members to highlight its role on helping farmers and stockholders working in agriculture and in direct contact with soil for the sustainable use

☐ NENALAB performance in the GLOSOLAN PT 2022

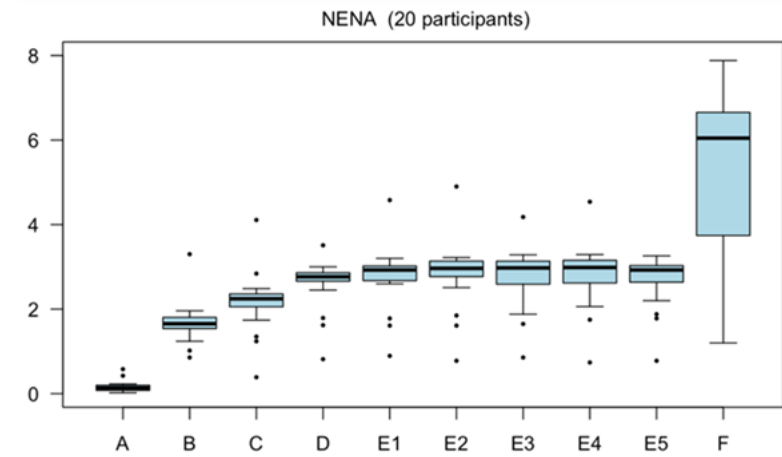


Figure 1 – Boxplots reporting the results collected from the NENALAB participants to the GLOSOLAN PT 2022 for soil organic matter by loss of ignition. Letters A-F correspond to the samples delivered to laboratories ordered from the lowest to the highest carbon content. Please note that the A-F order does not coincide with the order of samples' labelling (GLO-1, GLO-2, etc.). The y-axis report carbon content (percentage).

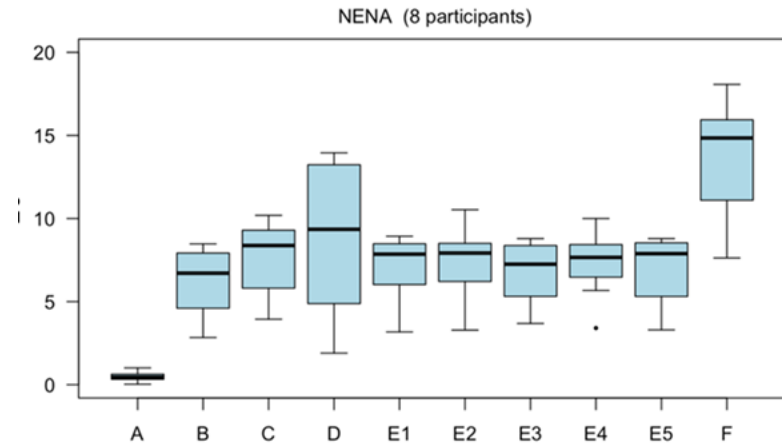
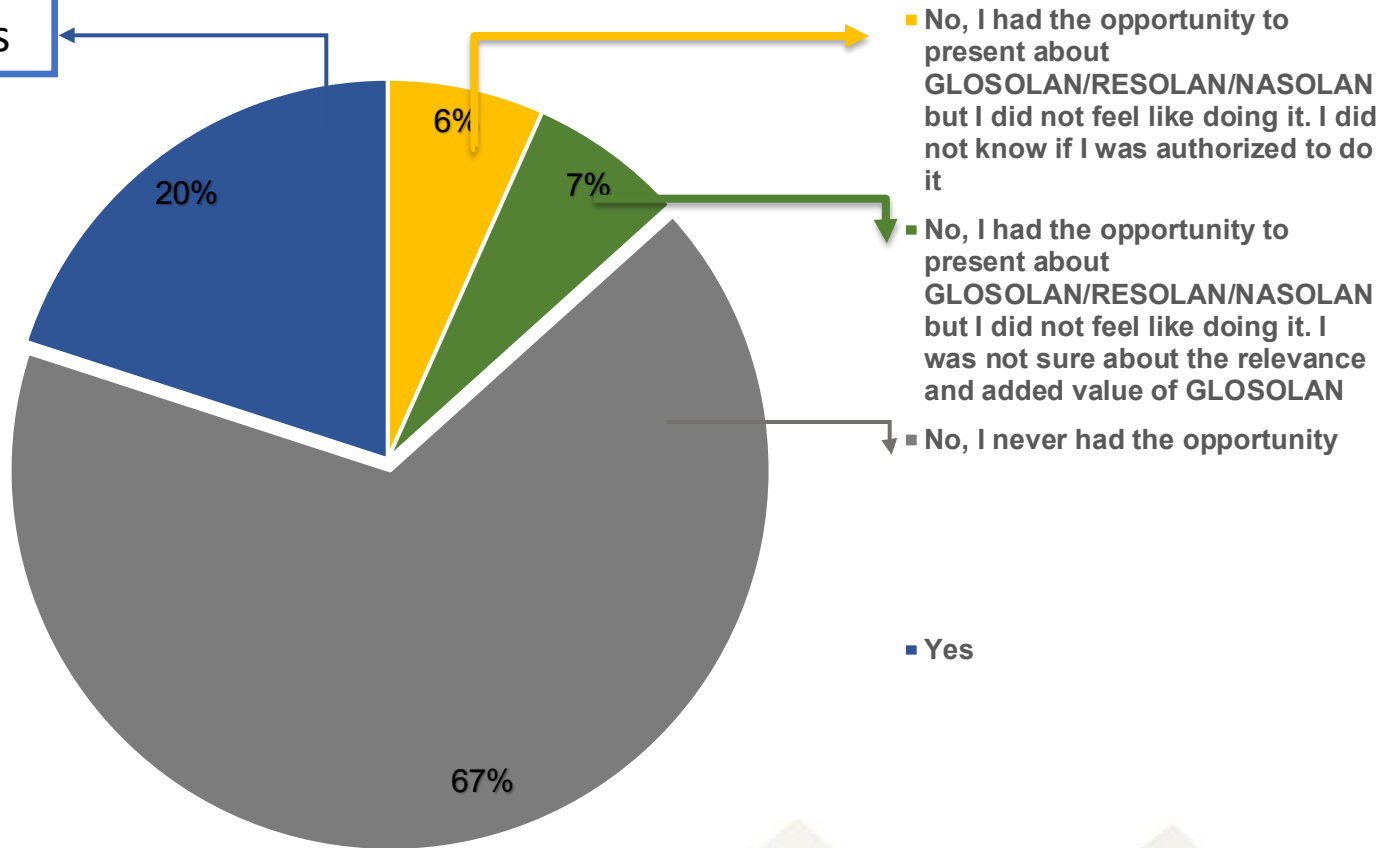


Figure 1 – Boxplots reporting the results collected from the NENALAB participants to the GLOSOLAN PT 2022 for soil organic carbon using the GLOSOLAN SOP for Walkley and Black method. Letters A-F correspond to the samples delivered to laboratories ordered from the lowest to the highest carbon content. Please note that the A-F order does not coincide with the order of samples' labelling (GLO-1, GLO-2, etc.). The y-axis report carbon content (percentage).

1

Have you ever advertised GLOSOLAN and RESOLANs/NASOLANs at international meetings/conferences?

Yes



Have you ever discussed GLOSOLAN and RESOLANs/NASOLANs in articles published on national and/or international journals?

Role of Organic Amendments in Building Soil Organic Carbon

Riham F.Zahalan⁽¹⁾, Ahmad S. Muhaimed⁽²⁾, Muhammad Manhal Al-Zoubi⁽³⁾

⁽¹⁾ Head of Soil maintenance and reclamation department- General Commission for Scientific Agricultural Research-GCSAR.
⁽²⁾ Head of Land management and water resources department- General Commission for Scientific Agricultural Research-GCSAR.
⁽³⁾ Head of Administration of Natural Resources department- General Commission for Scientific Agricultural Research-GCSAR.

A field experiment was conducted in the General Commission for Scientific Agricultural Research, Swaida Governorate- over the period of 2019-2020 to study the effect of adding different levels of organic amendments on some soil physical properties (20 cm) and to preserve changes after stop adding clay soil.

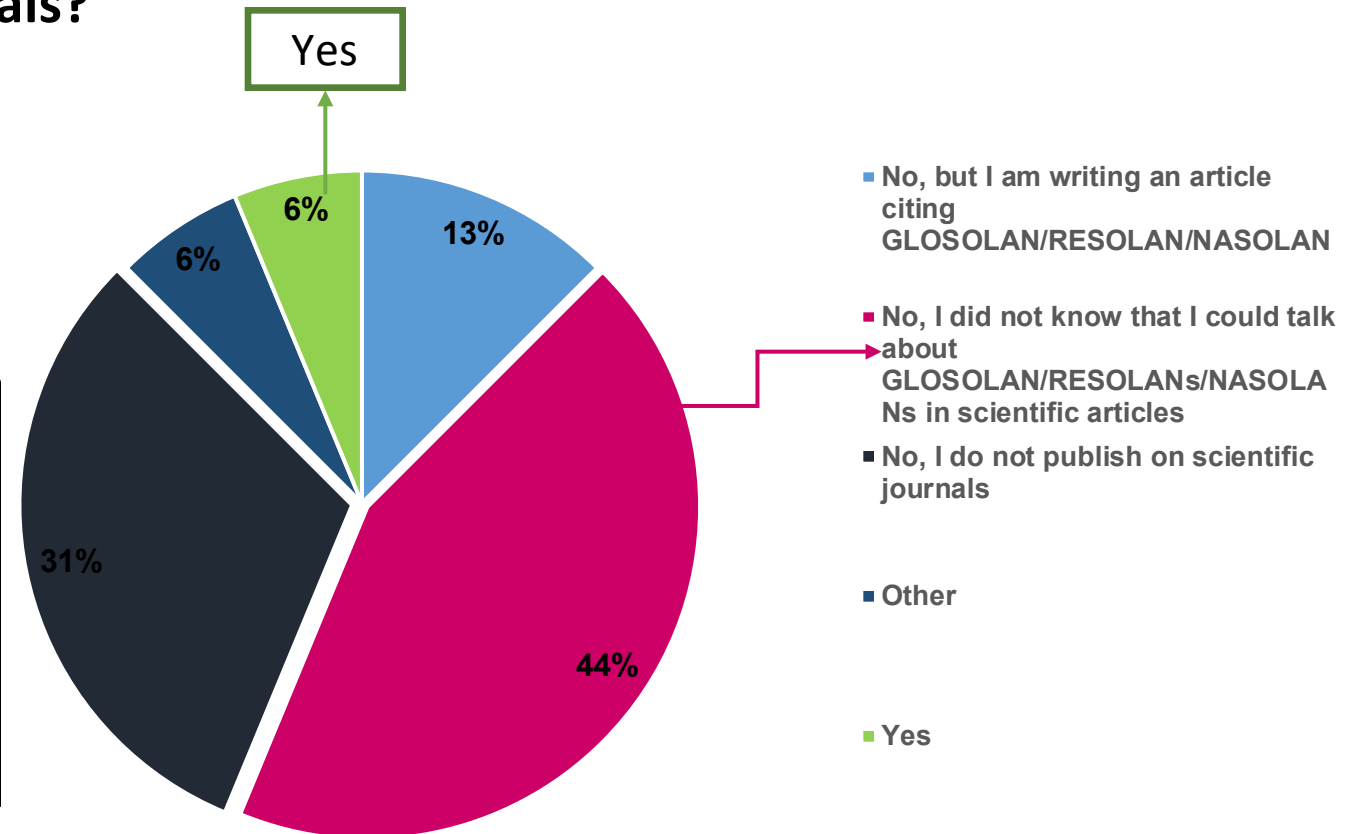
The results showed several changes in soil physical properties although the treatment (T1; the highest level of organic compost was the best on all studied properties).

Introduction

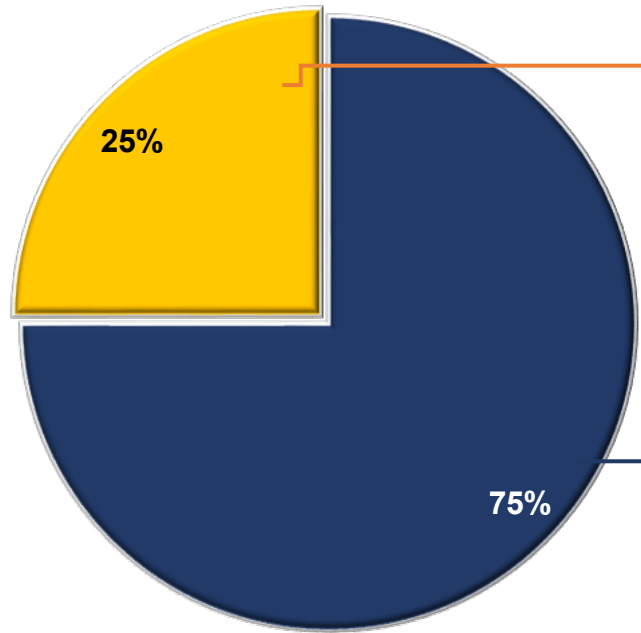
The recent researches addressed strong challenges facing the conventional agriculture, which has been depending on mineral fertilizers, with many negative impacts on the environment and low capacity to build a sustainable agriculture (Voltr *et al.*, 2021). At the same time, the term " soil health" has become among the most used and discussed issues during the last decades, after the dangerous threats emerged from the unwise human , industrial and agricultural use of soil all over the world.

The global soil partnership-FAO has adopted this term and specified a group of soil properties, which are strongly related to soil health, and consider them the most important and the ones to start working on. In addition to start raising the awareness of soil health in order to achieve a sustainable use of our soil. SOC was on the head of that list due to its importance and effect on soil properties and finally the soil productive capacity as a source of human food and life for a great deal of population.

Nevertheless, what is the soil organic carbon- SOC? Why it is important to build the soil content of organic carbon (OC)?

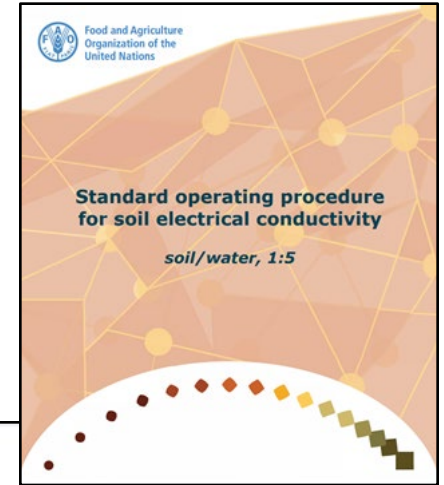


3 Are technicians at your laboratory informed on GLOSOLAN activities?



■ Yes, laboratory technicians are informed about GLOSOLAN but we do not organize any internal, special meeting on it. Information are spread by voice or email.

■ Yes, we organize regular internal meetings on GLOSOLAN to inform technicians on the new publications of the network and its latest training and job opportunities



Dr-Riham F Zahalan
June 20

للزملاء والمهتمين...
تقيم الشراكة العالمية للتربة GSP غدا الساعة ١٢ صباحا..تدريباً حول الأمن والسلامة المخبرية افتراضياً
منصة ZOOM باللغة العربية.
تجدون في الأسفل رابط التدريب :
[fao.zoom.us/.../71AkcOusrDMuE9ysY1WUokg5iXCMYEAAGC1W](https://fao.zoom.us/j/71AkcOusrDMuE9ysY1WUokg5iXCMYEAAGC1W)
أتمنى للجميع الفائدة ومشاركة الرابط حتى تعم الفائدة.

FAO.ZOOM.US
Welcome! You are invited to join a meeting: GLOSOLAN training on laboratory's health and safety - رة...
The aim of this webinar is to generate awareness and build the capacity of laboratory technicians and managers to assess and prevent risks related to the use of equipment and reagents in soil analysis. The lecturers will brief...



NENALAB governance

participants elected their representatives for the period 2023-2025:

- **Chair: Ms. Riham Zahalan (Syria)**
- **Vice-Chair for the Near East: Yara Khairallah (Lebanon)**
- **Vice-Chair for North Africa: Mr. Abdelmjid Zouahri (Morocco)**



6th Meeting of the **Global Soil Laboratory Network (GLOSOLAN)** | 22-24 November 2022





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**Thanks and looking for
your support to achieve
more in the future**

