Template for reporting the Global Soil Laboratory Network standard operating procedures
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Global Soil Laboratory Network
GLOSOLAN

Title of the standard operating procedure

For already developed SOPs that are periodically reviewed and changed when necessary.

Date of the revision

Specifics on the actions taken on the SOP

#GLOSOLAN meeting that approved the SOP

Date of the GLOSOLAN meeting

Modify by

Revision

Approved date

Validated date
Description of contents

1. Brief introduction to the topic

This section aims to explain why measuring a specific soil parameter is important. It should contain a background describing the function the parameter delivers to the environment or agricultural system, its abundance or expected ranges.

2. Scope and field of application

This section aims to delimit the application of the method. For which grounds, crops, etc. is this method applicable? Any caveats that would influence the interpretation of the results. The purpose of the measurement.

3. Principle

This section aims to provide more information on the results of the analysis. What does this SOP really measure? A summary of the method and the underpinning chemistry and principles.

4. Apparatus

This section aims to provide detailed information on the apparatus needed to implement the SOP. It is very important to list every piece of equipment (50 ml beaker, glass rod, boiling stones...) and exact specification of equipment (e.g. digestion apparatus 360 +/- 15 deg. C). The user should find all the necessary equipment on the list to check if he has all he needs.

5. Materials

This section aims to provide detailed information on all the materials needed to implement the SOP. It is very important to list every raw material like salts, acids, etc. as well as the solutions to be used and the required quality. The description of how these solutions are to be prepared should be included in this section.

6. Health and safety

This section aims to ensure that the SOP is implemented in security safe manner. It is recommended to describe here shortly the risks of the chemicals used and also to wear lab coats and safety glasses. A reference to the SOP on hazardous waste management should be included in this section.

7. Sample preparation

This section refers to the preparation of the sample to the analysis. It is different from the sample pre-treatment, which describes how to prepare the sample before going to the lab. A reference to the SOP on sample pre-treatment should be included to this section.

8. Procedure

This section should explain clearly step by step the analytical procedure of the method

9. Calculation

This section should describe and explain all calculations to be performed during the analysis as well as how results should be reported.
10. Quality assurance / quality control

This section aims to guide lab staff towards the use of accuracy, precision and quality control charts. All the checks to perform (1st, 2nd, 3rd line checks) should be mentioned and described in here.

11. Reference documents (if any)

This section aims to provide references for tracing the method(s) used in the GLOSOLAN SOP

12. Appendixes as needed

For example, results of inter-laboratory comparison, explanatory flowcharts and/or additional explanations that are too long for the point-to-point instructions

One Appendix should be dedicated to the acknowledgments, the list of authors (name, last name and affiliation of those that contributed to write or review the SOP and that will ultimately take responsibility of it) and the list of contributing laboratories.