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October 20nd 2024

PROFICIENCY TESTING PT.UA.11.4.2023
ORGANIC FERTILIZERS. (QUALITY)
PROFICIENCY TESTING PROGRAMME
– ROUND 2

Kyiv-2024

1. INTRODUCTION

Given the key role of reliable test results that are needed when determining physical and chemical properties of organic fertilizers, requirements for the competence of laboratories that perform such tests should be confirmed.

The purpose of proficiency testing in the determination of the organic fertilizers is to demonstrate the laboratory's competence (as described in ISO/IEC 17043:2023[1]) and improve the reliability of test results.

This proficiency testing involves the use of inter-laboratory comparisons to confirm the performance of individual laboratories' abilities and/or identify areas of improvement.

The functioning management system Metrology Service Ltd. (further - Provider) complies with ISO/IEC 17043[1] requirements and covers all aspects of proficiency testing (further - PT) for all proficiency tests.

2. DESCRIPTION

2.1. PARTICIPATION

2.1.1. Minimum methods for participation. Any organization, providing testing by at least one of methods in clause 2.2 may participate in this voluntary Program.

2.1.2. Participant may provide results for all the methods according to clause 2.2.

2.1.3. Metrology service Ltd. assigns a unique identification number to each participant that is confidential and reported only to this participant.

2.1.4. Participation fee for participants from Ukraine is 7 500.00 UAH with VAT. Participation fee for participants from outside of Ukraine is 250.00 USD.

2.1.5. We are expecting from 5 to 15 Participants.

2.1.6. Each participant has a unique identification number what are assigned according to Application form for every round every Programme. This identification number is confidential and can be published only by the permission of the Participant. The Participant should write this unique identification number at Task sheet form for testing and reporting results for identification. If Provider is suspecting collusion or falsification, it applies own procedure for the work with unsatisfied results.

2.2. METHODS

Participants can provide the testing results of a sample (clause 2.3) for the following indicators. The choice of method is left to the laboratory

	Parameters	Range
1	Mass fraction of total nitrogen (N), %	1,0 – 10
2	Mass fraction of ammonium nitrogen (N), %	0,40 – 4,0
3	Mass fraction of total phosphorus, expressed as P ₂ O ₅ , %	0,40 – 4,0
4	Mass fraction of total sulfur, expressed as SO ₃ , %	0,40 – 4,0
5	Mass fraction of total potassium, expressed as K ₂ O, %	0,40 – 4,0
6	Mass fraction of total calcium, expressed as CaO, %	0,40 – 4,0
7	Mass fraction of total magnesium, expressed as MgO, %	0,40 – 4,0
8	Mass fraction of total sodium, expressed as Na ₂ O, %	0,40 – 4,0
9	Mass fraction of total copper (Cu), mg/kg	20 – 200
10	Mass fraction of total iron (Fe), mg/kg	200 – 2000

	Parameters	Range
11	Mass fraction of total manganese (Mn), mg/kg	200 – 2000
12	Mass fraction of total zinc (Zn), mg/kg	200 – 2000
13	Mass fraction of cadmium (Cd), mg/kg	0,10 – 2,0
14	Mass fraction of chromium (Cr), mg/kg	1,0 – 20
15	Mass fraction of nickel (Ni), mg/kg	1,0 – 20
16	Mass fraction of moisture, %	-
17	pH of aqueous suspension, pH units	-
18	pH of salt suspension, pH units	-
19	Mass fraction of ash (450 °C), %	-
20	Mass fraction of ash (800 °C), %	-
21	Mass fraction of organic matter on a carbon basis, %	-

The Information for methods of preparation of samples and way of testing Participant should use from methods according to clause 2.2.

2.3. SAMPLES

2.3.1. Metrology service Ltd. is using contractors for the selection, production, homogenization and division designs that are satisfactory for the purposes of this programme. The names and addresses of contractors can be given by request after publishing the final report.

Provider uses methods according to clause 2.2. for validation of homogeneity and stability. The quantity of methods can be decreased according to the decision of Provider's technical experts.

Tests, that are required to prove homogeneity and stability of samples are performed by competent contractors according to [1-5]. Provider uses a validated procedure of management system Metrology service Ltd for the samples' selection, production, division, checking of the quality and storage.

Requirements for the manufacture, quality control, storage and distribution of samples are determined by the relevant procedures of management system Metrology service Ltd. Metrology service Ltd uses the procedure Пp.ПK02-2017 for the manufacture, homogenization and separation of samples.

2.3.2. Metrology service Ltd. will send appropriately identified and packaged sample together with task sheet form for testing and reporting results via courier delivery service of Nova Poshta LLC or other delivery service chosen by participant. Shipping expenses for participants from Ukraine are not included in participation price. Shipping expenses outside of Ukraine are not included in the price of participation.

Approximately 100g of complex organic fertilizers in air-dry condition is used as a sample in round 2. The sample will be packaged in a special PET-bottle.

2.4. SCHEME AND SCHEDULE

2.4.1. This proficiency testing program is a simultaneous participation schemes according to A.2 of appendix A ISO/IEC 17043[1]. Selected samples, prepared according to clause 2.3, from a source of material being distributed simultaneously to participants for concurrent testing. After completion of the testing, the results are returned to Metrology Service Ltd.

Task sheet form for testing and reporting results is distributed with the sample according to clause 2.3. Participant should use only this form for reporting.

Metrology Service Ltd use statistical methods to analyze results and provide report according to clause. 2.5.

2.4.2. Round 2 schedule.

Participants registration	till 13-00 EET 12.09.2026
Sample shipment	15.09.2026
Reporting results for participants	till 13-00 EET 12.10.2026
Report publication	till 31.10.2026

2.5. REPORT AND PROCESSING RESULTS

2.5.1. Metrology service Ltd. processes and analyses results according to [1-5].

2.5.2. Metrology service Ltd. publishes the Proficiency testing report according to [1].

2.5.3. Provider 'll express Participant's results for quantitative methods as traditional z-scores.

2.5.4. The assigned value for each analyte was calculated as the robust mean of the trial data using Huber H15 method or Algorithm A variation, Annex C.3.

2.5.5. Proficiency testing report will be published in two languages – English and Ukrainian. Basic (reference) language is English. Both version of the report 'll be published at internet <http://www.metrologyservice.com.ua>

3. PARTICIPANT INFORMATION

Participants must provide e-mail request for participation (Annex 1 to the Program) in accordance with the schedule Round (p.2.4.2.). Application form should be sent to the e-mail address pt.smetrology@gmail.com

4. PROVIDER CONTACTS AND PROGRAM MANAGER

Metrology service Ltd., Ukraine, 03022, Kyiv, 18 Yulii Zdanovskoi st. office 704.

e-mail: pt.smetrology@gmail.com

Nataliia Bozhko

phone: +38(099)305-79-78

5. NORMATIVE REFERENCE

1. ISO/IEC 17043:2023 Conformity assessment – General requirements for the competence of proficiency testing providers.

2. ISO 13528:2022 Statistical methods for use in proficiency testing by interlaboratory comparison.

3. Fearn, T. and Thompson, M, A new test for 'sufficient homogeneity', Analyst, 2001, 126, 1414-1417.

4. ISO 33405:2024 Reference materials — Approaches for characterization and assessment of homogeneity and stability.

5. ILAC Discussion Paper on Homogeneity and Stability Testing, April 2008.

Addition 1. Application form:

PT Program Name, number of raund:	PT.UA.11.4.2023 ORGANIC FERTILIZERS. (QUALITY)– ROUND 2
Date of applying:	
The full name of the laboratory original language:	
The full name of the laboratory in english:	
Address of samples delivery:	
Name of the responsible person from the Participant and telephone number (if possible, mobile):	
Contact email address of the responsible person from the Participant:	
Certificate delivery address:	
Information for a contract: Full legal entity name:	
Full legal address:	
Company bank's detail (account, tax code, etc):	
Name of the person signing the Contract:	

* All fields are required