

Director
Metrology service Ltd.



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PROFICIENCY TESTING PT.UA.1.2.2016
MAIZE ANALYSIS (QUALITY)
PROFICIENCY TESTING PROGRAMME – ROUND 3 (ENG)

Kyiv-2018

1. INTRODUCTION

Given the key role of reliable test results that are needed during crops trade, requirements for the competence of laboratories that perform such tests should be confirmed.

The purpose of proficiency testing in corn testing is to determine the characteristics of the operation (as described in ISO/IEC 17043 [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.

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 4200.00 UAH without paying VAT. Participation fee for participants from outside of Ukraine is 180.00 USD.

2.2. METHODS

Participants can provide test results for the following methods:

	Показник	Метод	Примітки
1.	Broken grains, %	EN 16378:2013	
2.	Grain impurities, %	EN 16378:2013	
3.	Miscellaneous impurities, %	EN 16378:2013	
4.	Broken grains, %	ISO 19942:2018	
5.	Damaged grains, %	ISO 19942:2018	
6.	Other grains, %	ISO 19942:2018	
7.	Miscellaneous impurities, %	ISO 19942:2018	
8.	Moisture content, %	ISO 6540:1980/ ДСТУ ISO 6540:2007	
9.	Crude protein content,%	ISO 20483:2013/ ДСТУ ISO 20483:2016	Expressed on dry matter, factor for converting nitrogen content to protein content - 6.25.
10.	Crude protein content,%	ISO 16634-2:2016	Expressed on dry matter, factor for converting nitrogen content to protein content - 6.25.
11.	Crude protein content,%	ISO 12099:2017	Expressed on dry matter, factor for converting nitrogen content to protein content - 6.25.
12.	Ash yield, %	ISO 2171:2007/ ДСТУ ISO 2171:2009	Expressed on dry matter

	Показник	Метод	Примітки
13.	Fat content,%	ISO 6492:1999/ ДСТУ ISO 6492:2003	Expressed as a mass fraction of the product as received
14.	Fat content,%	ISO 12099:2017	Expressed as a mass fraction of the product as received
15.	Crude fibre content,%	ISO 6865:2000/ ДСТУ ISO 6865	Expressed as a mass fraction of the product as received
16.	Crude fibre content,%	ISO 12099:2017	Expressed as a mass fraction of the product as received
17.	Broken Corn, %	USDA(Grain Grading Procedures, Chapter 4 - Corn April 11, 2017)	
18.	Foreign Material, %	USDA(Grain Grading Procedures, Chapter 4 - Corn April 11, 2017)	
19.	Damaged kernels, %	USDA (Grain Grading Procedures, Chapter 4 - Corn April 11, 2017)	
20.	Test weight, lbu/bu	USDA(Grain Grading Procedures, Chapter 1 - General Information July 30, 2013)	
21.	Test weight, g/l	ГОСТ 10840-64	
22.	Foreign impurities, %	ГОСТ 30483-97 /ДСТУ 4525:2006	
23.	Grain impurities, %	ГОСТ 30483-97 /ДСТУ 4525:2006	
24.	Moisture content, %	ГОСТ 13586.5-93	
25.	Moisture content, %	ДСТУ 4117:2007	
26.	Mass fraction of crude protein,%	ДСТУ 7169:2010	Expressed on dry matter, factor for converting nitrogen content to protein content - 6.0.
27.	Ash content,%	ГОСТ 10847-74	Expressed on dry matter
28.	Ash content,%	ДСТУ 4117:2007	Expressed on dry matter
29.	Mass fraction of crude fat,%	ГОСТ 13496.15-97	Expressed on dry matter
30.	Mass fraction of crude fibre,%	ГОСТ 13496.2-91	Expressed on dry matter

2.3. SAMPLES

Metrology service Ltd. is using a validated procedure and appropriate technical experts and contractors for the selection, production, homogenization and division designs that is satisfactory for the purposes of this program. Tests, that are required to prove homogeneity and stability of samples are performed by competent contractors according to [3-7].

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.

Maize (*Zéa máys*) is used as a sample in round 3 in an amount of 3 kg for each participant.

2.4. SCHEME AND SCHEDULE

2.4.1. This proficiency testing program is a simultaneous participation scheme according to A.3 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. Metrology use statistical methods to analyse results and provide report according to clause.2.5.

2.4.2. Round 3 schedule.

Participants registration	till 13-00 EET 25.01.2019
Sample shipment	28.01.2019
Reporting results for participants	till 13-00 EET 14.02.2019
Report publication	22.02.2019

2.5. REPORT AND PROCESSING RESULTS

22.5.1. Metrology service Ltd. processes and analyses results according to [1-7].

2.5.2. Metrology service Ltd. publishes the Proficiency testing report according to [1,2].

2.5.3. Proficiency testing report will be published in two languages – English and Ukrainian. Basic (reference) language is English.

3. PARTICIPANT INFORMATION

Participants must provide the following information by **e-mail in any form**:

1. Full name (English and/or Ukrainian), Bank details, address, registration number, detail of person, who will sign a contract;
2. Full name and address of laboratory (testing facility) if it is not equal to clause 1;
3. Address of shipment of samples or Nova Poshta LLC department number (with the choice of shipment type);
4. Participant contact person full name;
5. Contact telephone number (e.g. mobile) and e-mail address of the participant contact person.

4. PROVIDER CONTACTS AND PROGRAM MANAGER

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

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5. NORMATIVE REFERENCE

1. ISO/IEC 17043:2010 Conformity assessment -- General requirements for proficiency testing
2. ISO 13528:2015 Statistical methods for use in proficiency testing by interlaboratory comparisons
3. FOOD ANALYSIS PERFORMANCE ASSESSMENT SCHEME (FAPAS). Protocol for the organization and analysis of data, sixth edition, 2002
4. Fearn, T. and Thompson, M, A new test for 'sufficient homogeneity', Analyst, 2001, 126, 1414-1417
5. ISO Guide 35:2006 Reference materials -- General and statistical principles for certification
6. ILAC Discussion Paper on Homogeneity and Stability Testing, April 2008.
7. ISO Guide 35:2017 Reference materials -- Guidance for characterization and assessment of homogeneity and stability
8. ILAC Discussion Paper on Homogeneity and Stability Testing, April 2008.
9. ISO 17034:2016 General requirements for the competence of reference material producers