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Metrology service Ltd.

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**PROFICIENCY TESTING PT.UA.1.4.2017**  
**MILLING PRODUCTS (QUALITY)**  
**PROFICIENCY TESTING PROGRAMME – ROUND 2(ENG)**

Kyiv-2017

## 1. INTRODUCTION

Given the key role of reliable test results that are needed during world flour trade and agriculture in general, 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], the GD-08.15.31 [2]) 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 4 050.00 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:

#### 2.2.1. International methods

	Parameter	Method	Note
1.	Moisture, %	ISO 712:2009	
2.	Protein content, %	ISO 20483:2013	Expressed on dry matter, factor for converting nitrogen content to protein content - 5.7
3.	Ash yield,%	ISO 2171:2007/ ДСТУ ISO 2171:2009	Expressed on dry matter
4.	Falling number,s	ISO 3093:2009/ ДСТУ ISO 3093:2009	
5.	Acidity of oil, mg KOH/100 g	ISO 7305:1998	
6.	Wet gluten content, %	ISO 21415-1:2006/ ДСТУ ISO 21415- 1:2009	
7.	Wet gluten content, %	ISO 21415-2:2015/ ДСТУ ISO 21415- 2:2009	
8.	Gluten index	ISO 21415-2:2015	
9.	Dry gluten content, %	ISO 21415-3:2006/	

		ISO 21415-4:2006	
	Alveograph properties of dough:		
10.	Deformation energy, W	ISO 27971:2015	
11.	Maximum pressure parameter, P	ISO 27971:2015	
12.	Mean abscissa at rupture, L	ISO 27971:2015	
13.	Index of swelling, G	ISO 27971:2015	
14.	Curve configuration ratio, P/L	ISO 27971:2015	
15.	Sedimentation index – Zeleni test, ml	ISO 5529:2007	

### 2.2.2. National methods

	Parameter	Method	Note
1.	Moisture content, %	ГОСТ 9404-88	
2.	Protein content, %	ГОСТ 10846-91	Expressed on dry matter, factor for converting nitrogen content to protein content - 5.7
3.	Ash content, %	ГОСТ 27494-87	Expressed on dry matter
4.	Falling number, s	ГОСТ 27676-88	
5.	Acidity, °of acidity	ГОСТ 27493-87	
6.	Wet gluten content, %	ГОСТ 27839-88	
7.	Index of gluten deformation	ГОСТ 27839-88	
8.	Whiteness of flour, c.u.	ДСТУ 4870:2007	

## 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.

**Wheat flour is used as a sample in round 2 in an amount of approximately 2 kg for each participant.**

## 2.4. SCHEME AND SCHEDULE

2.4.1. This proficiency testing program is a simultaneous participation schemes 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 analyze results and provide report according to clause.2.5.

2.4.2. Round 2 schedule.

Participants registration	<b>till 13-00 EET 30.03.2018</b>
Sample shipment	<b>02.04.2018</b>

Reporting results for participants	till 13-00 EET 18.04.2018
Report publication	till 26.04.2018

## 2.5. REPORT AND PROCESSING RESULTS

2.5.1. Metrology service Ltd. processes and analyses results according to [1-6].

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, 45 Vasilkivska st., office 403.

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## 5. NORMATIVE REFERENCE

1. ISO/IEC 17043:2010 Conformity assessment -- General requirements for proficiency testing
2. National accreditation agency of Ukraine GD 08.15.31 Management system General document «Conformity assessment. General requirements for proficiency testing»
3. ISO 13528:2015 Statistical methods for use in proficiency testing by interlaboratory comparisons
4. FOOD ANALYSIS PERFORMANCE ASSESSMENT SCHEME (FAPAS). Protocol for the organization and analysis of data, sixth edition, 2002
5. Fearn, T. and Thompson, M, A new test for ‘sufficient homogeneity’, Analyst, 2001, 126, 1414-1417
6. ISO Guide 35:2006 Reference materials -- General and statistical principles for certification
7. ILAC Discussion Paper on Homogeneity and Stability Testing, April 2008.