

Director Metrology service Ltd.



Bozhko Nataliia March 14<sup>th</sup> 2017

# PROFICIENCY TESTING PT.UA.1.5.2017 OILSEEDS (QUALITY)

**PROFICIENCY TESTING PROGRAMME – ROUND 1(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 oil seeds testing is to determine the characteristics of the operation (as described in ISO\IEC 17043 [1-2]) 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.

The functioning management system Metrology service Ltd. (further - Provider) complies with ISO\IEC 17043:2010[1-2] 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 4 200.00 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:

	Parameter	Method	Note
1.	Moisture, %	ISO 665:2000/	
		ДСТУ ISO 665:2008	
2.	Total impurities content, %	ISO 658:2002/	
		ДСТУ ISO 658:2006	
3.	Defective seeds, %	ISO 605:1991	
4.	Organic impurities, %	ISO 605:1991	
5.	Inorganic impurities, %	ISO 605:1991	
6.	Foreign material, %	USDA	
7.	Damaged kernels, %	USDA	
8.	Soybeans of other colors, %	USDA	
9.	Splits, %	USDA	
10.	Test weight, lb/bu	USDA	
11.	Crude protein content, %	ISO 5983-1:2005	Expressed as a percentage by mass of
		/ДСТУ ISO 5983-	the product as received
		1:2014	
12.	Crude protein content, %	ISO 5983-2:2009/	Expressed as a percentage by mass of
		ДСТУ ISO 5983-	the product as received

2.2.1. International methods

Page 2 out of 5.

Metrology service Ltd. Proficiency testing programme PT.UA.1.5.2017. Round 1(ENG)

		2:2014	
13.	Oil content, %	ISO 659:2009/ДСТУ	Expressed as a percentage by mass of
		ISO 659:2007	the product as received
14.	Acidity of oil (as oleic acid), %	ISO 660:2009/ISO	
		729:1988/ДСТУ ISO	
		729:2005	
	Gas chromatography of fatty acid		Extraction of oil according
	methyl esters		ISO 659:2009/ДСТУ ISO 659:2007
15.	Palmitic acid C16:0, %	ISO 12966-4:2015	
16.	Stearic acid C18:0, %	ISO 12966-4:2015	
17.	Total C18:1 (Sum of isomers), %	ISO 12966-4:2015	
18.	Total C18:2 (Sum of isomers), %	ISO 12966-4:2015	
19.	Total C18:3 (Sum of isomers), %	ISO 12966-4:2015	

#### 2.2.2. National methods

	Parameter	Method	Note
1.	Moisture, %	ДСТУ 4811:2007	
2.	Foreign impurities, %	ГОСТ 10854-88	
3.	Oleaginous impurities,%	ГОСТ 10854-88	
4.	Test weight, g/l	ГОСТ 10840-64	
5.	Protein content, %	ГОСТ 10846-91	Expressed on dry matter, factor for converting nitrogen content to protein content – 6.25
6.	Protein content, %	ДСТУ 4117:2007	Expressed on dry matter, factor for converting nitrogen content to protein content - 6.25
7.	Crude protein content, %	ДСТУ 7169:2010	Expressed on dry matter, factor for converting nitrogen content to protein content - 5.3
8.	Oil content, %	ДСТУ 7577-2014	Expressed on dry matter
9.	Oil content, %	ДСТУ 4117:2007	Expressed on dry matter
10.	Acid value, mg KOH	ГОСТ 10858-77	

#### **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.

Soybean is used as a sample in round 1 in an amount of approximately 3 kg for each participant.

## 2.4. SCHEME AND SCHEDULE

2.4.1. This proficiency testing program is a simultaneous participation schemesaccording 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.

Participants registration	till 13-00 EET 12.05.2017
Sample shipment	15.05.2017
Reporting results for participants	till 13-00 EET 24.05.2017
Report publication	till 31.05.2017

2.4.2. Round 1 schedule.

### **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. Nataliia Bozhko e-mail: <u>smetrology@gmail.com</u> tel.: +38(044)500-66-23 cell: +38(067)458-26-81

## **5. NORMATIVE REFERENCE**

1. ISO/IEC 17043:2010 Conformity assessment -- General requirements for proficiency testing

2. ДСТУ EN ISO/IEC 17043:2014 Оцінка відповідності. Загальні вимоги до перевірки кваліфікації лабораторій.

Page 4 out of 5. Metrology service Ltd. Proficiency testing programme PT.UA.1.5.2017. Round 1(ENG) 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.