



Bozhko Nataliia
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PROFICIENCY TESTING PT.UA.1.5.2017
OILSEEDS (QUALITY)
PROFICIENCY TESTING PROGRAMME – ROUND 7

Kyiv-2019

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 4 400.00 UAH without paying VAT. Participation fee for participants from outside of Ukraine is 200.00 USD.

2.1.5. We are expecting from 20 to 40 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 test results for the following methods:

2.2.1. Methods

	Parameter	Method	Note
1.	Moisture and volalile matter content, %	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 and inorganic impurities, %	ISO 605:1991	
5.	Foreign material, %	USDA(Grain Grading Procedures, Chapter 10 - Soybeans July 30, 2013	

	Parameter	Method	Note
6.	Damaged kernels, %	USDA (Grain Grading Procedures, Chapter 10 - Soybeans July 30, 2013)	
7.	Soybeans of other colors, %	USDA (Grain Grading Procedures, Chapter 10 - Soybeans July 30, 2013)	
8.	Splits, %	USDA (Grain Grading Procedures, Chapter 10 - Soybeans July 30, 2013)	
9.	Test weight, lb/bu	USDA(Grain Grading Procedures, Chapter 10 - Soybeans July 30, 2013)	
10.	Crude protein content, %	ISO 5983-1:2005/ ДСТУ ISO 5983-1:2014	Expressed as a percentage by mass of the product as received
11.	Crude protein content, %	ISO 5983-2:2009/ ДСТУ ISO 5983-2:2014	Expressed as a percentage by mass of the product as received
12.	Crude protein content, %	ISO 16634-1:2008	Expressed as a percentage by mass of the product as received, factor for converting nitrogen content to protein content - 6.25
13.	Oil content, %	ISO 659:2009/ ДСТУ ISO 659:2007	Expressed as a percentage by mass of the product as received
14.	Acidity of oil (as oleic acid), %	ISO 660:2009/ ДСТУ ISO 660:2009	
15.	Acidity of oil (as oleic acid), %	ISO 729:1988/ ДСТУ ISO 729:2005	
	Gas chromatography of fatty acid methyl esters		Extraction of oil according ISO 659:2009/ДСТУ ISO 659:2007.
16.	Palmitic acid C16:0, %	ISO 12966-4:2015/ ДСТУ ISO 5508:2001	Calculate the area fraction of the individual fatty acid methyl esters, expressed as a percentage by sum of areas under all peaks of all individual fatty acid methyl ester, without correction factors
17.	Stearic acid C18:0, %	ISO 12966-4:2015/ ДСТУ ISO 5508:2001	
18.	Total C18:1 (Sum of isomers), %	ISO 12966-4:2015/ ДСТУ ISO 5508:2001	
19.	Total C18:2 (Sum of isomers), %	ISO 12966-4:2015/ ДСТУ ISO 5508:2001	
20.	Total C18:3 (Sum of isomers), %	ISO 12966-4:2015/ ДСТУ ISO 5508:2001	
21.	Moisture content, %	ДСТУ 4811:2007	
22.	Foreign impurities, %	ДСТУ 8837:2019/ ДСТУ 4964:2008	
23.	Oleaginous impurities,%	ДСТУ 8837:2019/ ДСТУ 4964:2008	
24.	Test weight, g/l	ГОСТ 10840-64	
25.	Protein content, %	ГОСТ 10846-91	Expressed on dry matter, factor for converting nitrogen content to protein content – 6.25
26.	Crude protein content, %	ДСТУ 7169:2010	Expressed on dry matter, factor

	Parameter	Method	Note
			for converting nitrogen content to protein content - 5.3
27.	Oil content, %	ДСТУ 7577:2014	Expressed on dry matter, in seeds, cleaned from foreign matter according ДСТУ 8837/ДСТУ 4964:2008, with pre-drying
28.	Acid value, mg KOH	ДСТУ 8839:2019	
29.	Moisture content, %	Express	With note of participants of reference method for initial validation of express analyzer
30.	Protein content, %	Express	Expressed on dry matter. With note of participants of reference method for initial validation of express analyzer
31.	Oil content, %	Express	Expressed on dry matter. With note of participants of reference method for initial validation of express analyzer

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

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 [3-7]. Provider uses a validated procedure of management system Metrology Service Ltd for the samples' selection, production, division, checking of the quality and storage.

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 included in participation price. Shipping expenses outside of Ukraine are not included in the price of participation.

Soybean is used as a sample in round 7 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 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. 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 7 schedule.

Participants registration	till 13-00 EET 08.05.2020
Sample shipment	11.05.2020
Reporting results for participants	till 13-00 EET 27.05.2020
Report publication	till 10.06.2020

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. Provider 'Il 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

2.5.3. Proficiency testing report will be published in two languages – English and Ukrainian. Basic (reference) language is English. Both version of the report 'Il 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.).

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. ДСТУ EN ISO/IEC 17043:2017 Оцінка відповідності. Загальні вимоги до перевірки професійного рівня.
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 35:2017 Reference materials -- Guidance for characterization and assessment of homogeneity and stability.
7. ILAC Discussion Paper on Homogeneity and Stability Testing, April 2008.
8. ISO 17034:2016 General requirements for the competence of reference material producers.

Addition 1. Application form:

PT Program Name:	PT.UA.1.5.2017 OILSEEDS (QUALITY) – ROUND 7
The full name of the laboratory	
Full legal entity name:	
Address:	
Bank details:	
Name of the person signing the Contract and on the basis of which:	
Delivery address of the sample	
Name of the responsible person from the Participant:	
Contact telephone number (if possible, mobile) and email address of the responsible person from the Participant:	
Certificate delivery address	
Date of application:	

* All fields are required.