11 September 2025

To: Pre-registered participants for the interlaboratory comparison

Interlaboratory comparison
B2B 12/2025 – Analyses of biowaste compost quality parameters

Finnish Food Authority, in collaboration with Proftest Syke's proficiency testing services, is organizing an interlaboratory comparison (ILC) for laboratories that perform soil improver/compost quality parameter analyses. The following measurands will be tested from two biowaste compost samples: pH, dry matter (DM), bulk density, electrical conductivity, impurities (IMP), total nitrogen (N_{tot}), organic matter, total organic carbon (TOC), and stability (oxygen uptake rate, OUR). About 14 laboratories are expected to participate in this interlaboratory comparison. This ILC is part of EU co-funded Bin2Bean project (bin2bean.eu). This interlaboratory comparison is not included in the Proftest Syke accreditation scope (PT01, finas.fi/sites/en), however, its organization follows the principles of accredited operations.

Sample matrices

Two biowaste compost samples of slightly different maturity levels.

Timetable

Registration	**11 – 23 September 2025**	
Sample dispatch date	27 October 2025 (see Chapter 4 *Sample delivery)*	
Analyses of the samples	pH and electrical conductivity	at the latest by **7 November 2025**
	Other measurands	at the latest by **14 November 2025**
Reporting of the results	**28 October – 17 November 2025**	

Participation fee

The participation in this interlaboratory comparison is free of charge.

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Liisa Maunuksela,
Finnish Food Authority, organiser

Mirja Leivuori,
Proftest Syke, specialist for the interlaboratory comparison activities

Proftest Syke guide for participants is available on Proftest Syke website (syke.fi/proftest/en).

Organizing the interlaboratory comparison

1 Organiser

Organiser and expert laboratory

Finnish Food Authority, Mustialankatu 3, FI-00790 Helsinki

Responsible organisers Liisa Maunuksela tel. +358 40 025 6097
Elli Auvinen tel. +358 50 3030772

Analytical experts Mikko Lehtonen (stability, impurities)
Aija Pelkonen (the other measurands)

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Expert laboratory Finnish Food Authority, Helsinki (T014, finas.fi/sites/en, measurements for impurities, N_{tot}, TOC and stability are not included in the accredited scope)

Expert in interlaboratory comparison activities

Proftest Syke, Finnish Environment Institute Syke, Mustialankatu 3, FI-00790 Helsinki, Finland

Specialist for ILC activities Mirja Leivuori, tel. +358 295 251 366
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Proftest Syke technical assistance Markku Ilmakunnas and Keijo Tervonen

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2 Samples and measurands

The sample matrices in this interlaboratory comparison consist of biowaste composts at two different maturity levels. Laboratories will receive both fresh and dried samples. Fresh samples are labeled as BioCom1 and BioCom2, while the corresponding dried samples are referred to as BioCom1_DG and BioCom2_DG. Samples intended for impurity analysis are labeled BioCom1_IMP and BioCom2_IMP.

Each participating laboratory is expected to analyze only the parameters they are equipped to measure; full parameter coverage is not required.

Samples, measurands, and units are presented in Appendix 1. Note, that stability is tested as **oxygen uptake rate (OUR**).

3 Registration

The registration for this interlaboratory comparison is open until **23 September 2025**.

Registration is done via the electronic client interface, ProftestWEB: wwwp5.ymparisto.fi/Labtest/en. Within the pages, instructions are available on every page. A short *Getting started* manual is available on ProftestWEB front page. If there are problems when using ProftestWEB or you need username and password, please contact proftest@syke.fi. Registration is possible without login credentials, which will be provided later by Proftest Syke.

4 Sample delivery

The sample dispatch day for participants is **27 October 2025**.

If the sample package does not arrive by **31 October** at the latest or there are missing and/or broken sample containers, please contact the organizer immediately (Elli Auvinen and proftest@syke.fi). More contact details in Chapter 1 *Organizer*.

5 Sample storage and analysis

The fresh samples have to be stored at 4 °C, and the dry samples at room temperature. Samples are analysed in the laboratory where they are delivered to, and analyses are conducted according to the participant's normal procedures.

For the other **measurands than impurities**, the analyses are performed as **duplicate determinations**, and **two results** are reported. For the **impurities** only **one result** is reported.

Timetable for sample analysis is on the first page of this letter.

6 Reporting the results

The participant results are reported to Proftest Syke by **17 November 2025 at the latest**.

An electronic survey about the methodological backgrounds shall be reported to Proftest Syke together with the results.

Proftest Syke delivers the preliminary results report to the participants by week 49 (1 – 5 December 2025). The final report will be published in February 2026 at the latest and it will be available on ProftestWEB and Proftest Syke website (syke.fi/proftest/en). The availability of the report will be informed to the participants.

7 Assigned values and evaluation of the results

The provider sets an assigned value to evaluate the participants' performance. Either the robust mean, the median, or the mean of the results reported by the participants will be used as the assigned value for the measurand. The calculation of the assigned value is based on the results reported according to the given guidelines. Also, when needed, the result of the expert laboratory can be used as the assigned value. The evaluation of the results will be based on z scores. In special cases also E_n or D% scores can be used for the performance evaluation.

8 Confidentiality

The results of the participants are treated anonymously. The participants' results of the round and the preliminary results report of the round are confidential and should not be shared with third parties during the implementation of the round.

9 Participation fee

This interlaboratory comparison is free of charge for participants.

Note: The participant is responsible for possible custom clearance or customs fee of the sample.

10 Appendices

Appendix 1 Samples, measurands, and units.

Appendix 1. Samples, measurands, and units.

Measurands, abbreviation	Sample matrix	Sample code	Sample type and volume	Unit
Bulk density	Biowaste compost 1	**BioCom1**	Fresh sample, 2.5 l	g/l
	Biowaste compost 2	**BioCom2**		
Electrical conductivity corrected at 25 °C, Conductivity 25	Biowaste compost 1	**BioCom1**	Fresh sample, 2.5 l	mS/m
	Biowaste compost 2	**BioCom2**		
Dry matter, DM	Biowaste compost 1	**BioCom1**	Fresh sample, 2,5 l	% by mass
	Biowaste compost 2	**BioCom2**		
pH	Biowaste compost 1	**BioCom1**	Fresh sample, 2.5 l	pH-unit
	Biowaste compost 2	**BioCom2**		
Organic matter	Biowaste compost 1	**BioCom1**	Fresh sample, 2.5 l	% m/m DM *(% by mass of dry matter)*
	Biowaste compost 2	**BioCom2**		
Stability, Oxygen uptake rate, OUR	Biowaste compost 1	**BioCom1**	Fresh sample, 2.5 l	mmol O_2/kg OM/h
	Biowaste compost 2	**BioCom2**		
Total organic carbon, TOC	Biowaste compost 1	**BioCom1_DG**	Dried and ground sample, 20 g	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_DG**		
Total nitrogen, N_{tot}	Biowaste compost 1	**BioCom1_DG**	Dried and ground sample, 20 g	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_DG**		
Impurities, Glass	Biowaste compost 1	**BioCom1_IMP**	Fresh 1,5 kg	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_IMP**		
Impurities, Metal	Biowaste compost 1	**BioCom1_IMP**	Fresh 1,5 kg	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_IMP**		
Impurities, Plastic	Biowaste compost 1	**BioCom1_IMP**	Fresh 1,5 kg	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_IMP**		
Impurities, Total	Biowaste compost 1	**BioCom1_IMP**	Fresh 1,5 kg	g/kg DM *(g/kg of dry matter)*
	Biowaste compost 2	**BioCom2_IMP**		