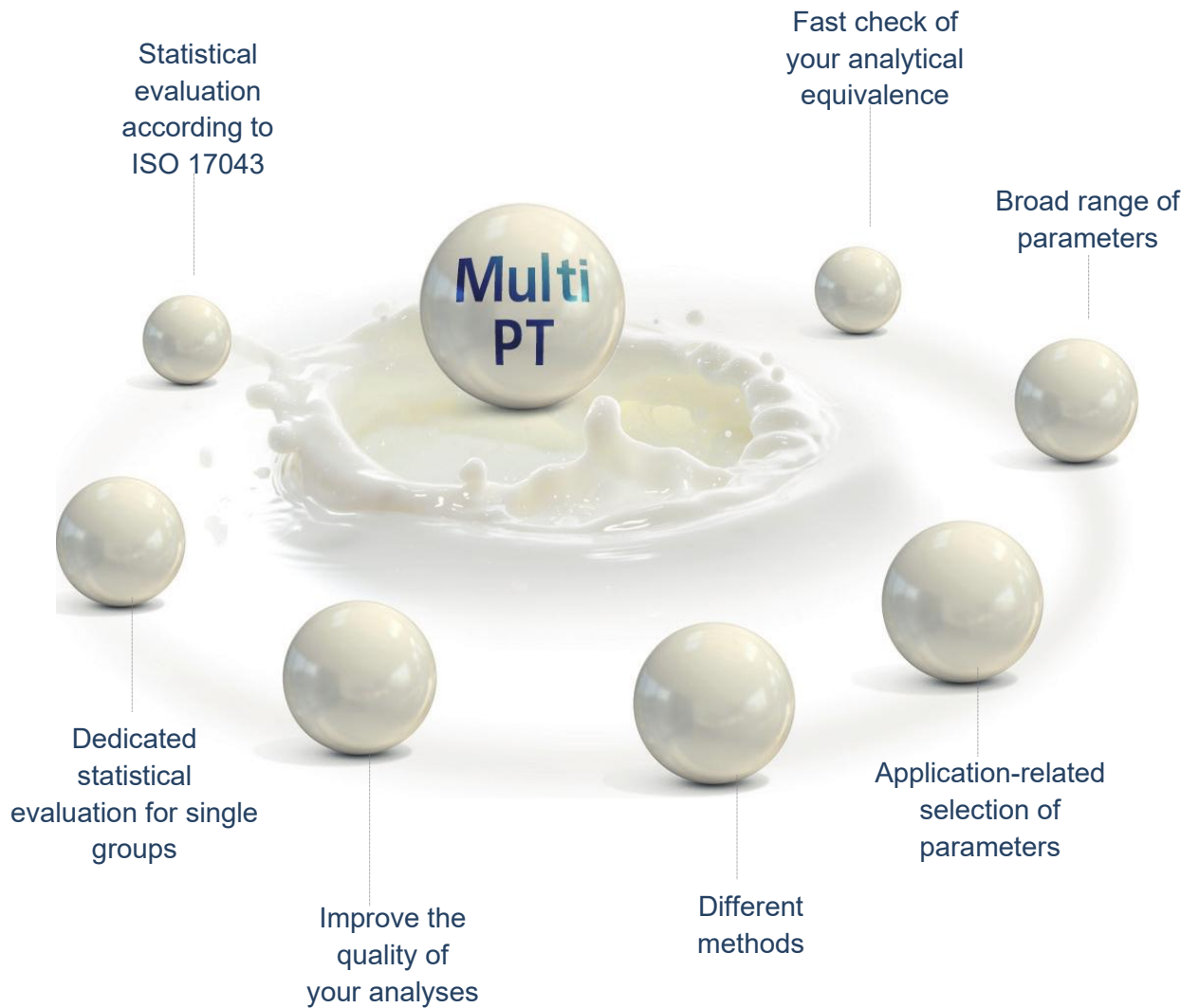


Your tool for quality assurance performance



Invitation to 22nd Multi-PT Proficiency Test in April 2026

2026-01-22

Dear Sir or Madam,

As an accredited proficiency test provider, we are very pleased to invite you to participate in our 22nd Multi Parameter Proficiency Test (Multi-PT) which will be conducted in April 2026.

Aim and Scheme

The aim of our Multi-PT is to provide you with a tool that allows you to monitor your performance during the entire cycle of milk and milk product analyses, from sample preparation to communication of data. In our final report, your performance will be compared with an international population of dairy laboratories allowing you to meet the requirements of ISO 17025.

Organisation and responsibilities

QSE GmbH is responsible for organisation and conducting the proficiency testing scheme, including sample production and distribution, homogeneity and stability tests, customer services, authorisation of the final report and issue of the certificates as well as long-term evaluations. The provision of our online portal and statistical calculations will be done by a competent subcontractor. The responsibility for the services done by the subcontractor lies with the proficiency test provider. All participant data is treated confidentially by QSE GmbH and the subcontractor.

Parameters, sample material and sample analysis

For analyses out of raw cow milk our Multi-PT covers 19 different parameters and up to 10 different concentration levels for each parameter (see table 1 and 2). For cream (from cow's milk) we offer 3 different concentration levels and 3 different parameters (see table 3). Participation in all parameters is not obligatory; you have the possibility to sign up only for the parameter you are interested in. This allows you to optimise your participation costs. Depending on the parameter you are participating in, you will receive a sample set that consists of up to 31 different samples for raw milk analyses and of 3 samples for cream analyses. All methods will be considered, i.e. "reference" and "alternative" methods. The samples must be analyzed in duplicate, and each measurement must be performed under repeatable conditions.



Please note that the sample material is frozen. Please handle the material as specified in the instructions for storage and use. We also ask you to ensure that delivered packages are unpacked as quickly as possible and that samples are kept frozen if not used immediately.

Conditions of participation

The results of the analyses must be determined independently and without the help of others by means of your own staff and laboratory equipment in your own laboratory. Please note that the samples are to be treated like samples from routine analysis.

Feedback on results

Feedback on results is available until the results deadline (see Table 1 Schedule for the proficiency test) via the online portal PROLab_HUB (<https://qse.quodata.de>). If you have not yet received login details for the online portal by participating in one of our other proficiency tests, you will be sent your personal login details in good time. With these login details, you will be able to view the reports, certificates, and long-term evaluations (from the third participation onwards) of all Multi-PT proficiency tests in which you have participated. If the results are only stored in the portal by the deadline for results but are not finally transmitted, we assume that the participant agrees with the usage of the results for the statistical evaluation. If no results are reported back, the laboratory will not receive a certificate/confirmation of participation. It will only receive access to the report.

Results, statistical evaluation and reports

Statistical analysis will be performed according to DIN EN ISO 17043 and ISO 13528. If there are enough participants (at least 8), we will provide a complete statistical analysis of all results. Furthermore, we offer dedicated statistical elaborations for individual participant groups (at least 8 participants, e.g. dairy plants with different laboratories). A comprehensive report will be provided contemporary. Simple graphs and tables of each parameter-sample-combination will allow you to compare yourself with an international population of dairy laboratories (see attached examples). Your participation will be confirmed by a certificate and, if applicable, a long-term evaluation. "0-values", also "</> - values" are not evaluated and do not receive a z-score. If a sample set is not completely analysed or if only individual measured values are transmitted, this will be noted in the certificate and/ or report. Values that have been reported with incorrect units, incorrect signs, or obvious transposed digits, the entire duplicate determination is excluded from the statistical calculation.

Evaluation criteria

A laboratory has successfully participated in this proficiency test if the results of at least 80 % for all demanded parameter-sample-combinations and of at least 50 % for each analysed parameter are acceptable ($|z| \leq 2$). When only one parameter in total is analysed, the evaluation criterion for the submitted result is at least 80% acceptable results ($|z| \leq 2$).

Time plan 22nd Multi-PT April 2026

| | |
|---|--------------------------|
| Invitation | January 22, 2026 |
| Registration deadline | February 27, 2026 |
| Participation confirmation (no later than) | March 13, 2026 |
| Dispatch | April 20, 2026 |
| Dispatch information and information on how results should be reported back to QSE | April 21, 2026 |
| Participant has to report if package was not delivered | April 23, 2026 |
| Deadline to send back results | May 15, 2026 |
| Publication of report | June 18, 2026 |

Composition of sample sets, matrices and parameters of 22nd Multi-PT April 2026

- ❖ For raw milk we offer participation with up to 19 different parameters. Each parameter has up to 10 different concentration levels. In total, the material consists of up to 31 different samples depending on the parameter involved (table 1 and 2):
 - Samples 1-6 or 1-10 (yellow): parameters fat, protein (without sample 1), lactose monohydrate, dry matter, casein, pH, F.P. and urea
 - Samples 11-16 (pink): parameter PAG (frozen)
 - Samples 17-26 (green): parameter Somatic Cell Count (somatic cells of raw milk)
 - Sample 27-28 or 27-31 (orange): parameter unsaturated fatty acids, monounsaturated fatty acids, Polyunsaturated fatty acids, saturated fatty acids, C14:0, C16:0, C18:0, C18:1 and free fatty acids

- ❖ Our proficiency test for pasteurized cream consists of three samples (a, b, c) and covers a concentration range between 23 and 48 % fat. Apart from fat, the parameters protein and dry matter can be analysed too (table 3).

Proficiency test: raw milk (table 1)

| Raw milk table 1 | | | | | | | | | | |
|------------------|-----------|-----------|---------------------|-------------|-----------|----------------|-------------|-------------|-------------------------|--------------------|
| Sample | Fat | Protein | Lactose monohydrate | Dry matter | Casein | pH | F.P. | Urea | PAG | Somatic cell count |
| Unit | g /100 g | g /100 g | g /100 g | g /100 g | g /100 g | H ⁺ | m°C | mg/dl | Extinction | x 1000 /ml |
| 1 | 40 ml | | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 2 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 3 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 4 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 5 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 6 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | | |
| 7 | 40 ml | 40 ml | 40 ml | 40 ml | | | | | | |
| 8 | 40 ml | 40 ml | 40 ml | 40 ml | | | | | | |
| 9 | 40 ml | 40 ml | 40 ml | 40 ml | | | | | | |
| 10 | 40 ml | 40 ml | 40 ml | 40 ml | | | | | | |
| 11 | | | | | | | | | 40 ml | |
| 12 | | | | | | | | | 40 ml | |
| 13 | | | | | | | | | 40 ml | |
| 14 | | | | | | | | | 40 ml | |
| 15 | | | | | | | | | 40 ml | |
| 16 | | | | | | | | | 40 ml | |
| 17 | | | | | | | | | | 40 ml |
| 18 | | | | | | | | | | 40 ml |
| 19 | | | | | | | | | | 40 ml |
| 20 | | | | | | | | | | 40 ml |
| 21 | | | | | | | | | | 40 ml |
| 22 | | | | | | | | | | 40 ml |
| 23 | | | | | | | | | | 40 ml |
| 24 | | | | | | | | | | 40 ml |
| 25 | | | | | | | | | | 40 ml |
| 26 | | | | | | | | | | 40 ml |
| Conc.* | 2.1 – 6.1 | 2.9 – 4.4 | 4.2 – 5.5 | 11.2 – 15.6 | 2.4 – 3.6 | 6.5 – 7.0 | -600 - -500 | 13.0 – 53.0 | Pregnant / non pregnant | 100- 1200 |

* The concentration ranges given are informative guidelines.

frozen / gefroren

PAG Pregnancy Associated Glycoproteins
Conc. Concentration range
Konz. Konzentrationsbereich

F.P. Freezing Point
GP Gefrierpunkt

Invitation 22nd Multi-PT April 2026, page 5 of 8

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Ein Unternehmen des
 Milchprüfung Bayern e. V.



Deutsche
 Akkreditierungsstelle
 D-EP-20961-01-00

Proficiency test: raw milk (table 2)

| Raw milk table 2 | | | | | | | | | |
|------------------|-------------------------|------------------------------|------------------------------|-----------------------|---------------|---------------|---------------|---------------|------------------|
| Sample | Unsaturated fatty acids | Mono-unsaturated fatty acids | Poly-unsaturated fatty acids | Saturated fatty acids | C14:0 | C16:0 | C18:0 | C18:1 | Free fatty acids |
| Unit | g /100 g milk | g /100 g milk | g /100 g milk | g /100 g milk | g /100 g milk | g /100 g milk | g /100 g milk | g /100 g milk | mmol /100 g fat |
| 27 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml |
| 28 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml |
| 29 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | |
| 30 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | |
| 31 | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | 40 ml | |
| Conc.* | 0.6 – 1.8 | 0.4 – 1.5 | 0.04 – 0.25 | 1.2 – 3.6 | 0.1 – 0.7 | 0.4 – 1.8 | 0.1 – 0.5 | 0.3 – 1.3 | 0.3 – 0.8 |

* The concentration ranges given are informative guidelines.

Proficiency test: pasteurized cream (table 3)

| Cream table 3 | | | |
|---------------|-------------|-----------|-------------|
| Sample | Fat | Protein | Dry matter |
| Unit | g /100 g | g /100 g | g /100 g |
| a | 40 ml | 40 ml | 40 ml |
| b | 40 ml | 40 ml | 40 ml |
| c | 40 ml | 40 ml | 40 ml |
| Conc.* | 23.0 – 48.0 | 1.7 – 2.7 | 33.0 – 47.0 |

* The concentration ranges given are informative guidelines.

Why participate in the QSE Multi-PT?

- Check a large range of concentrations - useful for laboratories that perform milk payment and DHI analyses (bulk or single cow milk analyses).
- You can participate only in and pay for parameters you are interested in - this allows you to optimise your participation costs.
- Receive a detailed report within a month, containing simple graphs and tables (see attached examples). This will help you to focus on specific steps of your analytical process.
- Receive an updated control chart (long-term evaluation) of your performance starting with your 3rd participation which includes the evaluation of your results from the previous 10 participations - this objective document thus allows you to show your accreditation body your performance over time.
- New parameters can be added to the scheme if enough laboratories request this.
- Specific statistical elaboration for certain participant groups is possible (at least 8 participants, e.g. some dairy plants or associations/cooperatives that have more than one laboratory; involves additional costs).
- Retest “failed samples” up to four weeks after the report has been received. A useful tool to solve non-compliant steps of your analytical process and demonstrate pragmatically willingness to solve problematic analytical steps. This is possible because the samples have a long shelf life (retesting involves additional costs).
- If desired, QSE staff will assist you in analysing the data and subsequently take you through a root cause evaluation after the final report has been released.

Participation cost and registration

There is a set fee for each sample set. Please refer to the corresponding registration form for details. The set fee is independent of the number of parameters you analyze. We charge an additional evaluation fee of €22 per parameter/analysis (except for PAG and SCC). Shipping-, packaging-, (veterinarian- or customs-) costs are not included and will be specified in the participation notification. If the sample volume (40 mL for frozen) is sufficient for analysing parameters several times (e.g. one analysis with the reference method and one analysis with the alternative method or analyses are repeated by another technician or equipment), you can report the extra results as well. We will charge you an additional 20 € for each extra submitted analysis /method. However, if your analytical condition requires two or “x” sets of samples, the cost will be $x \cdot \text{set fee} + x \cdot 22 \text{ €}$ per parameter. A certificate which summarises your results is included in the price. If you require extra certificate(s) for single parameters or device(s), please note that 20 € will be charged for each.

In the attachment to this invitation, you will find a registration form that has to be completed and sent back **before February 27, 2026**.

Continuous proficiency testing schemes

We will offer Multi-PT in October 2026 again. If you are interested in any extended parameters, please contact us.

Please note:

- For participants, who reside outside of Germany, local import charges, taxes, veterinarian (etc.) may arise, in addition to courier charges; these have to be covered by participant.
- If you reside outside of Europe, please note that we first have to verify, if it is possible to send the frozen sample material to your country.
- We cannot guarantee that the minimum number of participants will register for each parameter; in addition, if the minimum number of participants is reached, we cannot guarantee that all participants will submit their results.
- If you do not receive the package or if it is delayed or damaged, you have to inform us by April 23, 2026, at the latest. Otherwise, QSE will invoice you for the Multi-PT.

Please do not hesitate to contact us if you need any further information.

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Kind regards

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This document was created electronically and is valid without a signature.