



TRILOGY EUROPE B.V.

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About Trilogy

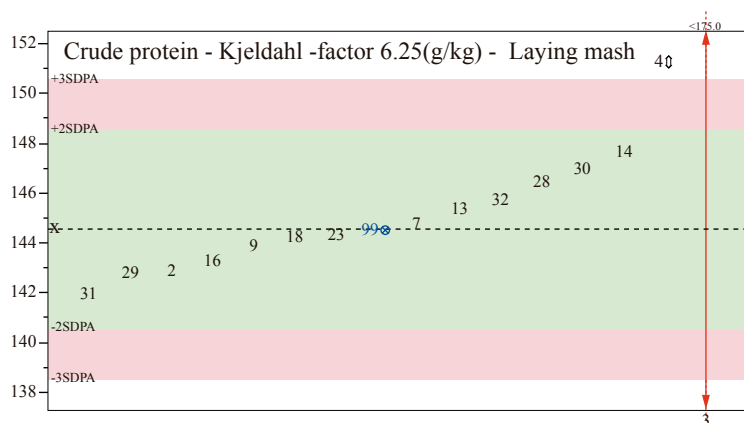
Food and feed analytical laboratories need to assure quality of their analytical methods by using appropriate reference materials and participating in proficiency testing schemes. Now you can choose Trilogy Europe B.V. as your reference and proficiency testing materials provider! Trilogy Europe B.V. has been just established in the Netherlands and is a subsidiary of well-recognized US company Trilogy with branches in Argentina and India. Trilogy Europe B.V. organise proficiency tests and provide reference materials focused on analytical, physical, microbiological and microscopic quality assurance for laboratories and companies to monitor, guarantee and improve their quality. We support laboratories, industry associations, government and multinationals in optimising their quality assurance system. Trilogy Europe B.V. is also a part of the R-Biopharm Group.

The importance of proficiency tests

Proficiency tests are essential part of laboratory quality assurance system. Each proficiency test provides you with a score allowing you to assess if any corrective actions are needed. In addition, proficiency tests are used internally for specific validation or to harmonise (new) analytical methods or sampling techniques. They can be used, for example, to determine the precision and accuracy in different matrices and for different analytes. Proficiency tests are mandatory to obtain or maintain your laboratory accreditation and recognition. The results of proficiency tests must be submitted periodically to the Accreditation Council, GMP + or government bodies for assessment.

Why Trilogy?

The proficiency tests offered by Trilogy Europe B.V. are conducted in accordance with the ISO / IEC 17043 standard. Quality, relevance and continuity of our proficiency schemes are guaranteed by an (inter) national expert group, consisting of experts from European / national reference laboratories, research institutions and (semi) government. Trilogy Europe B.V. is an active member of various NEN committees and the International Scientific Committee of Eurachem. In order to be able to assess the performance of participant reporting results below a limit of quantification, we have developed the unique Z-Score Arrow Ranges (ZSAR) method. This method has a great advantage over other statistical approaches as it allows to provide Z-scores for 'smaller than' results.



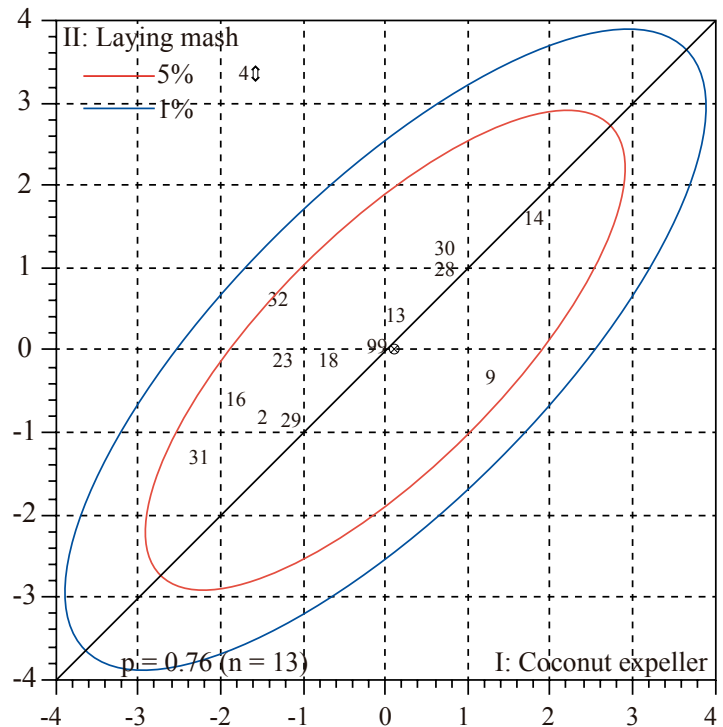
Statistics:	I	II
\bar{x}	197.8	144.7
X	198.8	144.6*
u_x	1.3	1.0
$u_{x_{rel}}$	0.7	0.7
s	2.5	1.7
$SDPA$	2.0	2.0*
R	7.1	4.9
R_{rel}	3.6	3.4
n	14	13
Z-scores:	I	II
Satisfactory	93%	93%
Questionable	7%	0%
Unsatisfactory	0%	7%

*Used for Z-score calculation

Crude protein - Kjeldahl -factor 6.25

Results:

lab nr	I g/kg	Z _I	II g/kg	Z _{II}
2	196	-1.5	143	-0.8
3	<200	-99.4:0.6	<175	-72.3:15.2
4	196	-1.6	151↑	3.3
7	199	0.0	145	0.1
9	201	1.3	144	-0.3
13	199	0.1	145	0.4
14	202	1.8	148	1.6
16	195	-1.8	143	-0.6
18	197	-0.7	144	-0.1
23	196	-1.2	144	-0.1
28	200	0.7	146	1.0
29	196	-1.2	143	-0.8
30	200	0.7	147	1.2
31	194	-2.3	142	-1.3
32	196	-1.3	146	0.6
99	199⊗	0.0	145⊗	0.0



Statistics

The statistics used for proficiency testing are described in international ISO standards. In a proficiency test model, all data and individual data are tested.

Common statistical characteristics in a proficiency test model are:

- 1 Average
- 2 (relative) Uncertainty average
- 3 Standard deviation
- 4 (relative) Reproducibility
- 5 Z-score

Other types of characteristics are also used and the choice of them depends on product groups and the type of proficiency test (qualitative vs quantitative). The Z-score is one of the most important value that is used to compare the results obtained by different laboratories. Z-score is a numerical measure that indicates how many standard deviations a laboratory result deviates from the average. At Trilog Europe B.V. we processes the results in accordance with ZSAR method. If a result deviates more than three times from the average ($Z = | \geq 3 |$), the relevant laboratory shall take corrective actions within the framework of its quality system. The laboratory can request a reference material from Trilog Europe B.V. to find out the cause of deviation.

Results of proficiency tests can be presented in distribution charts, Youden plots (XY diagrams) and tabular form (overall and individually).

The importance of reference material

Reference material is indispensable and is used for daily or regular quality assurance of:

- 1 Laboratory quality control samples (QCs)
- 2 Comparison of different analysis methods
- 3 Staff training
- 4 Validation, harmonization, troubleshooting of (new) analysis methods
- 5 Determining precision and accuracy of measuring equipment
- 6 Proficiency tests



ISO / IEC 17034 and 17025 standards

Certified reference materials (CRM) and reference materials (RM) offered by Trilogy Europe B.V. are prepared in accordance with the ISO / IEC 17034 standard. The quality and traceability of the reference materials are guaranteed by meeting the relevant requirements of ISO / IEC 17025 and ISO / IEC 17034 standards.

What can Trilogy do for you?

Trilogy Europe B.V. organises regular, company-tailored and ad hoc proficiency tests for your laboratory quality assurance. You can also choose for coded reference material samples to check your measurement results. We support laboratories to be quickly accredited by providing reference, blind or bilateral proficiency test samples.

If you are not satisfied with the (internal) measurements results in your laboratory, we offer support in the field of technology and statistics.

Would you like to know more on how we can help your laboratory?
Please contact us directly.

Contact Us

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