

Ring test Pesticides in hempseed oil P2625-RT



Summary

The entire report is available to participants only.

The ring test is designed, realised, evaluated, and authorised on behalf of
PROOF-ACS GmbH by

Dr. Birgit Schindler
Managing Director PROOF-ACS GmbH
Project coordinator

The report is approved by

Dr. Birgit Schindler

Participants with any comments or concerns related to this ring test are invited to contact:

PROOF-ACS GmbH
Gottlieb-Daimler-Str. 1
28237 Bremen
Phone: +49 421 388 928 50
E-mail: proof@proof-acs.de
www.proof-acs.de



PROOF-ACS is a DAkkS accredited proficiency testing provider according to DIN EN ISO/IEC 17043:2023 (D-EP-22211-01-00). This ring test is covered by the scope of accreditation.

PROOF-ACS GmbH does not have any analytical laboratory facilities of its own. Homogeneity testing and stability testing are subcontracted to laboratories, accredited according to DIN EN ISO 17025. The subcontracted laboratory may also participate in the ring tests. If so, the laboratory is treated in the same way as other participants and the same rules of confidentiality apply.

All reports issued by PROOF-ACS are copyright by PROOF-ACS GmbH ©PROOF-ACS GmbH 2013-2026. All Rights Reserved. The report may not be copied or duplicated in whole or in part by any means without prior permission of PROOF-ACS. Anyone wishing to use data for their own publications should first seek permission from PROOF-ACS. In general, citations of the data or the report in full or in part should follow the general rules for scientific citations.

Summary

The proficiency test evaluates the performances of laboratories with respect to their ability to quantify common pesticides, which are covered by multi-residue methods as well as the free acids of three common acidic herbicides.

The test material is prepared of organic hempseed oil. The unspiked material is provided as blank material upon request. The blank material is free from incurred residues of pesticides and acidic herbicides (free acids), which are included in common pesticide multi-residue methods.

The hempseed oil is spiked with 10 common pesticides as well as with 3 acidic herbicides. The identity of the spiked pesticides as well as the spiked levels are summarised in the table below.

The aim of the test is

- the correct *identification* of the spiked pesticides.
- the correct quantification with respect to the *trueness* of the results. The trueness is expressed as the coverage of the spiked level in %. The coverage should be at least between 70 and 120 % of the spiked level. The trueness criterion is applied to all parameters.
- the correct quantification with respect to the *comparability* of the results. The evaluation of the comparability is based on the z-score model. The absolute values of z-scores should be at least ≤ 2 . The comparability criterion is applied to all parameters.

17 laboratories across four countries (Germany, Italy, Netherlands, and Spain) took part in the proficiency test. 16 labs reported results and are considered for evaluation.

A summary of the results of the participants is provided in the table below.

None of the labs reported false negative or false positive results. 15 labs identified all spiked pesticides correctly, while tetramethrin is not within the scope of one of the labs.

All labs reported satisfying results related to azoxystrobin, cyproconazole, dimethomorph, methamidophos, myclobutanil, tetramethrin, and haloxyfop with respect to both, the comparability criterion and the trueness criterion.

9 out of 16 labs pass the comparability criterion and the trueness criterion with respect to all spiked pesticides.

Results:

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Assigned value in % of the spiked level	No. of results	No. of results with z-score ≤ 2	No. of results within 70-120 % of the spiked level
Azoxystrobin	0.028	0.0274	98	16	16	16
Bifenazate (sum)	0.36	0.349	97	16	14	12
Cyproconazole	0.18	0.185	103	16	16	16
Dimethomorph	0.093	0.0948	102	16	16	16
Methamidophos	0.072	0.0695	97	16	16	16
Myclobutanil	0.044	0.0448	102	16	16	16
Paclobutrazol	0.053	0.0535	101	16	16	15
Pyridaben	0.15	0.148	98	16	15	13
Spiromesifen	0.088	0.0858	97	16	16	15
Tetramethrin	0.11	0.109	99	15	15	15
Fluazifop-p	0.021	0.0177	84	16	16	14
Haloxifop	0.045	0.0453	101	16	16	16
MCPA	0.12	0.116	96	16	15	15