

# Ring test

## Polar pesticides in raspberry

### P2003-RT



## Summary

The entire report is available to participants only.

Designed, realised and evaluated by

**PROOF-ACS GmbH**  
**Bremen, Germany**

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A handwritten signature in blue ink that reads "Schindler". The signature is written in a cursive, flowing style.

Dr. Birgit Schindler

The proficiency test evaluates the performances of laboratories with respect to their ability to quantify polar pesticides in raspberries.

13 laboratories across four European countries (Germany, Italy, Netherlands, and Spain) took part in the test.

Organic raspberries are used as raw material. The raspberries are homogenised and tested for incurred residues thereafter. No incurred residues of the spiked parameters were detected in the blank material (RL: 0.01 mg/kg).

In order to prepare the test material, the raspberry homogenate is spiked with

*chlorate, perchlorate, phosphonic acid, BAC C-10, BAC C-12, BAC C-16, DDAC C-8, DDAC C-10 and DDAC C-12.*

The performance of laboratories in the test is evaluated according to

- the correct *identification* of the spiked quaternary ammonium compounds BAC C-10, BAC C-12, BAC C-16, DDAC C-8, DDAC C-10, DDAC C-12.
- the *comparability* of the results. The evaluation of the comparability is based on the z-score model. The z-score should be at least  $\leq |2|$ . The comparability criterion is applied to all parameters.
- 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.

## Results

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Total number of results	Comparability criterion: no. of participants, with z-score $\leq  2 $	Trueness criterion: no. of participants with results within 70-120 % recovery of the spiked level
Chlorate	0.085	0.0752	13	13	12
Perchlorate	0.018	0.0154	13	13	13
Phosphonic acid	0.082	0.0760	12	11	10
BAC C-10	0.028	0.0266	13	13	12
BAC C-12	0.045	0.0424	12	12	12
BAC C-16	0.022	0.0207	13	13	13
DDAC C-8	0.045	0.0424	12	12	11
DDAC C-10	0.035	0.0342	12	11	10
DDAC C-12	0.025	0.0229	12	12	12

BAC C-10: Benzyldimethyldecylammonium chloride; BAC C-12: Benzyldimethyldodecylammonium chloride; BAC C-16: Benzyldimethylhexadecylammonium chloride; DDAC C-8: Dimethyldioctylammonium chloride; DDAC C-10: Didecyldimethylammonium chloride; DDAC C-12: Didodecyldimethylammonium chloride