

# Ring test

## Polar pesticides in sweet pepper

### P2004-RT



## Summary

The entire report is available to participants only.

Designed, realised and evaluated by

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August 2020,



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

24 laboratories across eleven countries (Austria, Belgium, Bulgaria, Chile, Greece, Germany, Italy, Netherlands, Poland, Spain, and Vietnam) took part in the test.

Organic red sweet peppers, grown in Germany, are used as raw material. The sweet peppers are homogenised and tested for incurred residues thereafter. No incurred residues of perchlorate, ethephon and phosphonic acid were detected (RL: 0.01 mg/kg), while trace amounts of chlorate < 0.01 mg/kg were identified in the blank material.

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

*chlorate, perchlorate, ethephon, and phosphonic acid.*

The performance of laboratories in the test is evaluated according to

- 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 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.

## 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	0.073*	0.00617	15	not evaluated	not evaluated
Perchlorate	0.065	0.0521	24	22	20
Ethephon	0.061	0.0606	24	24	22
Phosphonic acid	0.046	0.0477	24	21	18

\* The spiked level of chlorate was not confirmed during homogeneity testing. Chlorate was thus not considered for evaluation.