

Ring test

Polar pesticides in onions

P2111-RT



Summary

The entire report is available to participants only.

Designed, realised and evaluated by

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

14 laboratories across four European countries (Belgium, Germany, Italy and Netherlands) took part in the test. It was up to the participants to analyse all polar pesticides or a selection of the parameters only. All labs analysed chlormequat and mepiquat, while 12 labs analysed cyromazine and maleic hydrazide and five labs analysed melamine and diquat.

Organic onions are used as raw material. The onions are homogenised and tested for incurred residues. The onion homogenate is free from incurred residues of all spiked parameters.

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

*cyromazine, chlormequat chloride, mepiquat chloride,
maleic hydrazide, melamine, and diquat.*

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 comparability criterion is not applicable to melamine and diquat due to the limited number of reported results.
- 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
Cyromazine	0.065	0.0703	12	12	8
Chlormequat chloride	0.033	0.0303	14	14	14
Mepiquat chloride	0.044	0.0403	14	14	14
Maleic hydrazide	1.1	1.07	12	12	12
Melamine	0.065	-	5	Not applicable	5
Diquat	0.055	-	5	Not applicable	3

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