Facing analytical quality.

rolling proof 2021

Module vegetables and fruits

Raspberries – P2119-RT

Summary

The entire report is available to participants only.

Designed, realised and evaluated by

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September 2021,

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rolling proof is developed to support laboratories in meeting the requirements of accreditation bodies. According to advisory document EA-4/18:2010 analytical laboratories are requested to establish a PT participation plan for accredited analytical methods. ***rolling proof*** is an on-going scheme of ring tests.

Two commodity groups (according to SANTE 12682/2019, Annex A) are included ***rolling proof*** - module "vegetables and fruits":

- vegetables and fruits (high water content),
- citrus fruits, small fruits and berries (high acid content).

Two test materials are provided related to the module "vegetables and fruits" in each year, one for each of the two commodity groups above.

In 2021, lettuce and raspberries are chosen as matrices for ***rolling proof*** – module "vegetables and fruits".

A list of pesticides is provided to the participating laboratories, which defines the scope of pesticides, covered by ***rolling proof***. The module "vegetables and fruits" covers all in all a minimum of 300 pesticides. All pesticides are tested within a period of six years. Thus, the laboratories that take part in ***rolling proof*** are able to test their pesticide multi-residue methods for a large number of pesticides and a variety of matrices within one cycle of accreditation.

It is up to the participants to join all tests of the 6-year programme of ***rolling proof***, or to book the tests individually. In 2021, 10 laboratories across six countries (Austria, Germany, Greece, Italy, South Africa, and Spain) took part in ***rolling proof*** module "vegetables and fruits" for one or both matrices.

The test materials were prepared of organic lettuce resp. raspberries. The raw materials were homogenised, tested for incurred residues and spiked with pesticides thereafter.

rolling proof evaluates the performance of the laboratories according to:

- The correct *identification* of the spiked pesticides.
- The *comparability* of the results. The evaluation of the comparability is based on the z-score model. The z-score should be at least ≤ |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.

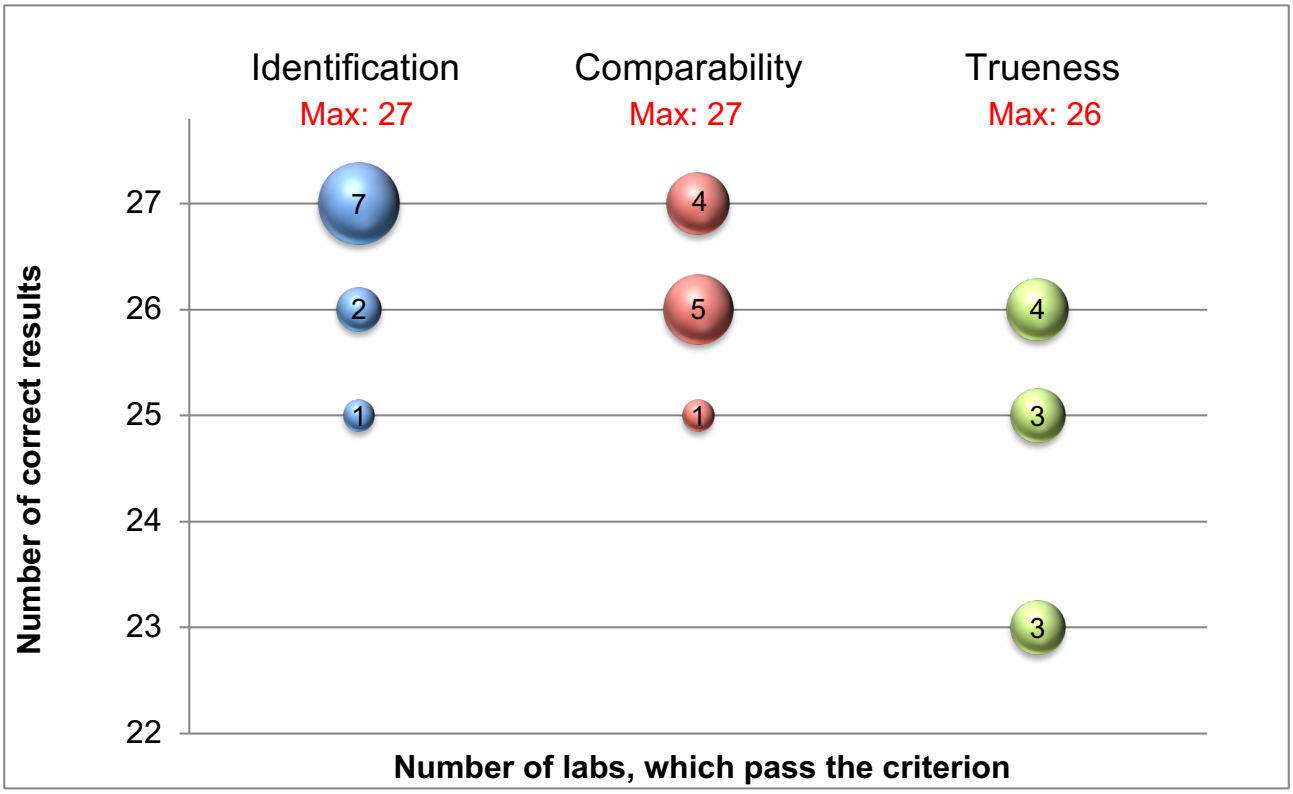
Test material raspberry (P2119-RT)

The test material raspberry was spiked with 27 pesticides. The identity of the pesticides, the spiked levels and a summary of the overall performance of the laboratories are provided in the table below.

Pesticide	Spiked level [mg/kg]	Assigned value [mg/kg]	Total number of results	**Comparability criterion:** No. of participants, which pass the criterion (z-score ≤ |2|)	**Trueness criterion:** No. of participants which pass the criterion (70-120 % recovery of the spiked level)
Azoxystrobin	0.13	0.124	10	10	10
Boscalid	0.047	0.0447	10	10	10
Chlorpyrifos-methyl	0.028	0.0252	10	10	10
Cyfluthrin	0.041	0.0378	9	9	9
Cyprodinil	0.097	0.0956	10	10	10
DEET	0.031	0.0315	10	10	9
Fenhexamid	0.11	0.110	10	10	10
Fenpyroximate	0.038	0.0364	10	10	10
Fluazinam	0.027	0.0258	9	9	9
Fludioxonil	0.088	0.0862	10	10	10
Hexythiazox	0.069	0.0697	10	10	9
Iprodione	0.032	0.0319	10	9	9
Kresoxim-methyl	0.028	0.0269	10	10	10
Myclobutanil	0.026	0.0249	10	10	10
Phosalone	0.044	0.0416	10	10	10
Piperonyl butoxide	0.035	0.0334	10	10	10
Pirimicarb	0.092	0.0925	10	10	10
Procymidone	0.055	0.0495	10	10	9
Propyzamide	0.025	0.0232	10	10	9
Pyraclostrobin	0.066	0.0676	10	10	10
Pyrimethanil	0.21	0.204	10	10	10
Spirodiclofen	0.030*	0.0142	9	9	Not evaluated
Tebuconazole	0.048	0.0483	10	10	9
Tebufenpyrad	0.069	0.0709	10	10	10
Tetraconazole	0.062	0.0602	10	10	10
Tolylfluanid (sum)	0.072	0.0670	9	7	7
Trifloxystrobin	0.029	0.0295	10	10	10

* The spiked level of spirodiclofen is provided for information only. Degradation of spirodiclofen was observed during preparation of the test material.

Raspberry – Summary of the performances of participating laboratories:



Total No of labs: 10