Facing analytical quality.

rolling proof 2020

Module vegetables and fruits

Fresh peas – P2011-RT

Summary

The entire report is available to participants only.

Designed, realised and evaluated by

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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 2020, grapes and fresh peas 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 2020, 14 laboratories across six countries (Austria, Germany, Italy, South Africa, Spain, and Switzerland) took part in ***rolling proof*** module "vegetables and fruits" for one or both matrices.

The test materials were prepared of organic grapes resp. fresh peas. 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.

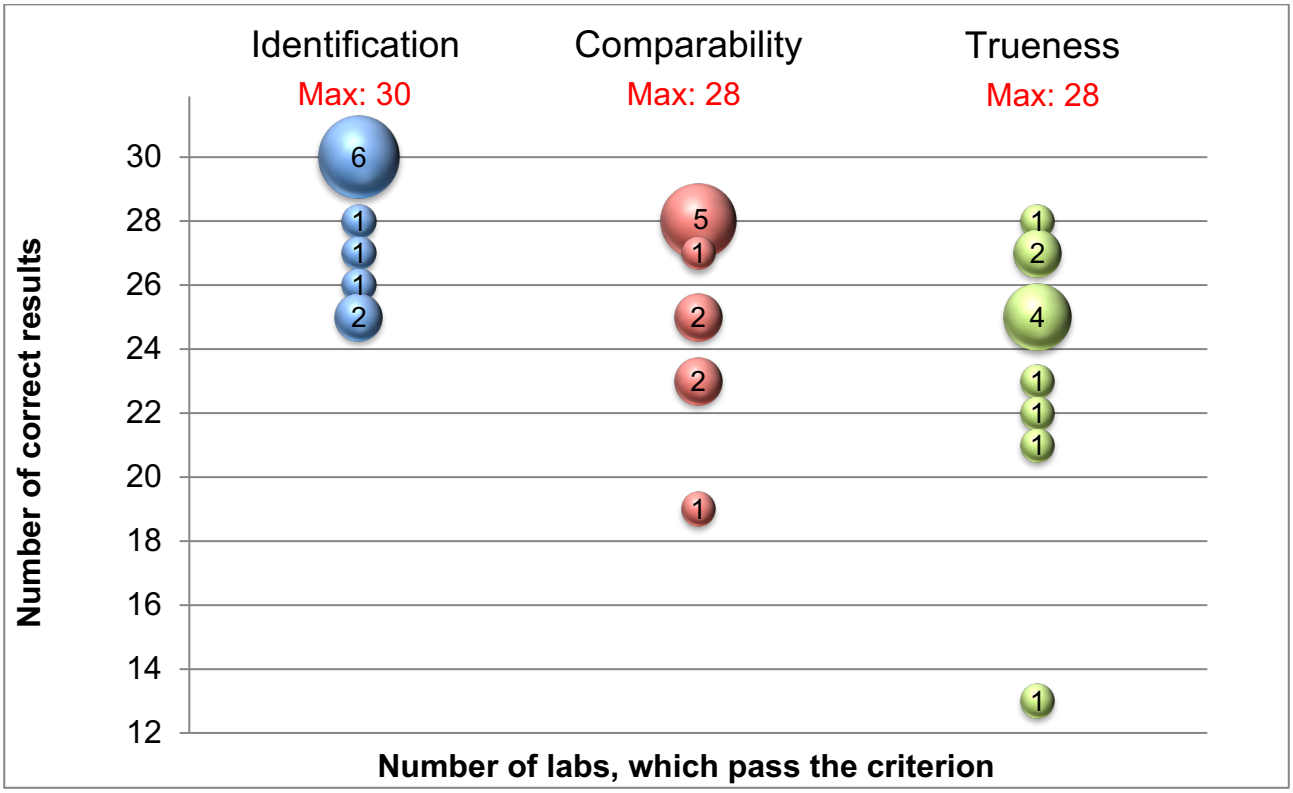
Test material fresh peas (P2011-RT)

The test material fresh peas was spiked with 31 pesticides, 30 pesticides are considered for evaluation. 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)
2,4`-DDD	0.055	0.0536	11	11	9
Bentazone	0.024	0.0308	10	9	6
Boscalid	0.074	0.0741	11	11	11
Carbosulfan (sum)	0.030*	0.0312	9	Not evaluated	
Chlordane trans	0.033	0.0335	11	10	10
Chlorfenson	0.029	0.0281	10	10	10
Clomazone	0.037	0.0361	11	11	11
λ-Cyhalothrin	0.038	0.0332	11	10	9
Diafenthiuron	0.051*	-	3	Not evaluated	
Dichlofenthion	0.071	0.0684	11	11	10
Disulfoton (sum)	0.043	0.0434	10	10	9
Fenchlorphos	0.057	0.0541	9	9	9
Flonicamid	0.15	0.141	10	9	9
α-HCH	0.019	0.0185	11	11	11
Heptachlor epoxide trans	0.016	0.0158	8	8	8
Heptenophos	0.025	0.0308	11	10	6
Imazalil	0.055	0.0475	11	10	10
Imidacloprid	0.12	0.125	11	11	9
Isofenphos	0.027	0.0266	10	10	10
Methabenzthiazuron	0.028	0.0280	11	10	9
Methiocarb	0.069	0.0754	11	11	11
Methoxychlor	0.020	0.0197	8	8	6
Nitenpyram	0.11	0.100	11	10	10
Pirimicarb	0.042	0.0412	11	11	10
Profluralin	0.032	0.0297	10	9	9
Propachlor	0.088*	0.0185	10	Not evaluated	
Quintozene	0.052	0.0465	10	10	10
Quizalofop-ethyl	0.044	0.0440	11	11	11
Spinosad	0.029	0.0286	11	11	10
Sulfotep	0.067	0.0599	10	10	10
Tepraloxydim	0.035	0.0390	11	10	8

* The spiked levels of carbosulfan, diafenthiuron and propachlor are provided for information only.

Fresh peas – Summary of the performances of participating laboratories:



Total No of labs: 11