DLA
Dienstleistung
Lebensmittel
Analytik GbR

Evaluation Report
proficiency test

25/2014

GMO - Screening qualitative:

5 Samples with positive/negative amounts of other GMOs in Papaya, Rape and Honey

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1. Introduction

The participation in proficiency testing schemes is an essential element of the quality-management-system of every laboratory testing food and feed, cosmetics and food contact materials. The implementation of proficiency tests enables the participating laboratories to prove their own analytical competence under realistic conditions. At the same time they receive valuable data regarding the validity of the particular testing method.
The purpose of DLA is to offer proficiency tests for selected parameters in concentrations with practical relevance.
Realisation and evaluation of the present proficiency test follows the technical requirements of DIN EN ISO/IEC 17043 (2010) and DIN ISO 13528:2009.

2. Realisation

2.1 Test material

The test materials are 5 different mixtures of common in commerce foods from European and non-EU suppliers (s. table 1).
The ingredients were mixed, homogenized and portioned to approximately 10 g.
The materials were tested for homogeneity.

2.2 Test

One portion of each of the 5 test materials was sent to every participating laboratory in the 28th week of 2014. The testing method was optional. The tests should be finished at August 22nd2014 the latest.

2.3 Submission of results

The participants submitted their results in standard forms, which have been handed out along with the samples. The results given as positive/negative were evaluated with respect to each tested parameter.
Queried and documented were the indicated results and details of the test methods like specifity, test kit manufacturer and hints about the procedure.
All participants submitted their results in time.

Table 1: Composition of DLA-samples

DLA-Sample	Ingredients (per 100 g)	GMO-Con-tent
1	Papaya-Mixture (100 g) Ingredients: Potato flour, **papaya dried** (33%), sugar	-
2	Candied Papaya-Mixture (100 g) Ingredients: Potato flour, **papaya candied** with papaya, sugar and preservative E220 (34%), maize flour	positive (35S or NOS, experimental)
3	Rape Oilcake, European Supplier (100 g) Ingredients: Rape oilcake	positive (35S or NOS, experimental)
4	Maize Flour, European-Supplier (85 g) Ingredients: Maize Flour Nutrients per 100 g: Protein 7,5 g, Carbohydrates 77 g, Fat 1 g	-
5	Honey Mixture, EU- and Non-EU Countries (100 g) Ingredients: several Honeys	positive (35S or NOS, experimental)

3. Evaluation

The evaluation of the GMO-screening proficiency test was done exclusively qualitative.

The results are presented for all 5 test samples in separate tables for each parameter 35S, NOS, Papaya-DNA and Rape-DNA and other DNA results. The numbers and percentage of positive and negative results are given at the end of each table. If there are ≥ 75 % positive or negative results, a consensus result is determined for each sample.

For every participant a qualitative valuation is made with respect to the consensus results. Therefore the number and percentage of "correct" results of consensus results is given.

4. Results

All following tables are anonymized. With the delivering of the evaluation-report the participants are informed about their individual evaluation-number.

The results of the participants are given in tables as indicated below:

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 4	Qualitative Valuation	Remarks
Parameter	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus results	

4.1 Test

4.1.1 Results: 35S-Screening-Sequence

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
35S	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1	negative	positive	positive	positive	negative	3/4 (75%)	
2	negative	positive	positive	positive	positive	3/4 (75%)	
3	negative	positive	positive	negative	positive	4/4 (100%)	
4	negative	positive	positive	negative	negative	4/4 (100%)	
5	negative	positive	positive	negative	positive	4/4 (100%)	Sample 3: w eakly positive ct 35,5; Sample 5: w eakly positive ct 36,9
6	negative	positive	positive	negative	negative	4/4 (100%)	Sample 5: traces
7					positive		
8	negative	positive	positive	negative	positive	4/4 (100%)	
9	negative	positive	positive	negative	negative	4/4 (100%)	Sample 2: 8,35%, Sample 3: 40,09%
10	negative	positive	negative	negative	negative	3/4 (75%)	

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	0	9	8	2	5
Number negative	9	0	1	7	5
Percent positive	0	100	89	22	50
Percent negative	100	0	11	78	50
Consensus	negative	positive	positive	negative	none

Comments on results:

There were consensus values obtained for 4 samples with two times 100%, 89% and 78% positive or negative results. For sample 5 (honey) one half of results were positive and the other negative.

4.1.2 Results: NOS-Screening-Sequence

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
NOS	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1	negative	positive	positive	positive	negative	3/4 (75%)	
2	negative	positive	positive	positive	negative	3/4 (75%)	
3	negative	positive	positive	negative	positive	4/4 (100%)	
4	negative	positive	positive	negative	negative	4/4 (100%)	
5	negative	positive	positive	negative	positive	4/4 (100%)	Sample 3: weakly positive ct 35,6; Sample 5: weakly positive ct 37,0
6	negative	positive	positive	negative	negative	4/4 (100%)	
7					positive		
8	negative	positive	positive	negative	positive	4/4 (100%)	
9	negative	positive	positive	negative	negative	4/4 (100%)	Sample 2: 6,48%, Sample 3: 46,44%
10	negative	positive	negative	negative	negative	3/4 (75%)	

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	0	9	8	2	4
Number negative	9	0	1	7	6
Percent positive	0	100	89	22	40
Percent negative	100	0	11	78	60
Consensus	negative	positive	positive	negative	none

Comments on results:

There were consensus values obtained for 4 samples with two times 100%, 89% and 78% positive or negative results. For sample 5 (honey) about one half of results were positive and the other negative.

4.1.3 Results: Papaya-specific DNA

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
Papaya	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1						-	
2						-	
3	positive	negative	negative	negative		-	
4						-	
5						-	
6	positive	negative	negative	negative	negative	-	
7						-	
8						-	
9	positive	negative	negative	negative	negative	-	
10						-	

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	3	0	0	0	0
Number negative	0	3	3	3	2
Percent positive	100	0	0	0	0
Percent negative	0	100	100	100	100
Consensus	-	-	-	-	-

Comments on results:

Only three participants tested the samples for specific papaya-DNA. Therefore no consensus values were set. In sample 1 (containing dried papaya) all three participants detected papaya. In sample 2 candied papaya fruit was contained, which could not be detected by the participants. In samples 3, 4 and 5 no papaya was added.

4.1.4 Results: GMO-Papaya

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
GMO-Papaya	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1						-	
2						-	
3	negative					-	
4						-	
5						-	
6	negative	negative	negative	negative		-	
7						-	
8						-	
9	negative					-	
10						-	

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	0	0	0	0	0
Number negative	3	1	1	1	0
Percent positive	0	0	0	0	0
Percent negative	100	100	100	100	0
Consensus	-	-	-	-	-

Comments on results:

Only three participants tested the samples for specific papaya-DNA. Therefore no consensus values were set. There were exclusively negative results.

4.1.5 Results: Rape-specific DNA

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
Rape DNA	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1							
2							
3	negative	negative	positive	negative	positive	2/2 (100%)	
4							
5							
6	negative	negative	positive	negative	positive	2/2 (100%)	Sample 1: traces
7							
8		positive	negative		negative	0/2 (0%)	
9	negative	negative	positive	negative	negative	2/2 (100%)	
10							

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	0	1	3	0	2
Number negative	3	3	1	3	2
Percent positive	0	25	75	0	50
Percent negative	100	75	25	100	50
Consensus	-	negative	positive	-	none

Comments on results:

Only four participants tested the samples for specific rape-DNA. Consensus values were obtained for samples 2 and 3, for which four results and 75% negative and positive results were submitted. The consensus values are in agreement with the addition of rape to samples 2 (rape not added) and 3 (added).

4.1.6 Results: GMO Rape

Evaluation number	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Qualitative Valuation	Remarks
GMO-Rape	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg	Agreements with consensus value	
1							
2							
3	negativ	negativ	positive	negativ	positive		
4							
5							
6	negativ	negativ	negativ	negativ	negativ		
7							
8		positive	negativ		negativ		
9							
10							

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Number positive	0	1	1	0	1
Number negativ	2	2	2	2	2
Percent positive	0	33	33	0	33
Percent negativ	100	67	67	100	67
Consensus	-	-	-	-	-

Comments on results:

Only three participants tested the samples for GMO-rape. Therefore no consensus values were set.

4.1.7 Results: Other Parameters (DNA)

Evaluation number	Parameter	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
	Other DNA	pos/neg	pos/neg	pos/neg	pos/neg	pos/neg
1	FMV	negative	negative	negative	negative	negative
3a	bar	negative	negative	negative	negative	negative
3b	pat	negative	positive	negative	negative	negative
3c	CTP2-CP4 EPSPS	negative	positive	negative	negative	negative
3d	Maize specific	negative	positive	positive	positive	negative
3e	Maize GVO	negative	positive		negative	negative
4a	FMV	negative	negative	negative	negative	negative
4b	RR-Soya	negative	positive	positive	negative	negative
5	FMV	negative	negative	negative	negative	negative
7a	MON 40-3-2					positive
7b	Maize und Raps					positive
8a	Maize specific	n.d.	positive	negative	n.d.	negative
8b	Maize MON810	n.d.	positive	negative	n.d.	negative
8c	Maize LLT25	n.d.	positive	negative	n.d.	negative
8d	Soya specific	n.d.	negative	positive	n.d.	schwach positive
8e	Soya RRS I	n.d.	negative	positive	n.d.	schwach positive
8f	trans-EPSPS	negative	positive	negative	negative	negative
8g	syn-PAT	negative	positive	negative	negative	negative
8h	bar	negative	negative	negative	negative	negative
8i	SAMS-HRA	negative	negative	negative	negative	negative
8j	DNA-extraction	NucleoSpin	NucleoSpin	NucleoSpin	NucleoSpin	CTAB
9a	Mir604	-	0,10%	negative	-	-
9b	TC1507	-	0,20%	negative	-	-
9c	Mon88017	-	5,80%	negative	-	-
9d	Mon810	-	4,10%	negative	-	-
9e	NK603	-	4,10%	negative	-	-
9f	GA21	-	0,01%	negative	-	-
9g	Mon863	-	0,40%	negative	-	-
9h	T25	-	0,30%	negative	-	-
9i	59122	-	4,10%	negative	-	-
9j	98140	-	negative	positive	-	-
9k	Pat	negative	0,15%	negative	negative	negative
9l	EPSPS	negative	0,07%	negative	negative	negative
9m	Bar	negative	negative	negative	negative	negative
9n	FMV	negative	negative	negative	negative	negative
9o	Roundup ready	-	-	51,40%	-	
9p	Soya specific	negative	negative	positive	negative	
9q	Maize specific	negative	positive	positive	positive	
10a	FMV	negative	negative	negative	negative	negative
10b	Bar	negative	negative	negative	negative	negative

5. Documentation

5.1 Details by participants about DNA-Extraction methods

5.1.1 35S-Screening Sequence

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1	35S	R-Biopharm	according to manual, SureFood Prep Plant X, Art. No. S1006
2			
3		ASU (§64 LFGB) L 00.00-122	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4		r-biopharm	FFS-Kit (Promega)
5	35S	Congen 35S/nos/FMV Monoplex	Congen Prep PLANT Extraction kit
6	35S-Promotor	DIN EN ISO 21570:20096	Macherey and Nagel Nucleospin
7			
8			
9		AllGVOSc B, Köppel	Promega Wizard
10		Biotecon, foodproof GMO Screening Kit	Surefood GMO Plant and Plant X

5.1.2 NOS-Screening Sequence

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1	NOS	R-Biopharm	according to manual, SureFood Prep Plant X, Art. No. S1006
2			
3		ASU (§64 LFGB) L 00.00-122	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4		r-biopharm	FFS-Kit (Promega)
5	nos	Congen 35S/nos/FMV Monoplex	Congen Prep PLANT Extraction kit
6	NOS-Terminator	DIN EN ISO 21570:20096	Macherey and Nagel Nucleospin
7			
8			
9		AllGVOSc B, Köppel	Promega Wizard
10		Biotecon, foodproof GMO Screening Kit	Surefood GMO Plant and Plant X

5.1.3 Papaya specific DNA

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1			
2			
3	Papain	Xu et al (2008) Eur Food Res Technol 228: 301-309.	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4			
5			
6	Papain-Gene	LFGB L29:00-9	
7			
8			
9	Papain	Wall et al., 2004	Promega Wizard
10			

5.1.4 GMO Papaya

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1			
2			
3			CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4			
5			
6			
7			
8			
9	55-1	Wall et al., 2004	Promega Wizard
10			

5.1.5 Rape-specific DNA

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1			
2			
3	PEP	Methods according to § 28 GenTG: Method G 30.40–1	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4			
5			
6	cruziferin A-Gene	CRLVL26/04VP	
7			
8			
9	Cruciferin A	Laube et al., 2008	Promega Wizard
10			

5.1.6 GMO Rape

Evaluation number	Result given as	Test-Kit or Literature	Remarks to DNA-Extraction
	Target-Sequenz / -DNA	Supplier / Method	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
1			
2			
3			CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
4			
5			
6			
7			
8	Rape GT73		
9			
10			

5.1.7 Other Parameters (DNA)

Parameter	Evaluation number	Results given as	Test-Kit or Literature	Remarks to DNA-Extraction
		Target-Sequence	Supplier / Methdd	e.g. Extraction / Enzymes / Clean-Up / DNA-Quality
other	1	FMV	R-Biopharm	according to manual, SureFood Prep Plant X, Art. Nr. S1006
other	3a	bar	ASU (§64 LFGB) L 00.00-154 (08/2014)	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
other	3b	pat	ASU (§64 LFGB) L 00.00-154 (08/2014)	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
other	3c	CTP2-CP4 EPSPS	ASU (§64 LFGB) L 00.00-154 (08/2014)	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
Maize specific	3d	hmg	Hernandez M. et al (2004) J. Agric. Food Chem. 52:4632-4637	CTAB/QIAquick Purification Kit for samples 1-4; sample 5 honey : ASU L 40.00-14
Maize GVO	3e			
FMV	4a		r-biopharm	FFS-Kit (Promega)
RR-Soya	4b		r-biopharm	FFS-Kit (Promega)
other	5	FMV	Congen 35S/nos/FMV Monoplex	Congen Prep PLANT Extraction kit
other	7a	MON 40-3-2		
other	7b	Maize and Rape		
Maize specific	8a			
Maize MON810	8b			
Maize LLT25	8c			
Soya specific	8d			
Soya RRS I	8e			
trans-EPSPS	8f			
syn-PAT	8g			
bar	8h			
SAMS-HRA	8i			
DNA-Extraktion	8j			
Mir604	9a		AllMaizeF, Köppel	Promega Wizard
TC1507	9b		AllMaizeF, Köppel	Promega Wizard
Mon88017	9c		AllMaizeE, Köppel	Promega Wizard
Mon810	9d		AllMaizeC, Köppel	Promega Wizard
NK603	9e		AllMaizeD, Köppel	Promega Wizard
GA21	9f		AllMaizeE, Köppel	Promega Wizard
Mon863	9g		AllMaizeC, Köppel	Promega Wizard
T25	9h		AllMaizeC, Köppel	Promega Wizard
59122	9i		AllMaizeE, Köppel	Promega Wizard
98140	9j		AllMaizeF, Köppel	Promega Wizard
Pat	9k		AllGVOSc C, Köppel	Promega Wizard
EPSPS	9l		AllGVOSc C, Köppel	Promega Wizard
Bar	9m		AllGVOSc C, Köppel	Promega Wizard
FMV	9n		AllGVOSc C, Köppel	Promega Wizard
Roundup ready	9o		AllSoyA, Köppel	Promega Wizard
Soya specific	9p	Lectin	AllGVOSc B, Köppel	Promega Wizard
Maize specific	9q	mhmg	AllGVOSc B, Köppel	Promega Wizard
FMV	10a	FMV	Biotecon, foodproof GMO Screening Kit	Surefood GMO Plant und Plant X
Bar	10b	Bar	Biotecon, foodproof GMO Screening Kit	Surefood GMO Plant und Plant X

5.2 Details by participants to PCR-reaction

5.2.1 35S-Screening Sequence

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1	Real Time PCR, SureFood GVO Screening 4plex, Art. No. S2126	
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
4	real time PCR, 45 cycles	
5	Real Time PCR, 45 Cycles, Reference material ERM-BF 410dk	positive*: weakly positive ct 35,5 positive**: weakly positive ct 36,9
6	Real Time PCR	
7		
8	RealTime-PCR	
9		
10	Real Time PCR, Stratagene MX3005P, 50Cycles	

* sample 3

** sample 5

5.2.2 NOS-Screening Sequence

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1	Real Time PCR, SureFood GVO Screening 4plex, Art. No. S2126	
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
4	real time PCR, 45 cycles	
5	Real Time PCR, 45 Cycles, Reference material ERM-BF 410dk	positive*: weakly positive ct 35,6 positive**: weakly positive ct 37,0
6	Real Time PCR	
7		
8	RealTime-PCR	
9		
10	Real Time PCR, Stratagene MX3005P, 50Cycles	

* sample 3

** sample 5

5.2.3 Papaya-specific DNA

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1		
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
4		
5		
6		
7		
8		
9		
10		

5.2.4 GMO Papaya

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1		
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	direct GMO determination was not performed; only screening results were valuated
4		
5		
6		
7		
8		
9		
10		

5.2.5 Rape-specific DNA

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1		
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
4		
5		
6		
7		
8	RealTime-PCR	
9		
10		

5.2.6 GMO Rape

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1		
2		
3	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	direct GMO determination was not performed; only screening results were valuated
4		
5		
6		In sample 3 evtl. GMO-Rape present? (oxy235?)
7		
8	RealTime-PCR	
9		
10		

5.2.7 Other Parameters (DNA)

Evaluation number	Notes to PCR-Reaction	Further Remarks
	e.g. Real Time PCR / Gel electrophoresis / Cycles / Lenght of Amplificates / Reference material	
1	Real Time PCR, SureFood GMO Screening 4plex, Art. No. S2126	
3a	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
3b	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
3c	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
3d	Real Time PCR each. evaluation by comparision with DNA-Standard on plasmid basis (10 copies). Ct-values of samples, which are about 1 or more above Ct of Standard-DNA, were valuated "negative"	
3e		direct GMO determination was not performed; only screening results were valuated
4a	real time PCR, 45 cycles	
4b	real time PCR, 45 cycles	
5	Real Time PCR, 45 cycles, refercence material ERM-BF 410dk	
7a		
7b		
8a	RealTime-PCR	
8b	RealTime-PCR	
8c	RealTime-PCR	
8d	RealTime-PCR	
8e	RealTime-PCR	
8f	RealTime-PCR	
8g	RealTime-PCR	
8h	RealTime-PCR	
8i	RealTime-PCR	
8j		
9a		% GMO related to Soya- or Maize part
9b		% GMO related to Soya- or Maize part
9c		% GMO related to Soya- or Maize part
9d		% GMO related to Soya- or Maize part
9e		% GMO related to Soya- or Maize part
9f		% GMO related to Soya- or Maize part
9g		% GMO related to Soya- or Maize part
9h		% GMO related to Soya- or Maize part
9i		% GMO related to Soya- or Maize part
9j		% GMO related to Soya- or Maize part
9k		
9l		
9m		
9n		
9o		% GMO related to Soya- or Maize part
9p		
9q		
10a	Real Time PCR, Stratagene MX3005P, 50cycles	
10b	Real Time PCR, Stratagene MX3005P, 50cycles	

6. Index of participant laboratories

Teilnehmer / Participant	Ort / Town	Land / Country
		THAILAND
		GERMANY
		GERMANY
		GERMANY
		GERMANY
		GERMANY
		SWITZERLAND
		GERMANY
		GERMANY
		GERMANY

[The address data of the participants were deleted for publication of the evaluation report.]

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