

NF VALIDATION
Validation of alternative analysis methods
Application to the food industry

Summary report
according to the standard EN ISO 16140-2:2016

Quantitative method

REBECCA base & REBECCA+EB
Certificate # AES 10/06-01/08
for the enumeration of β -glucuronidase positive
***Escherichia coli* in food and feed products**

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Version 0

December 31, 2019

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Preamble

- Protocols of validation :

- EN ISO 16140-1 and NF EN ISO 16140-2 (September 2016): Microbiology of the food chain — Method validation
Part 1: Vocabulary.
Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.
- Requirements regarding comparison and interlaboratory studies for implementation of the standard EN ISO 16140-2 (version 6).

- Reference method:

- **NF ISO 16649-2 (July 2001):** horizontal method for the enumeration of β -glucuronidase positive *Escherichia coli*– Colony count technique at 44°C using 5-bromo-4-chloro-3-indolyl β -glucuronate

- Application scope:

- **All human food products** by a validation testing of a broad range of foods, including:
 - meat products,
 - dairy and egg products,
 - seafood products,
 - vegetal products,
 - ready-to-eat and ready-to-reheat products,
- **Feeds.**

- Certification body:

- **AFNOR Certification** (<https://nf-validation.afnor.org/>).

Definitions

- Method comparison study

The method comparison study is the part of the validation process that is performed in the expert laboratory. It consists of four parts:

- A comparative study of the results of the reference method to the results of the alternative method in a variety of different items (naturally and/or artificially) contaminated samples (so-called relative trueness study).
- A comparative study of the results of the reference method to the results of the alternative method in artificially contaminated samples using replicates of a single item per category. The data are analyzed using the accuracy profile (AP) approach (so-called AP study).
- An inclusivity/exclusivity study of the alternative method.

- Relative trueness study

The relative trueness study is a comparative study between the results obtained by the reference method and the results of the alternative method.

The relative trueness is the degree of correspondence between the response obtained by the reference method and the response obtained by the alternative method on identical samples.

- Accuracy profile study

The accuracy profile study is a comparative study between the results obtained by the reference method and the results of the alternative method.

The accuracy profile is the graphical representation of the capacity of measurement of the quantitative method, obtained by combining acceptability intervals and β -expectation tolerance intervals, both reported to different levels of the reference value.

- Inclusivity and exclusivity study

The inclusivity study is a study involving pure target strains to be detected or enumerated by the alternative method.

The exclusivity study is a study involving pure non-target strains, which can be potentially cross-reactive, but are not expected to be detected or enumerated by the alternative method.

- Interlaboratory study

The interlaboratory study is a study performed by multiple laboratories testing identical samples at the same time, the results of which are used to estimate alternative-method performance parameters.

The aim of an interlaboratory study is to determine the variability of the results obtained in different laboratories using identical samples.

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Appendix A: Protocol of the alternative method

Appendix B: Protocol of the reference method

Appendix C: Artificial contaminations

Appendix D: Relative trueness study - Raw results

Appendix E: Relative trueness study - Statistical calculations

Appendix F: Accuracy profile study - Raw results

Appendix G: Selectivity - Raw results

Appendix H: Interlaboratory study - Raw results

1. Introduction

REBECCA™ Base and REBECCA™ + EB methods are validated by AFNOR Certification under the NF VALIDATION mark with the certification number AES 10/06-01/08 according to the standard ISO 16140/A1:2011. The method is intended for all human food products and feed products since its initial validation.

Table 1 summarizes the different steps of the validation that occurred since the initial validation.

Table 1: Steps of the validation AFNOR certification

Study	Date	Standard	Expert Laboratory	Observation
Initial validation	2008	ISO 16140:2003	Institut Scientifique d'hygiène et d'Analyse	/
First renewal	October 2011	ISO 16140/A1:2011	Institut Scientifique d'hygiène et d'Analyse	/
Second renewal	October 2015	ISO 16140/A1:2011	Institut Scientifique d'hygiène et d'Analyse	/
Third renewal	November 2019	ISO 16140-2:2016	Microsept	Additional tests to fulfill the updated validation standard and reinterpretation

The present summary report introduces all the validation steps results for the AFNOR Certification validation of the REBECCA™ Base and REBECCA™ + EB methods according to the standard ISO 16140-2:2016 for a broad range of foods and for feeds.

A part of the results set out in this report were produced during validation tests carried out by Institut Scientifique d'hygiène et d'Analyse as part of NF Validation, in accordance with prevailing requirements.

The remaining part of the results is constituted by the analyses performed by the Laboratory Microsept as part of the requirements of the updated validation standard.

2. Protocols of the methods

2.1. Alternative method

2.1.1. Principle of the method

REBECCA is a selective medium for the enumeration of β -D-glucuronidase-positive *Escherichia coli* and Enterobacteriaceae (non *E. coli*) in food products.

This medium is a chromogenic medium for the direct enumeration without confirmation in products for human and animal consumptions of:

- β -D-glucuronidase-positive *E. coli*,
- β -D-glucuronidase-positive *E. coli* and Enterobacteriaceae (non *E. coli*).

The enumeration of *E. coli* is done by the detection of β -D-glucuronidase coloring the colonies in blue with or without a blue halo.

The screening of other Enterobacteriaceae (non *E. coli*) is done by the addition to REBECCA™ base of a specific supplement that colors the colonies in pink to red.

The mixture of selective agents inhibits the growth of the interfering flora.

2.1.2. Protocol of the method

The diagram summarizing the method is shown in appendix A.

From an initial suspension realized according to the prescriptions of the ISO 6887 standard, or directly from a liquid sample, REBECCA plates are inoculated as described below:

- For surface inoculation: inoculate by spreading 0.1 mL of the primary dilution and of its decimal dilutions onto the surface of a 90 mm REBECCA™ plate dried beforehand in an incubator. In the case of the estimation of small numbers, it is possible to spread 1 mL of inoculum either onto the surface of a 140 mm Petri plate or onto the surface of three 90 mm Petri plates.
- For inoculation by pour-plate: place 1 mL of initial suspension or decimal dilutions in a Petri dish. Use one plate per dilution. Add approximately 15 mL of molten REBECCA™ medium (maintained at +44 to +47°C). Mix well and leave to cool and set on a flat horizontal surface.

The inoculated plates are incubated at 37±1°C for 24±2 h.

After incubation, observe the microbial growth and the appearance of the colonies:

- β -D-glucuronidase-positive *E. coli* grow as blue colonies with or without halo.
- Enterobacteriaceae (non *E. coli*) grow as pink to red colonies.

Following the period of incubation, count the number of typical colonies for each dish containing, if possible, more than 10 and less than 150 typical colonies, but no more than 300 colonies (typical or atypical).

2.1.3. Restrictions

There are no restrictions on use for the REBECCA method.

2.2. Reference method

The ISO 16649-2:2001 standard, Horizontal method for the enumeration of β -glucuronidase positive *Escherichia coli*– Colony count technique at 44°C using 5 bromo-4-chloro-3-indolyl β -glucuronate, was used for the initial validation study, for the first and the second renewal studies and for the present renewal study.

The workflow of the reference method is presented in Appendix B.

3. Methods comparison study

3.1. Relative trueness study

3.1.1. Number and nature of the samples

Considering all the steps of the validation:

- 90 samples were analyzed during the initial validation study,
- 102 samples were analyzed during the third renewal study.

Overall, 192 samples were analyzed giving:

- 104 exploitable results for the REBECCA method with the surface spreading technique modality,
- 105 exploitable results for the REBECCA method with for the pour plate modality,
- 100 exploitable results for the REBECCA+EB method with the surface spreading technique modality,
- 105 exploitable results for the REBECCA+EB method with for the pour plate modality.

The distribution of the samples per category, type and inoculation technique is given in table 2.

3.1.2. Artificial contaminations

Artificial contaminations were performed using spiking and seeding protocols. The strains used, and the contamination protocols are presented in Appendix C.

Not inoculated samples were also used: 130 of them were analyzed that led to the obtention of 47 interpretable results. Naturally contaminated samples represent thus 44.8% of the results.

3.1.3. Protocols used during the study

The two modalities of enumeration of the alternative method were tested: surface spreading and pour plates. The minimum incubation times of the Petri dishes was applied, namely 22 hours at $37\pm 1^{\circ}\text{C}$.

3.1.4. Results

Samples were analyzed by the reference and the alternative method so as to obtain at least 15 interpretable results per category and at least 5 per type.

As results were available in duplicates concerning the initial validation study, only the first replicate was considered as part of the calculations of the EN ISO 16140-2:2016 standard.

Raw results are shown in appendix D.

Three kinds of results are not considered as part of the statistical calculations:

- Those expressed with less than 4 colonies per Petri dish for at least one method or inoculation modality,
- those lower or higher than the quantification limits,
- Undetermined results.

All results are presented in scatter plots per category and modality of inoculation in figures below:

- Figures 1 to 4: scatter plots for the REBECCA method:
 - o Figure 1: surface spreading technique plots for each category,
 - o Figure 2: pour plates method for each category,
 - o Figures 3 and 4: scatter plots for all categories per plating technique.
- Figures 5 and 8: scatter plots for the REBECCA+EB method:
 - o Figure 5: surface spreading technique plots for each category,
 - o Figure 6: pour plates method for each category,
 - o Figures 7 and 8: scatter plots for all categories per plating technique.

On scatter plots:

- Each type of food is differentiated per type on individual category scatter plots: blue circle: type a / orange diamond: type b / green triangle: type c
- Results expressed with less than 4 colonies per Petri dish for at least one method are indicated by a yellow square,
- Results lower or higher than the quantification limits for one method are indicated by a red square. The value of these results is corrected according to the EN ISO 16140-2:2016 requirements.

Figure 1: Two-dimensional plots per category, using the surface spreading inoculation for REBECCA

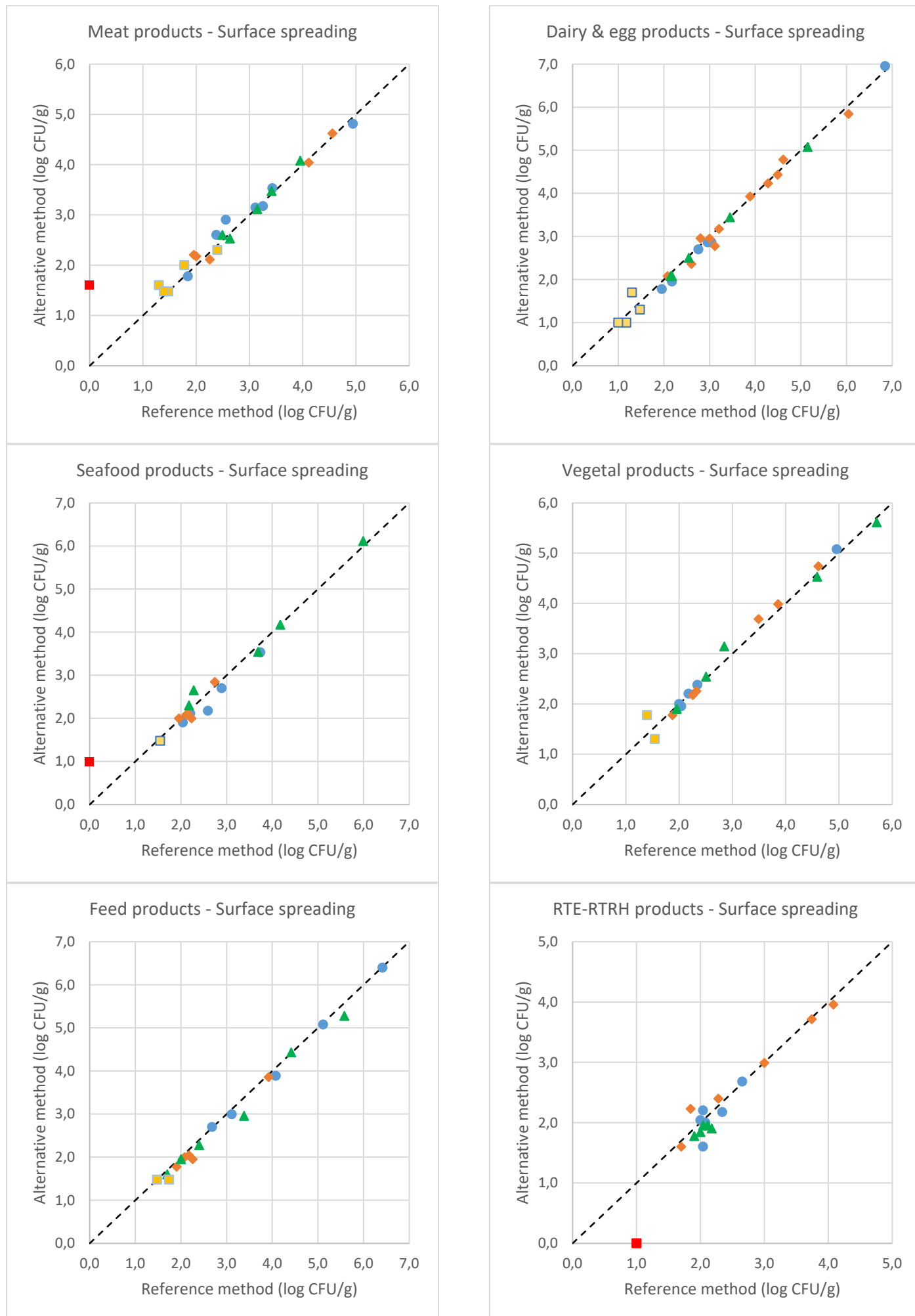


Figure 2: Two-dimensional plots per category, using the pour plate inoculation for REBECCA

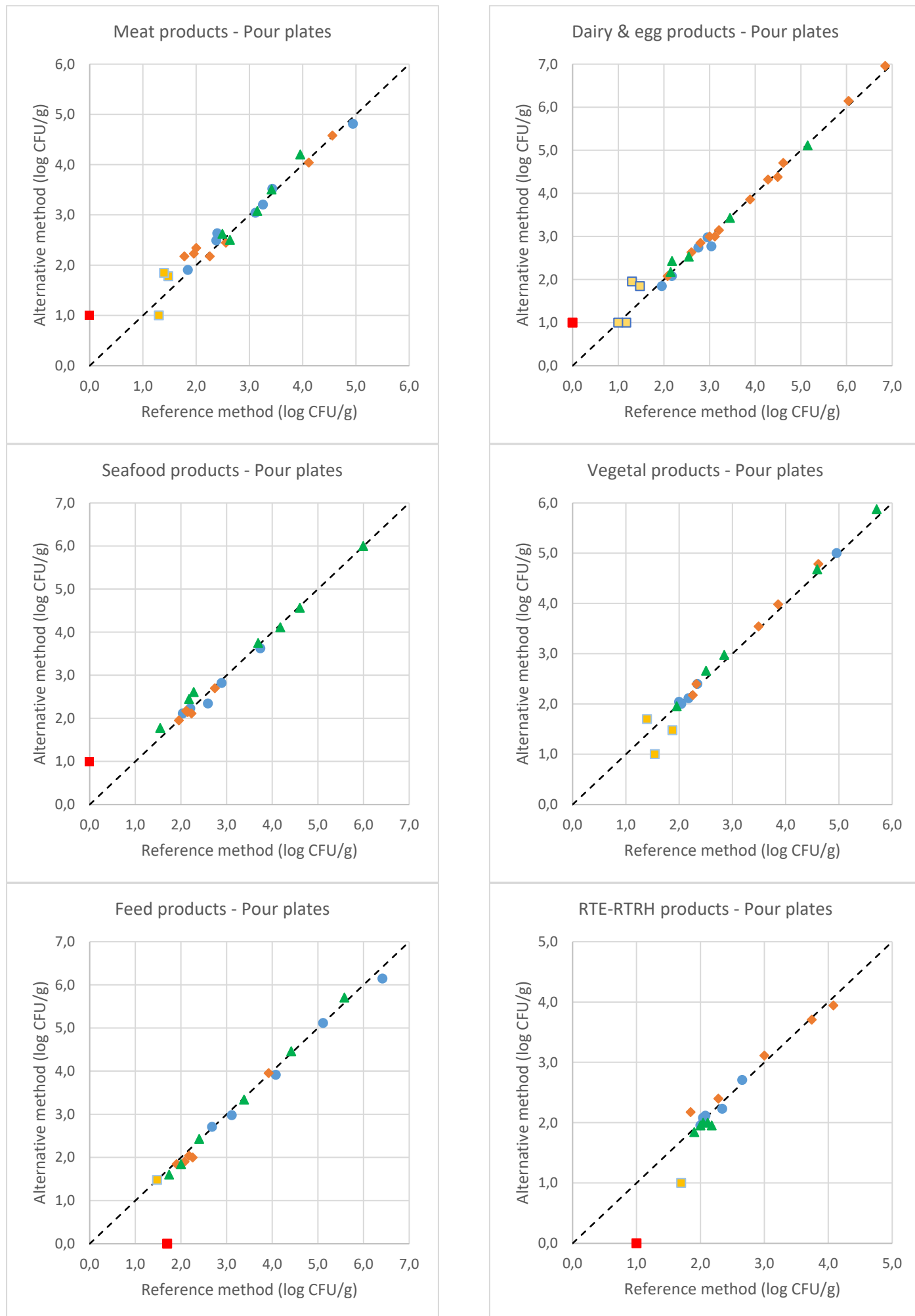


Figure 3: Two-dimensional plots for all categories using the surface spreading inoculation for REBECCA

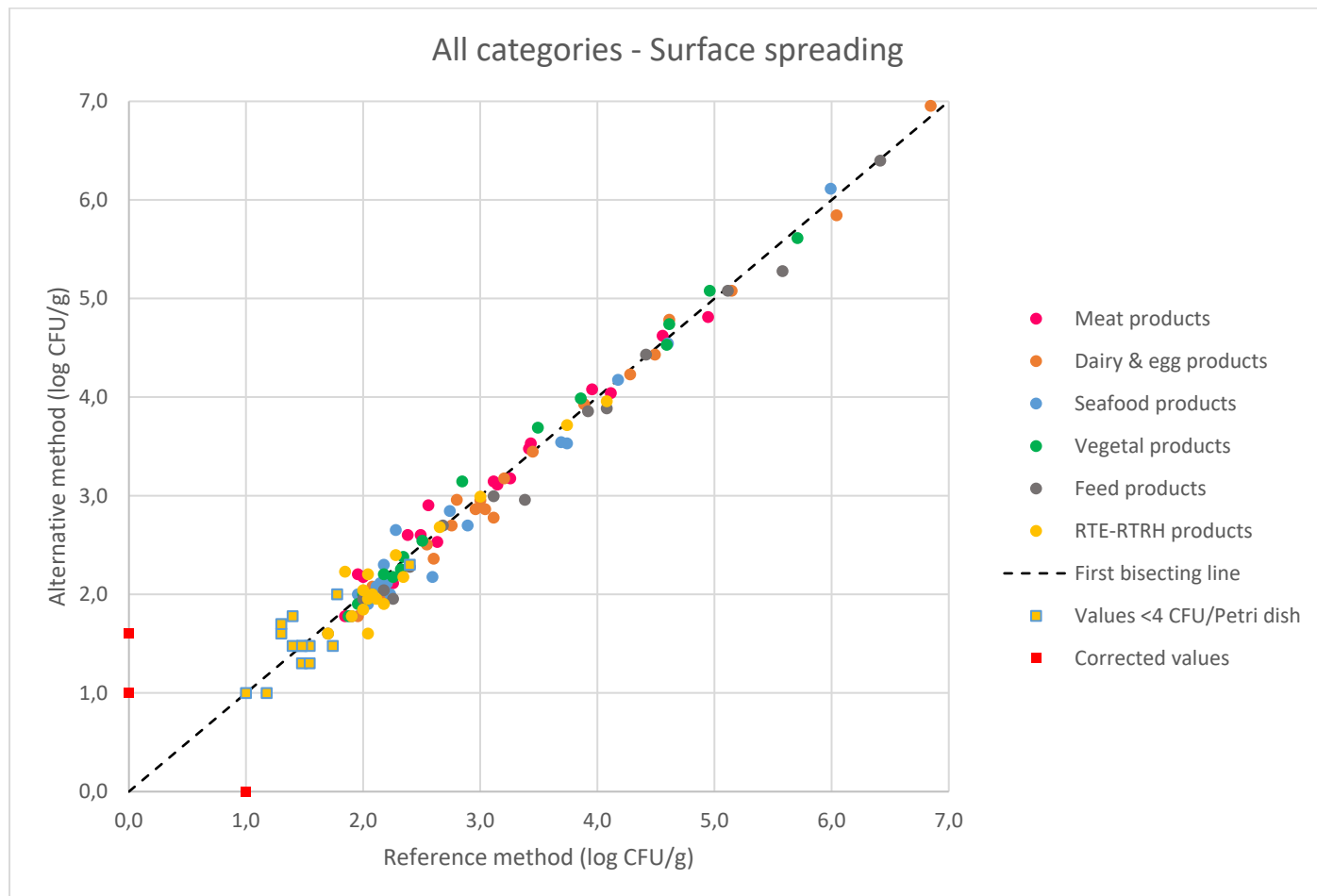


Figure 4: Two-dimensional plots for all categories using the pour plate inoculation for REBECCA

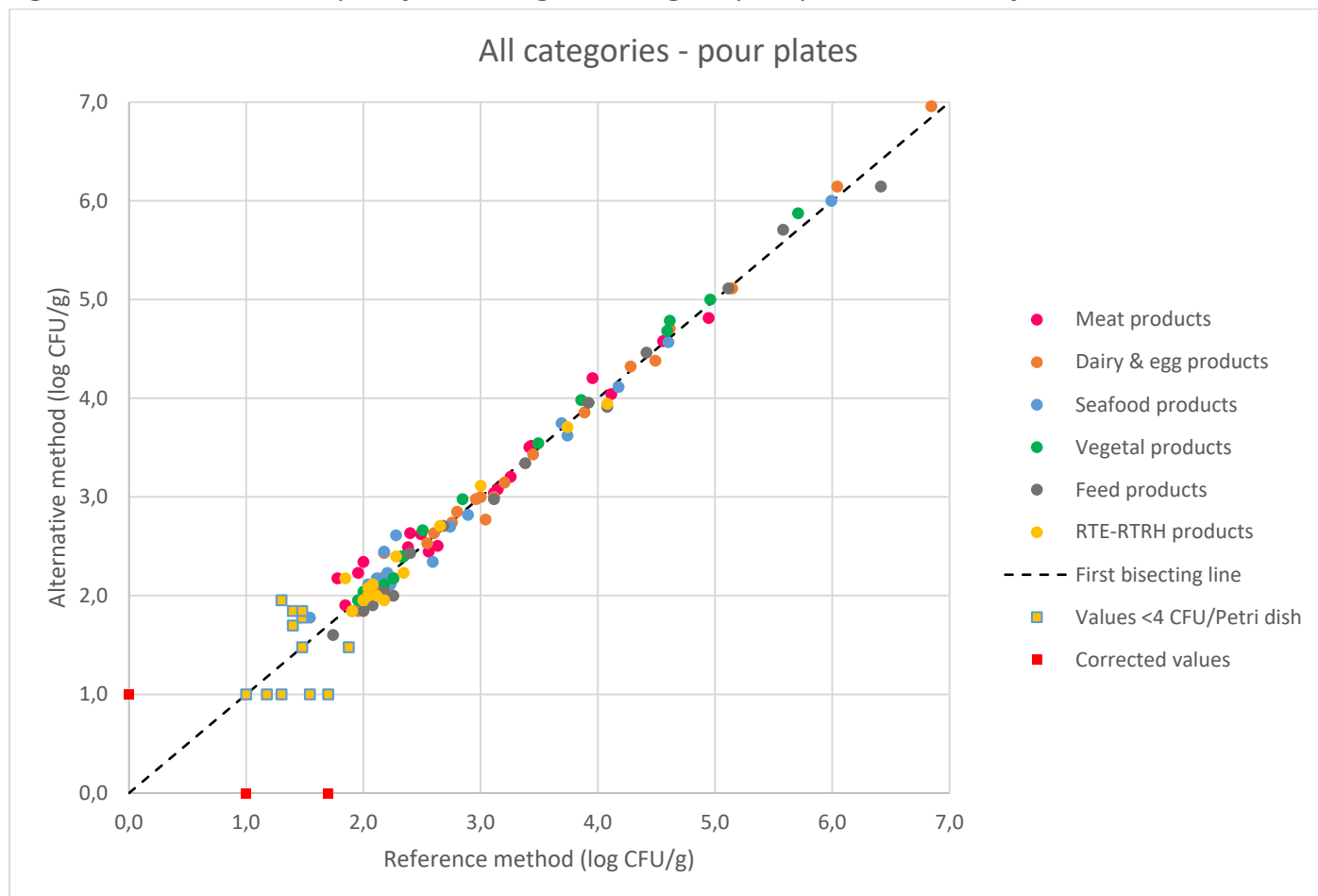


Figure 5: Two-dimensional plots per category, using the surface spreading inoculation for REBECCA+EB

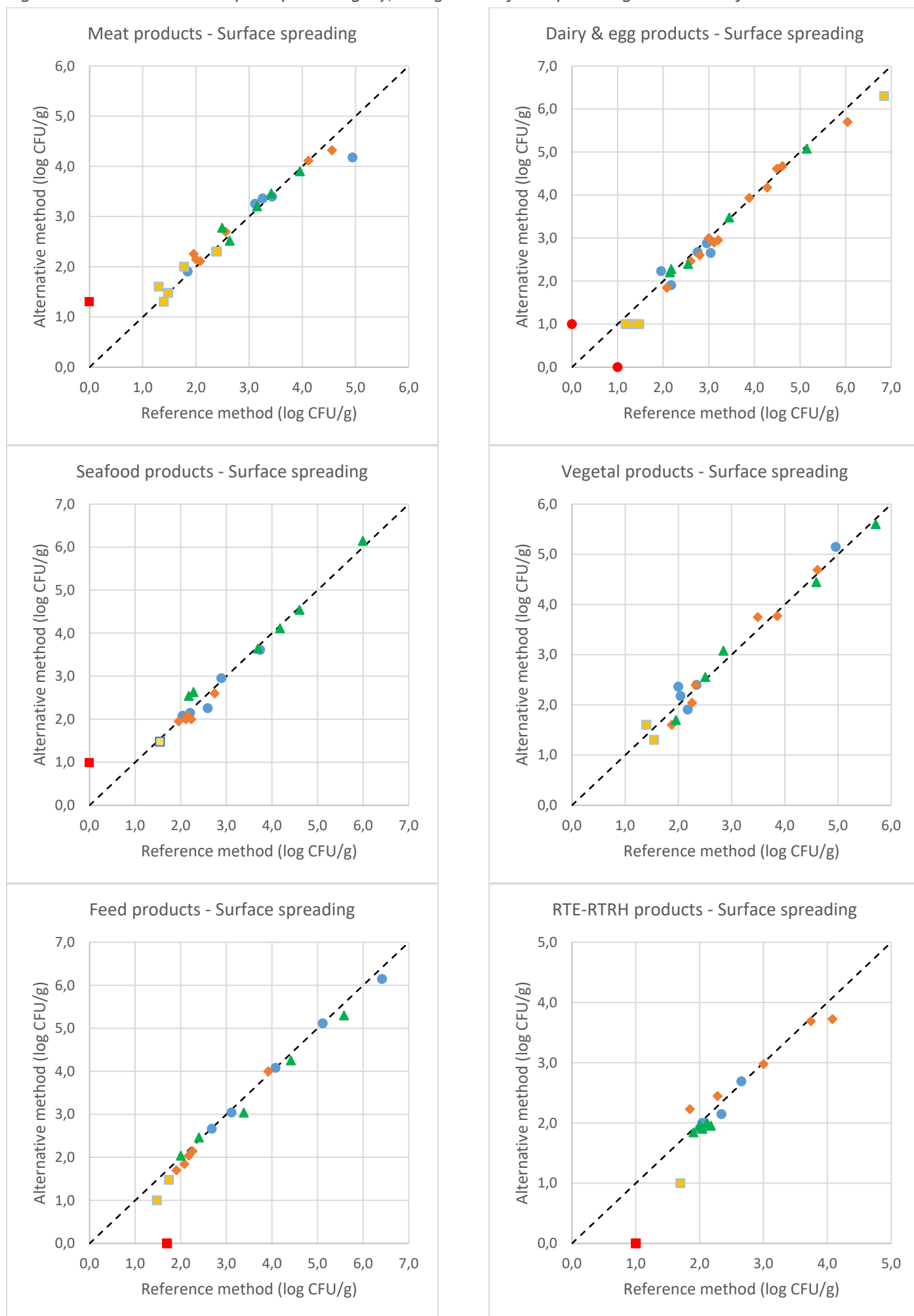


Figure 6: Two-dimensional plots per category, using the pour plate inoculation for REBECCA+EB

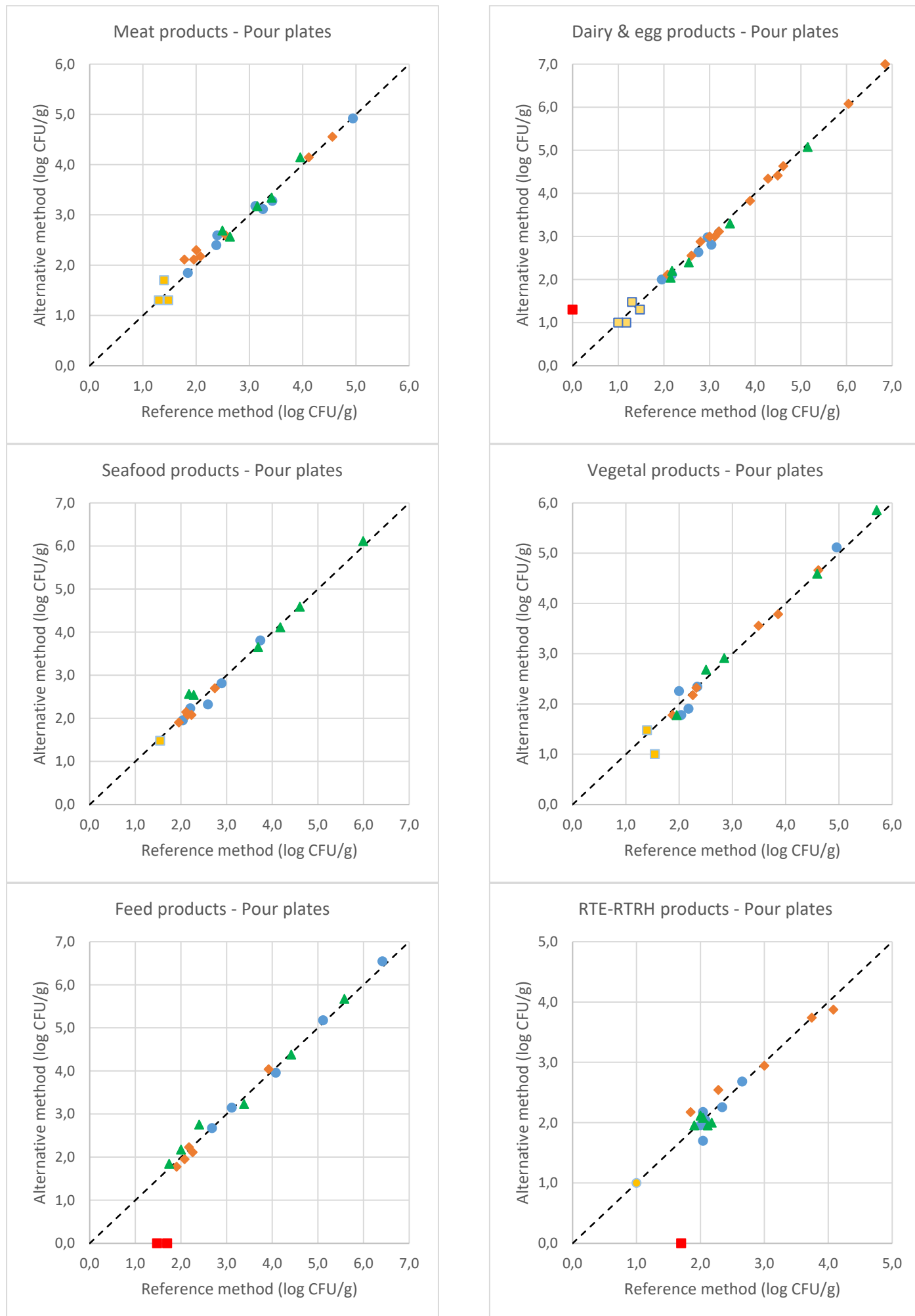


Figure 7: Two-dimensional plots for all categories using the surface spreading inoculation for REBECCA+EB

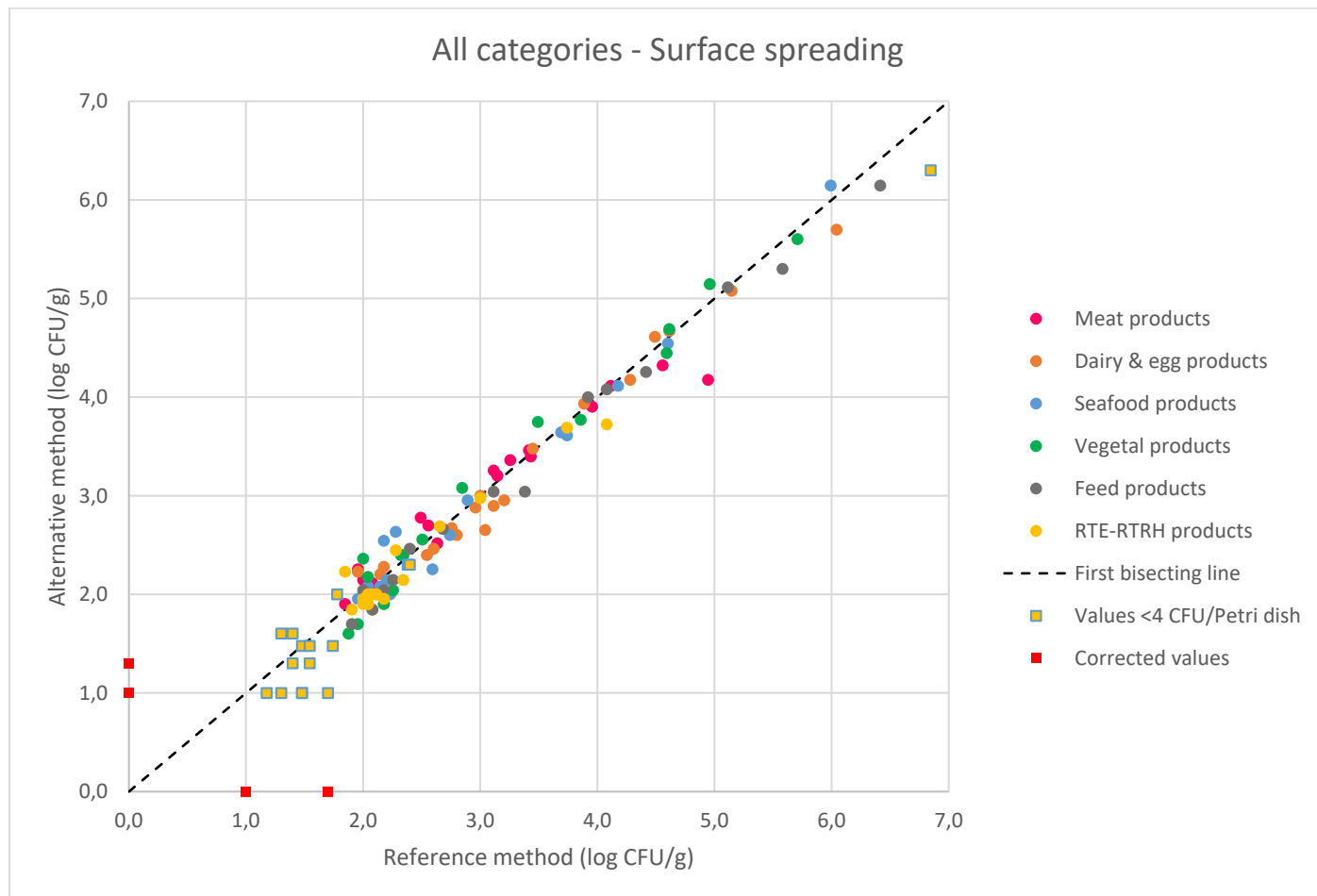
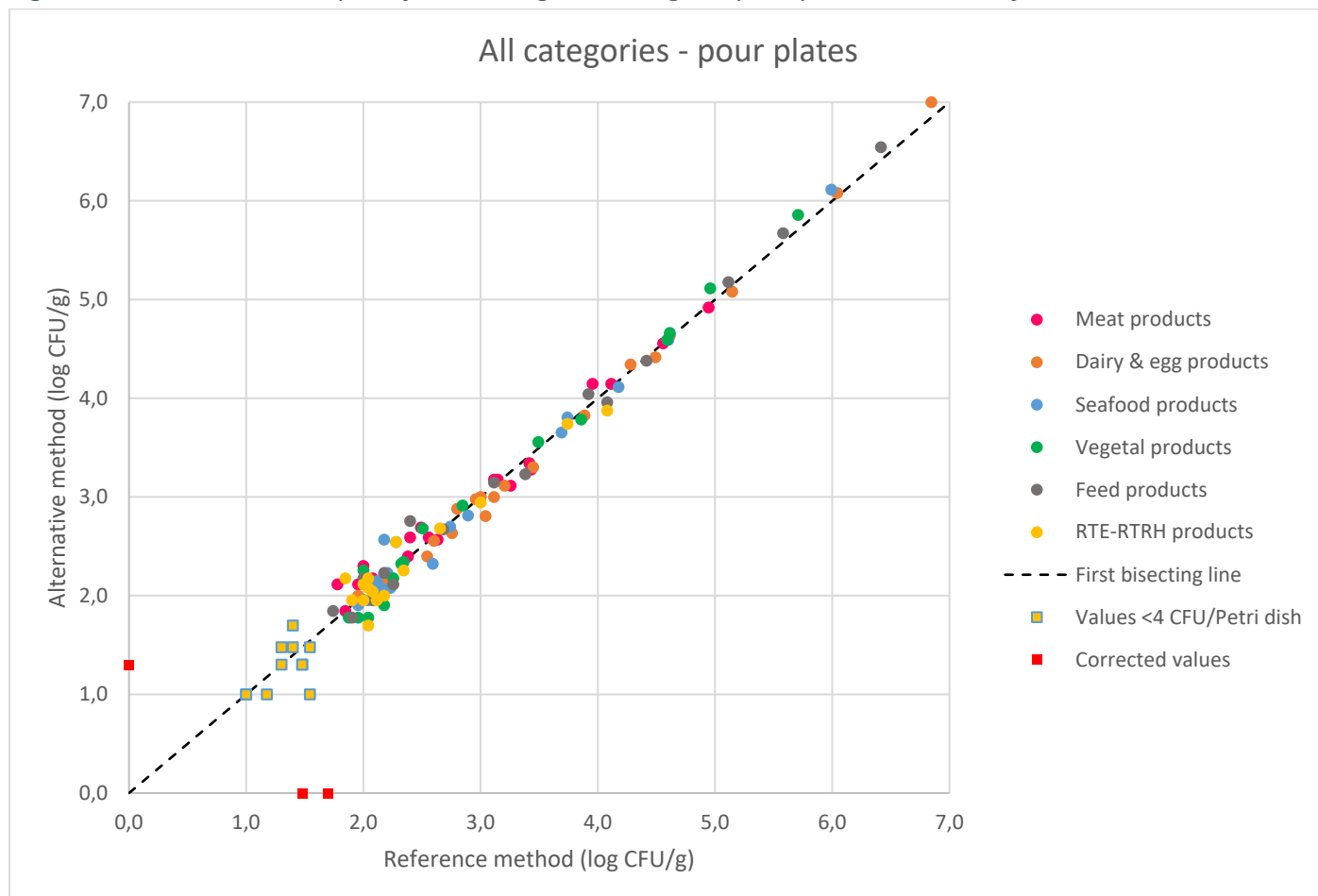


Figure 8: Two-dimensional plots for all categories using the pour plate inoculation for REBECCA+EB



3.1.5. Calculation and interpretation of relative trueness study

The results obtained are analyzed using the Bland-Altman method.

Statistical calculations are presented in Appendix E, as well as the results excluded from the statistical analysis per category, type and modality of inoculation.

Table 3 presents the summary of the average differences and standard deviation differences per method, category and for all categories.

Table 3: values for the Bland-Altman difference plot

Method	Inoculation	Category	n	Average difference	Standard deviation differences	Bias	Lower Confidence Limit	Upper Confidence Limit
REBECCA	Surface spreading	MP	17	0.05	0.14	/	/	/
		DP	22	-0.07	0.13	/	/	/
		SP	16	-0.05	0.18	/	/	/
		VP	16	0.03	0.12	/	/	/
		FP	16	-0.13	0.12	/	/	/
		RTE	17	-0.06	0.18	/	/	/
		All cat.	104	-0.04	0.18	-0.04	-0.35	0.27
	Pour plate	MP	19	0.07	0.17	/	/	/
		DP	22	-0.01	0.10	/	/	/
		SP	17	0.02	0.15	/	/	/
		VP	15	0.06	0.08	/	/	/
		FP	16	-0.08	0.12	/	/	/
		RTE	16	-0.01	0.13	/	/	/
		All cat.	105	0.01	0.13	0.01	-0.26	0.28
REBECCA+EB	Surface spreading	MP	16	0.01	0.25	/	/	/
		DP	21	-0.09	0.17	/	/	/
		SP	16	-0.02	0.19	/	/	/
		VP	16	-0.01	0.20	/	/	/
		FP	15	-0.11	0.14	/	/	/
		RTE	16	-0.06	0.17	/	/	/
		All cat.	100	-0.04	0.19	-0.04	-0.42	0.33
	Pour plate	MP	19	0.06	0.14	/	/	/
		DP	22	-0.04	0.09	/	/	/
		SP	16	0.00	0.16	/	/	/
		VP	16	0.00	0.15	/	/	/
		FP	16	0.03	0.14	/	/	/
		RTE	16	-0.01	0.17	/	/	/
		All cat.	105	0.01	0.14	0.01	-0.28	0.29

Overall, the average difference is equal to -0,04 (surface spreading method for REBECCA and REBECCA+EB) and 0,01 (pour plate method for REBECCA and REBECCA+EB), showing no bias between the REBECCA methods and the reference method.

The average difference varies from:

- REBECCA: -0.13 log CFU/g (feed products) to 0.05 CFU/g (meat products) for the surface spreading method and from -0.08 log CFU/g (feed products) to 0.07 log CFU/g (meat products) for the pour plate technique,
- REBECCA+EB: -0.11 log CFU/g (feed products) to 0.01 CFU/g (meat products) for the surface spreading method and from -0.04 log CFU/g (dairy and egg products) to 0.06 log CFU/g (meat products) for the pour plate technique.

Upper and lower 95% confidence interval limits are lower than 0.5 log showing a good correlation between the two methods.

The Bland-Altman difference plots are presented for all categories in figures 9 and 10 for the REBECCA method and in figures 11 and 12 for the REBECCA+EB method.

As on scatter plots:

- Each category is differentiated by a specific colour,
- Results expressed with less than 4 colonies per Petri dish for at least one method are indicated by a yellow square,
- Results lower or higher than the quantification limits for one method are indicated by a red square. The value of these results is corrected according to the EN ISO 16140-2:2016 requirements.

Figure 9: Bland-Altman difference plot for REBECCA for all categories with the surface spreading method

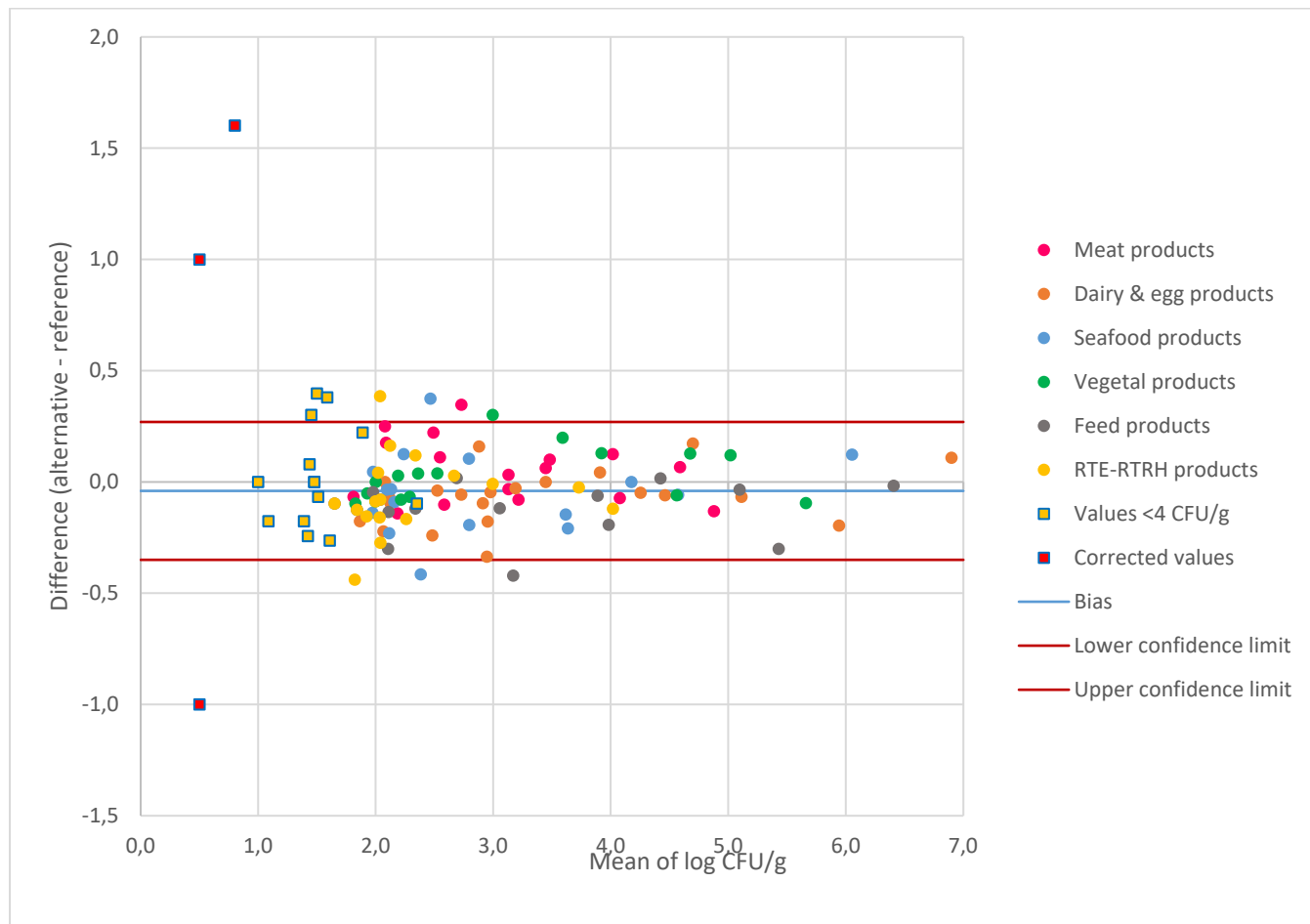


Figure 10: Bland-Altman difference plot for REBECCA for all categories with the pour plate technique

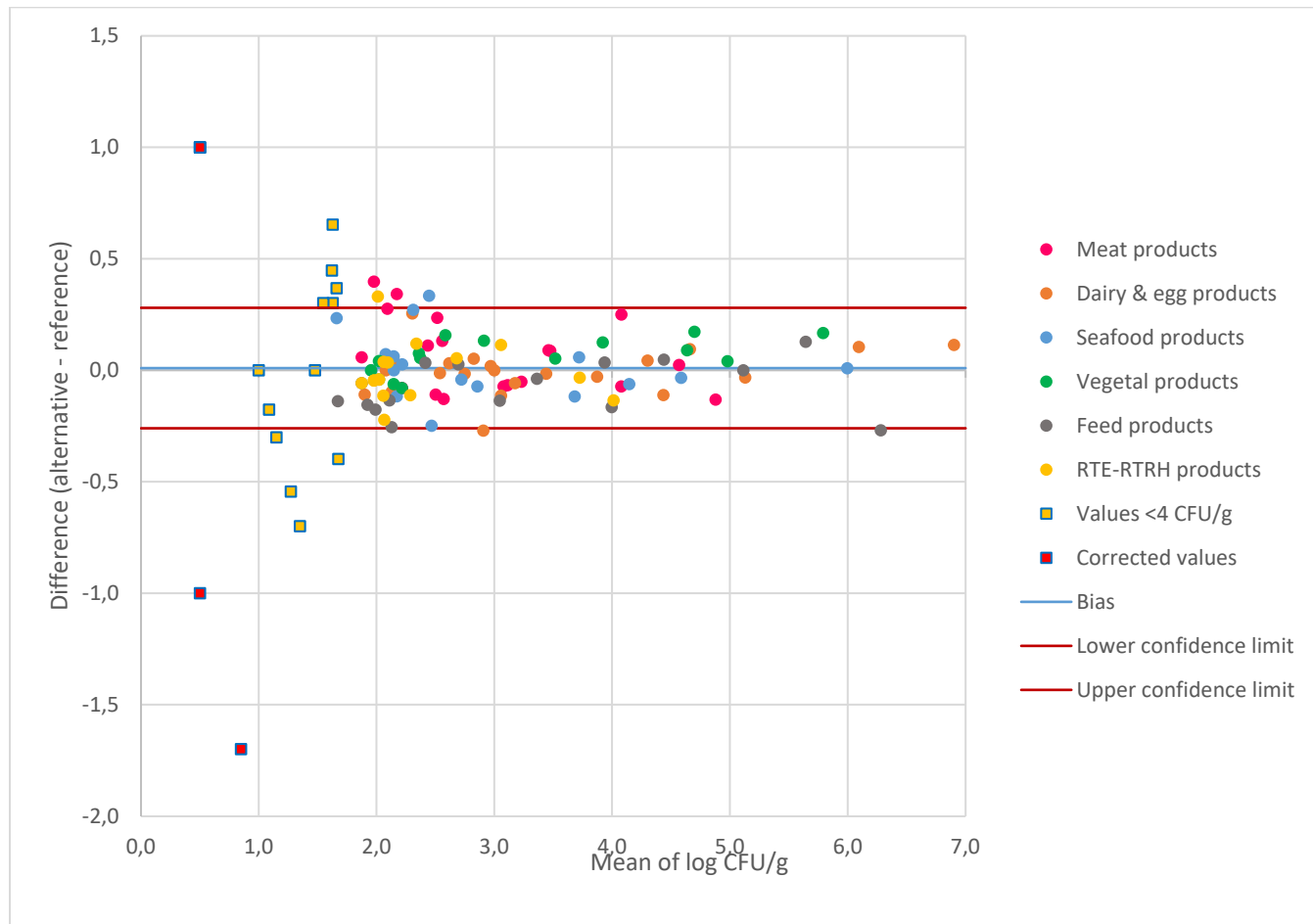


Figure 11: Bland-Altman difference plot for REBECCA+EB for all categories with the surface spreading method

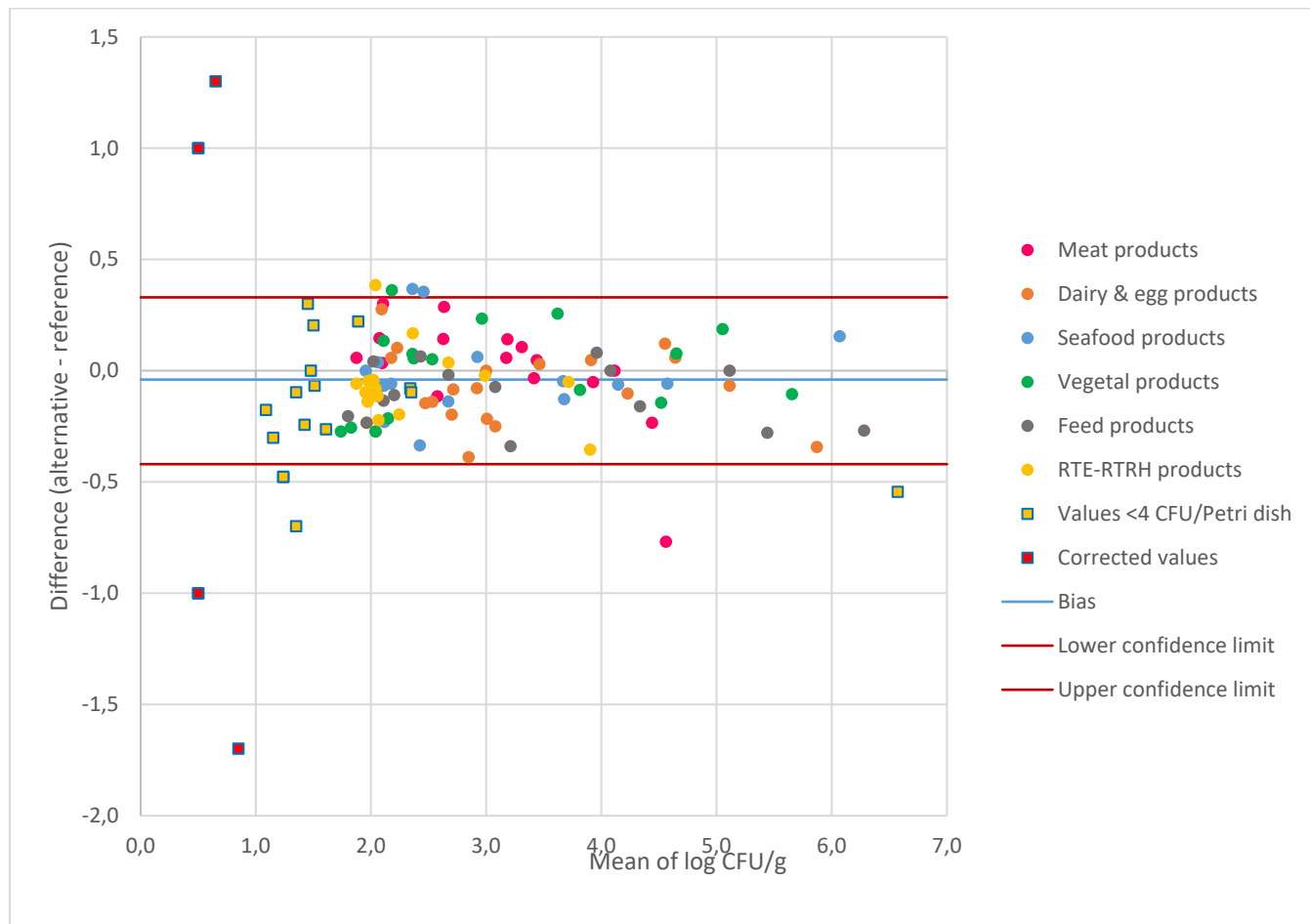
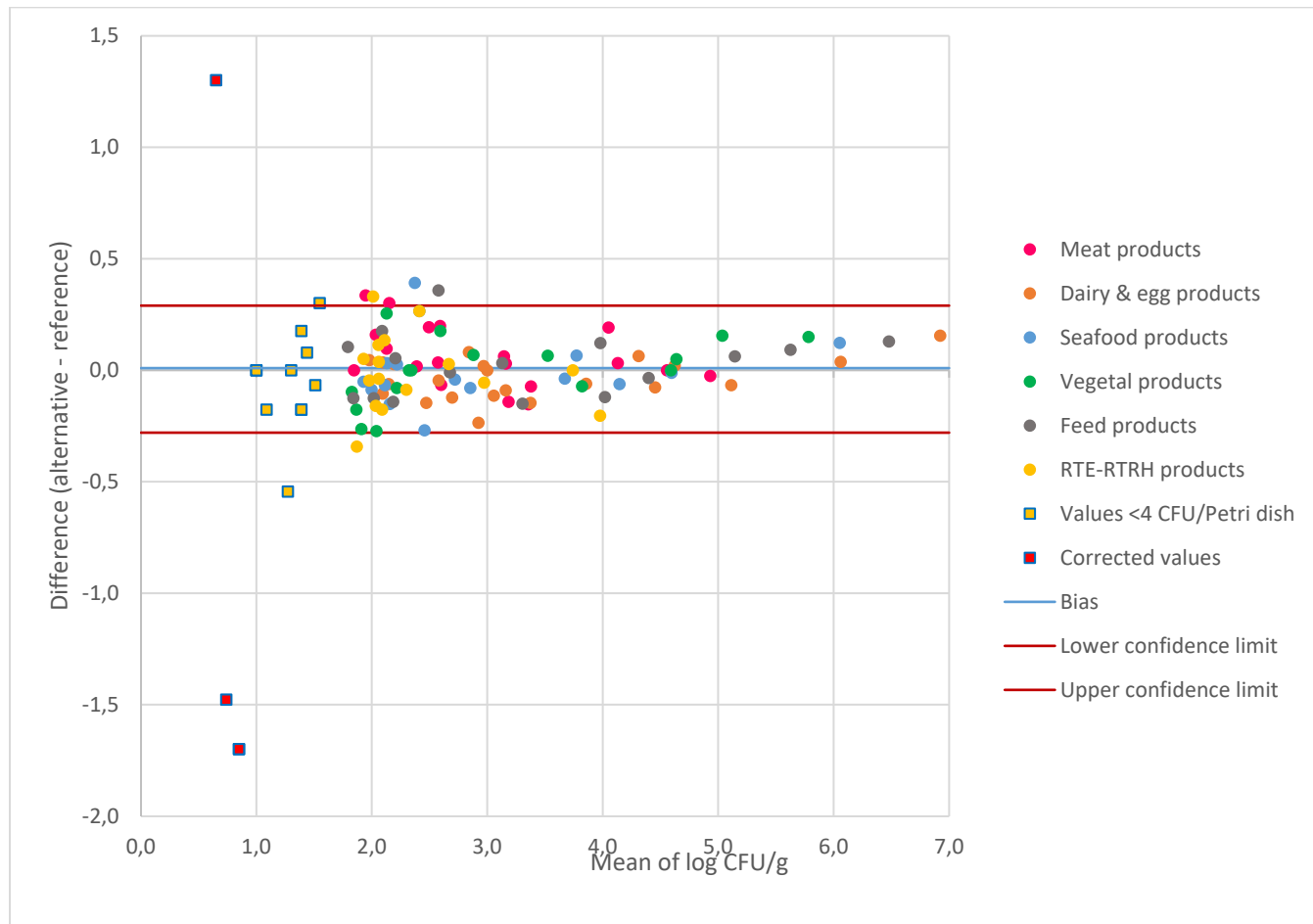


Figure 12: Bland-Altman difference plot for REBECCA+EB for all categories with the pour plate technique



- Observations:

Samples for which the average difference is lower or higher than the confidence limits are listed in table 4 for the REBECCA method and in table 5 for the REBECCA+EB method.

Table 4: values outside the confidence limits on the Bland-Altman difference plot for the REBECCA method (green cases: values <4 CFU/Petri dish, yellow cases: values lower and higher than the quantification limits, blue: values higher than the confidence limits, red: values lower than the quantification limits)

Inoculation	Category	Type	Sample #	Reference Method value (log)	Alternative Method value (log)	Mean	Difference
Surface spreading: LCL: -0,35 UCL: +0,27	MP	a	VI 320	2,56	2,90	2,73	0,35
		b	1692051	1,30	1,60	1,45	0,30
		c	1692065	0,00	1,60	0,80	1,60
	DP	a	1692054	1,30	1,70	1,50	0,40
	SP	a	CI 141	2,59	2,18	2,38	-0,41
		c	MV 2921	2,28	2,65	2,47	0,37
		a	1691995	0,00	1,00	0,50	1,00
	VP	c	VR 4497	2,85	3,15	3,00	0,30
		c	DJ 3361	1,40	1,78	1,59	0,38
	FP	c	RD 1429	3,38	2,96	3,17	-0,42
	RTE	a	1692053	2,04	1,60	1,82	-0,44
		b	1698413	1,85	2,23	2,04	0,39
		a	1692050	1,00	0,00	0,50	-1,00
Pour plate: LCL: -0,26 UCL: +0,28	MP	b	VR 5152	1,78	2,18	1,98	0,40
		b	1698415	2,00	2,34	2,17	0,34
		a	VR 4754	1,48	1,78	1,63	0,30
		b	1692051	1,30	1,00	1,15	-0,30
		c	MV 1916	1,40	1,85	1,62	0,45
		c	1692065	0,00	1,00	0,50	1,00
	DP	a	1691977	3,04	2,77	2,91	-0,27
		a	1692054	1,30	1,95	1,63	0,65
		a	1692055	1,48	1,85	1,66	0,37
		b	1691989	0,00	1,00	0,50	1,00
	SP	c	MV 2921	2,28	2,61	2,45	0,33
		a	1691999	0,00	1,00	0,50	1,00
	VP	b	DJ 3849	1,88	1,48	1,68	-0,40
		c	DJ 3361	1,40	1,70	1,55	0,30
		c	DJ 3510	1,54	1,00	1,27	-0,54
		c	1692066	1,70	0,00	0,85	-1,70
	FP	a	RD 1434	6,41	6,15	6,28	-0,27
	RTE	b	1698413	1,85	2,18	2,01	0,33
		b	1692052	1,70	1,00	1,35	-0,70
		a	1692050	1,00	0,00	0,50	-1,00

Table 5: values outside the confidence limits on the Bland-Altman difference plot for the REBECCA+EB method (green cases: values <4 CFU/Petri dish, yellow cases: values lower and higher than the quantification limits, blue: values higher than the confidence limits, red: values lower than the quantification limits)

Inoculation	Category	Type	Sample #	Reference Method value (log)	Alternative Method value (log)	Mean	Difference
Surface spreading: LCL: -0,42 UCL: +0,33	MP	a	1692012	4,94	4,18	4,56	-0,77
		c	1692065	0,00	1,30	0,65	1,30
	DP	a	1692055	1,48	1,00	1,24	-0,48
		b	R 36889	6,85	6,30	6,57	-0,54
		b	1691989	0,00	1,00	0,50	1,00
		b	1692008	1,00	0,00	0,50	-1,00
	SP	c	MV 2921	2,28	2,63	2,46	0,35
		c	Q 2235	2,18	2,54	2,36	0,37
		a	1691999	0,00	1,00	0,50	1,00
	VP	a	1698420	2,00	2,36	2,18	0,36
	FP	b	1691988	1,48	1,00	1,24	-0,48
		c	1692066	1,70	0,00	0,85	-1,70
	RTE	b	1698413	1,85	2,23	2,04	0,39
	RTE	b	1692052	1,70	1,00	1,35	-0,70
		a	1692050	1,00	0,00	0,50	-1,00
Pour plate: LCL: -0,28 UCL: +0,29	MP	b	VR 5152	1,78	2,11	1,95	0,34
		b	1698415	2,00	2,30	2,15	0,30
		c	MV 1916	1,40	1,70	1,55	0,30
	DP	b	1691989	0,00	1,30	0,65	1,30
	SP	c	Q 2235	2,18	2,57	2,37	0,39
	VP	c	DJ 3510	1,54	1,00	1,27	-0,54
	FP	c	RD 1428	2,40	2,76	2,58	0,36
		b	1691988	1,48	0,00	0,74	-1,48
		c	1692066	1,70	0,00	0,85	-1,70
	RTE	a	1692053	2,04	1,70	1,87	-0,34
		b	1698413	1,85	2,18	2,01	0,33
		b	1692052	1,70	0,00	0,85	-1,70

- **REBECCA method:**

- o Surface spreading method

Thirteen samples are outside the confidence limits: 6 concern corrected values or samples with less than 4 CFU/Petri dish, 4 are higher than the upper confidence limit and 3 are lower than the lower confidence limit.

- o Pour plate technique:

Twenty samples are outside the confidence limits: 14 concern corrected values or samples with less than 4 CFU/Petri dish, 4 are higher than the upper confidence limit and 2 are lower than the lower confidence limit.

- **REBECCA+EB method:**

- o Surface spreading method

Fifteen samples are outside the confidence limits: 10 concern corrected values or samples with less than 4 CFU/Petri dish, 4 are higher than the upper confidence limit and 1 is lower than the lower confidence limit.

- o Pour plate technique:

Twelve samples are outside the confidence limits: 6 concern corrected values or samples with less than 4 CFU/Petri dish, 5 are higher than the upper confidence limit and 1 is lower than the lower confidence limit.

3.1.6. Conclusion

The relative trueness study of the alternative method is satisfactory.

3.2. Accuracy profile study

3.2.1. Protocols

Six matrix-strain couples were tested by both methods. Two batches of a matrix, representative of each category, were inoculated with a *Escherichia coli* strain at three levels (low, medium and high). For each sample, 5 replicates, represented by 5 different test portions, were tested by each method. This represents a total of 30 analyses per method.

The matrix-strain couples are presented in table 6.

Table 6: matrix-strain couples for the RLoD study

Category	Matrix	Strain	Strain code	Origin of the strain	Target Contamination level (CFU/g)
Meat products	Ground beef	<i>E. coli</i>	EZN508	Ground beef	100
Dairy and egg products	Raw milk cheese	<i>E. coli</i>	TDW583	Raw milk cheese	
Seafood products	Raw fish fillet	<i>E. coli</i>	AZD018	Surimi, bell pepper, pasta salad	
Vegetal products	Frozen vegetables pan	<i>E. coli</i>	BCF262	Ao nori seaweed	3000
Feed products	Cat kibbles	<i>E. coli</i>	EAR487	Raw tongues	100000
Ready-to-eat and ready-to-reheat products	Quiche lorraine	<i>E. coli</i>	UBS981	Ham croissant	

3.2.2. Results

Raw data are provided in appendix F.

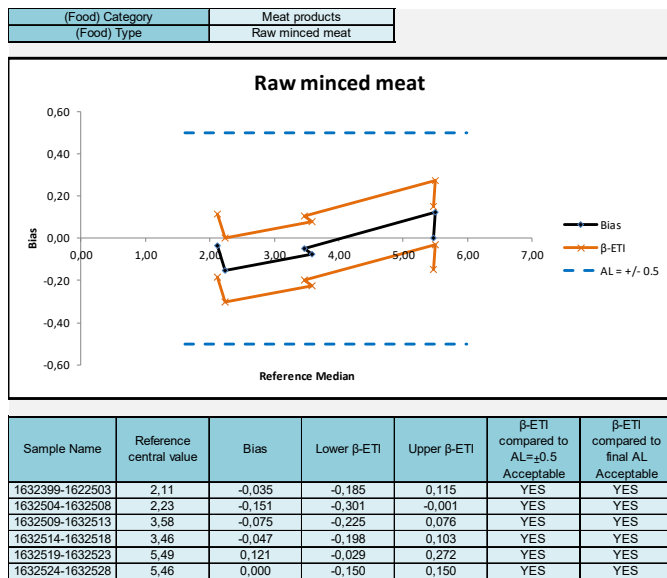
The statistical data and the accuracy profiles are shown:

- in figures 13 and 14 for the REBECCA method (surface spreading and pour plate),
- In figures 15 and 16 for the REBECCA+EB method (surface spreading and pour plate).

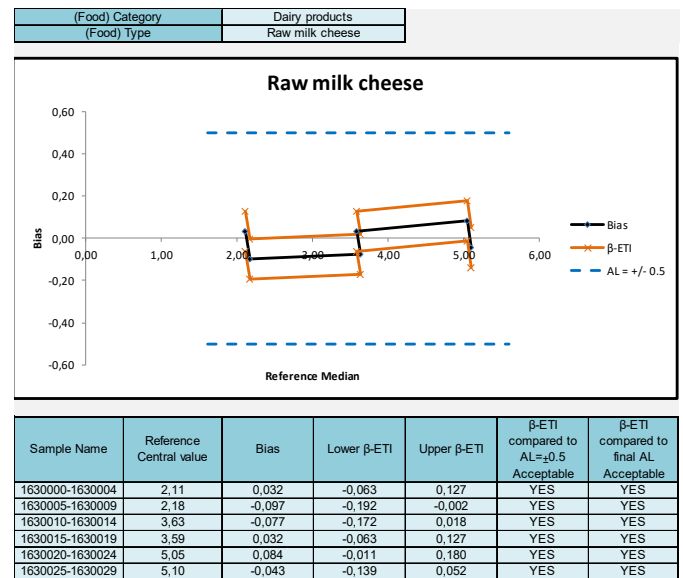
Statistical calculations were done according to the Excel spreadsheet named AP calculation tool MCS (clause 6-1-3-3 Calculation and interpretation of accuracy profile study) ver 27-01-2015.xlsx available at <http://standards.iso.org/iso/16140>.

The probability for the tolerance interval is set at 80% and the central value is the median.
The acceptability limit is set at $AL = 0.5 \log_{10} \text{CFU/g or ml}$.

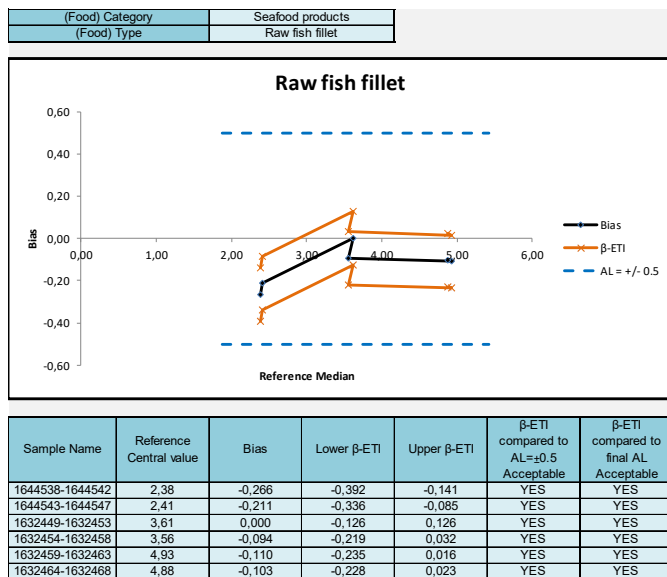
Figure 13: Accuracy profiles per category, using the surface spreading inoculation for REBECCA



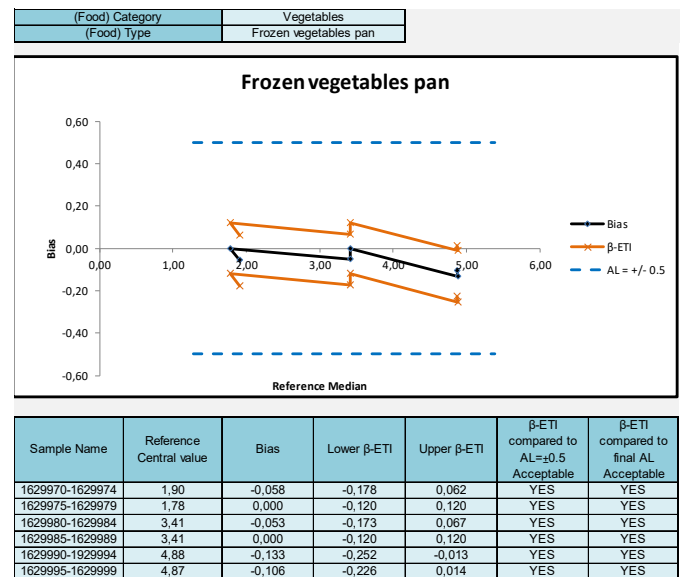
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,104	YES	+/- 0,500



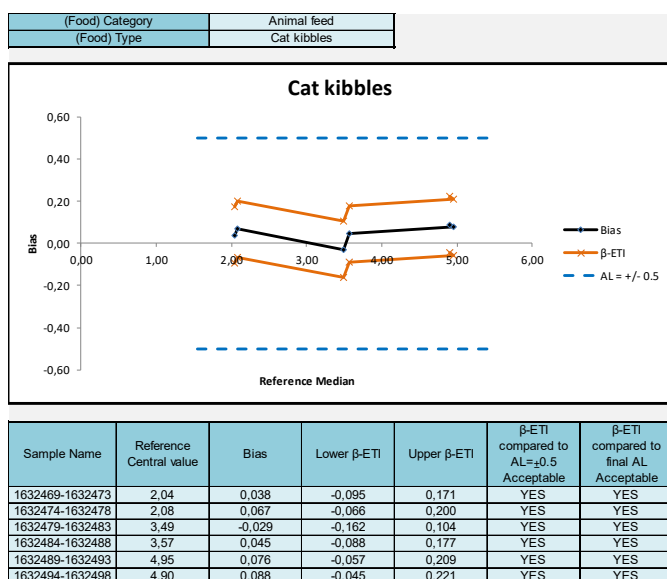
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,066	YES	+/- 0,500



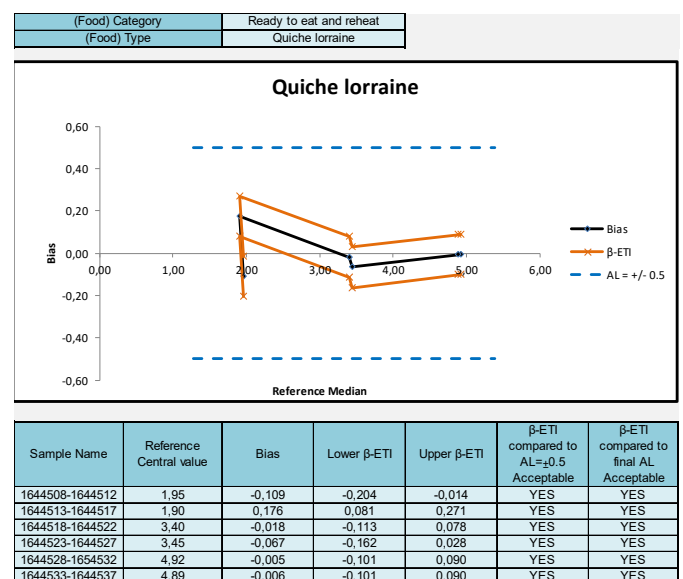
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,072	0,087	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,083	YES	+/- 0,500

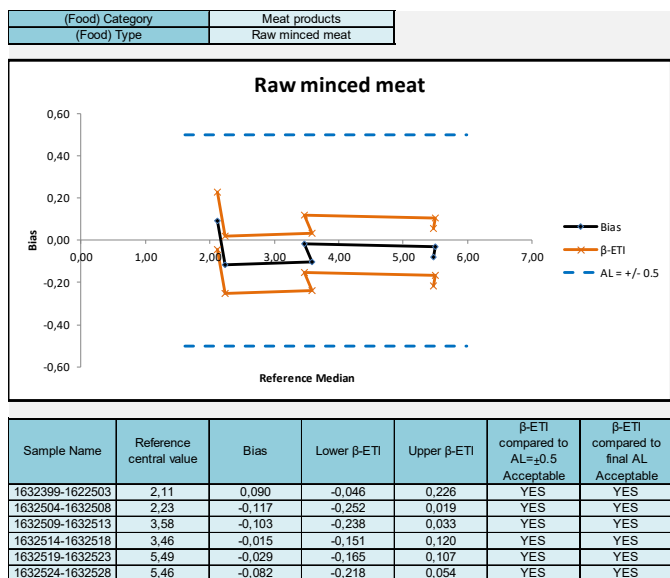


	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,083	0,092	YES	+/- 0,500

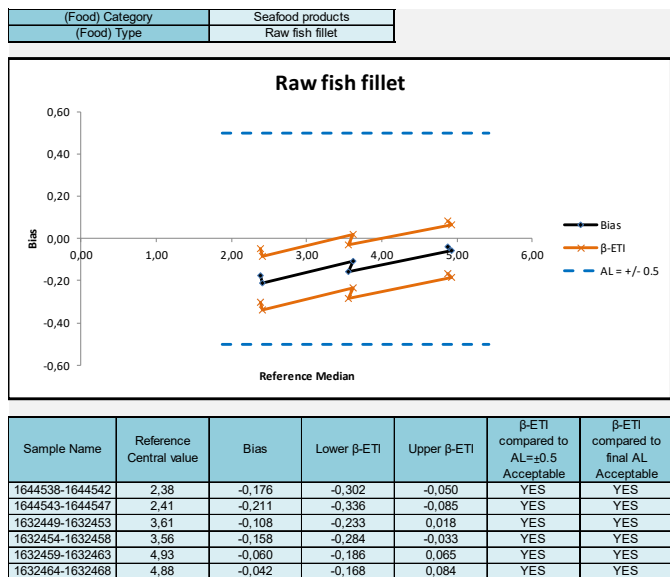


	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,103	0,066	YES	+/- 0,500

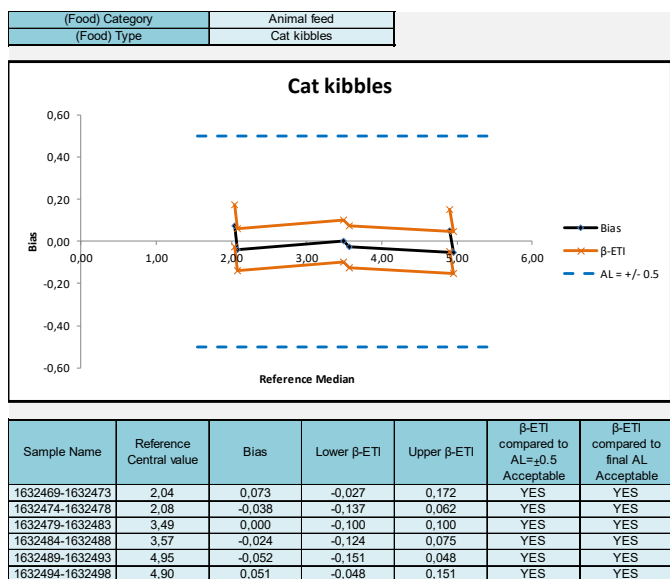
Figure 14: Accuracy profiles per category, using the pour plate inoculation for REBECCA



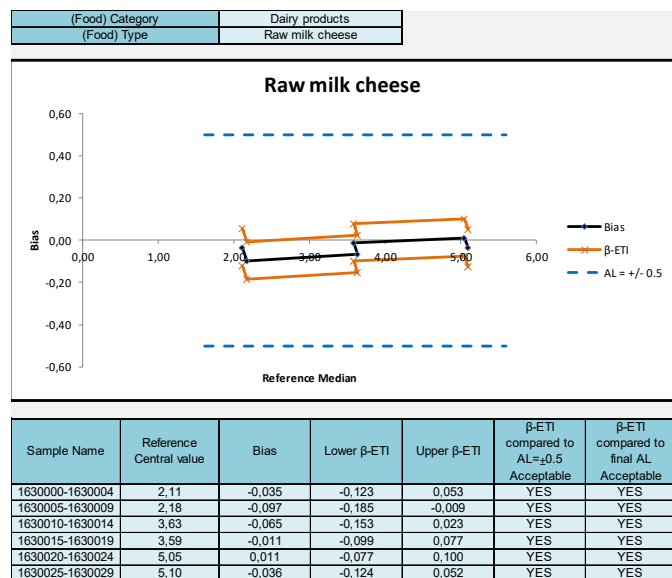
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,094	YES	+/- 0,500



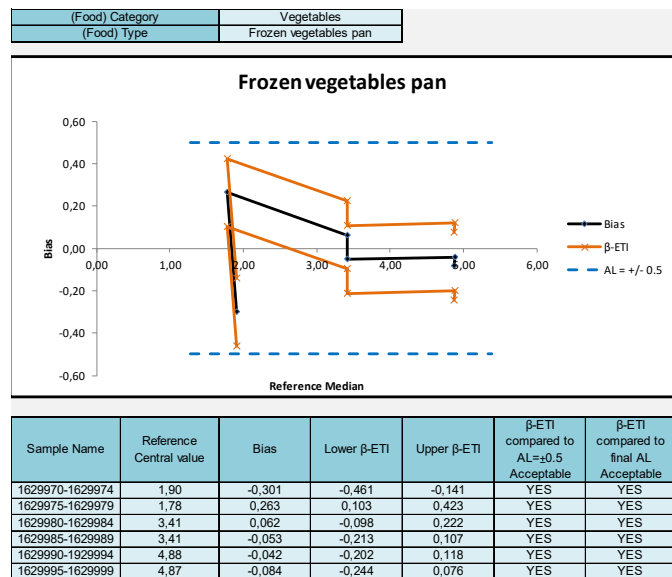
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,072	0,087	YES	+/- 0,500



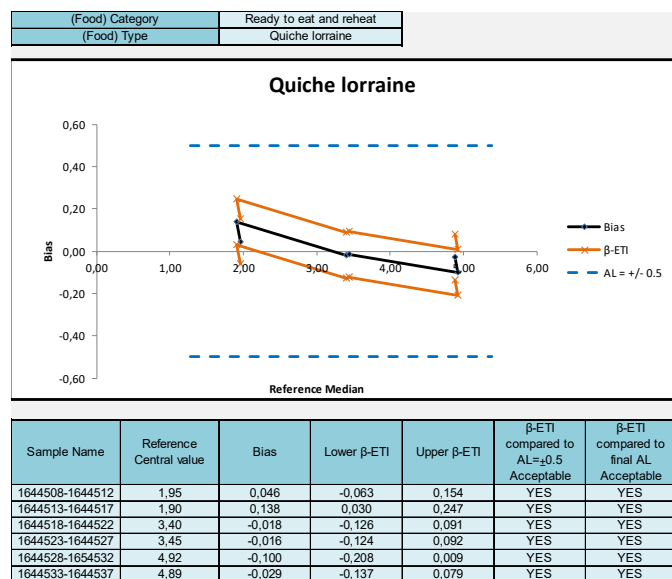
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,083	0,069	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,061	YES	+/- 0,500

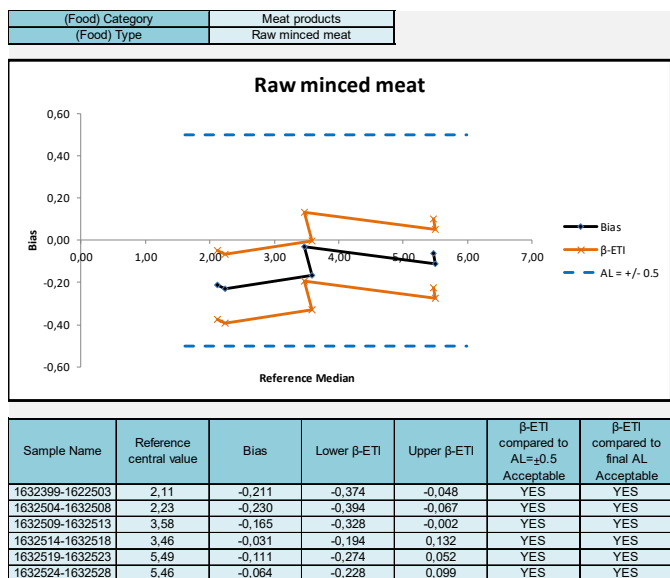


	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,111	YES	+/- 0,500

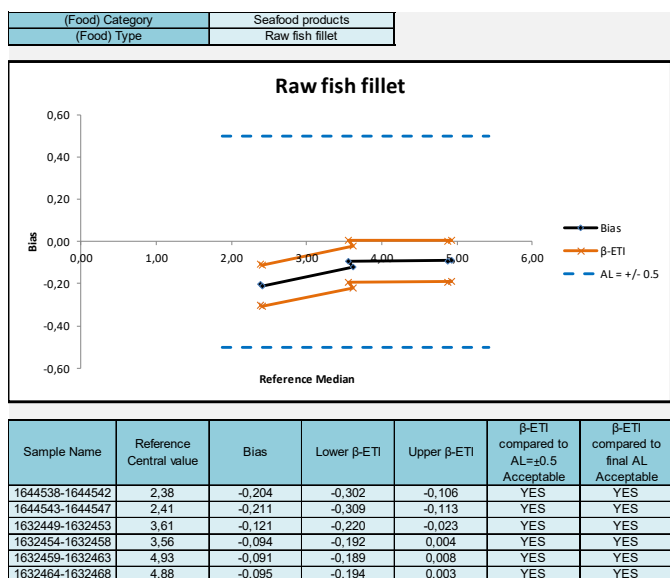


	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,103	0,075	YES	+/- 0,500

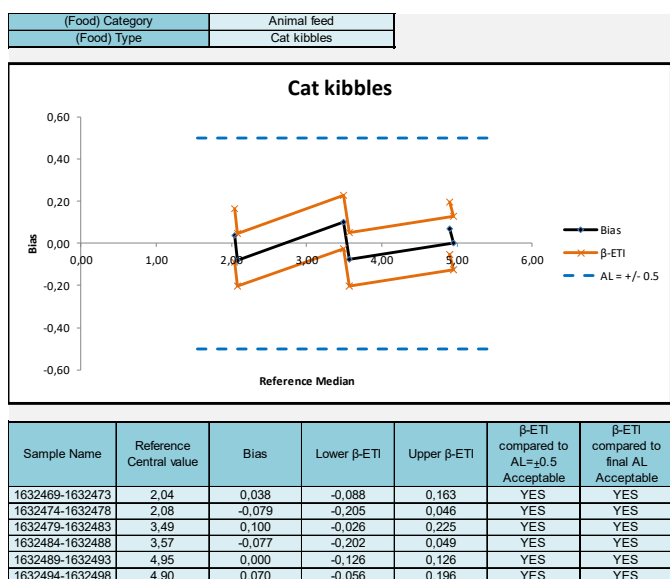
Figure 15: Accuracy profiles per category, using the surface spreading inoculation for REBECCA+EB



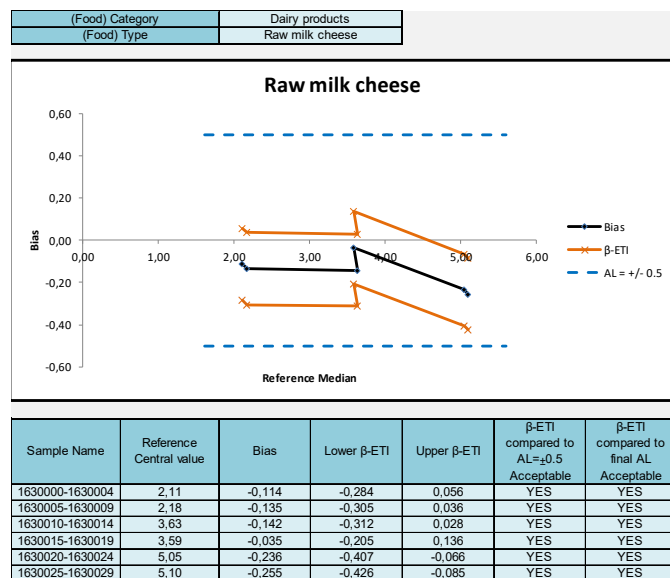
	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,096	0,113	YES	+/- 0,500



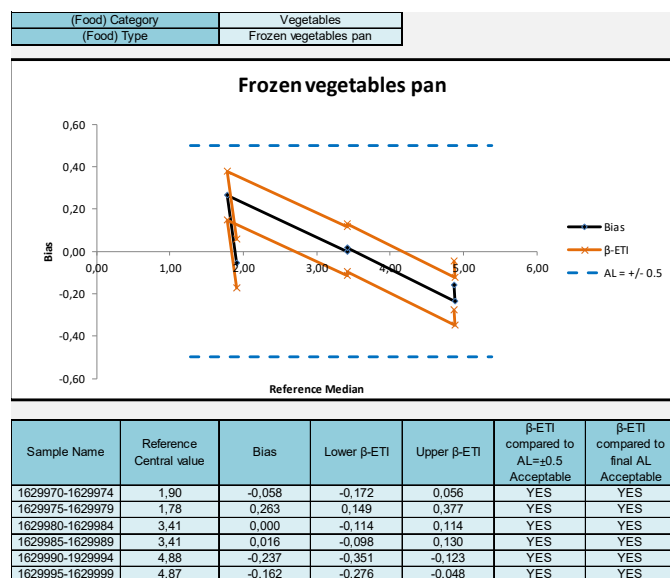
	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,072	0,068	YES	+/- 0,500



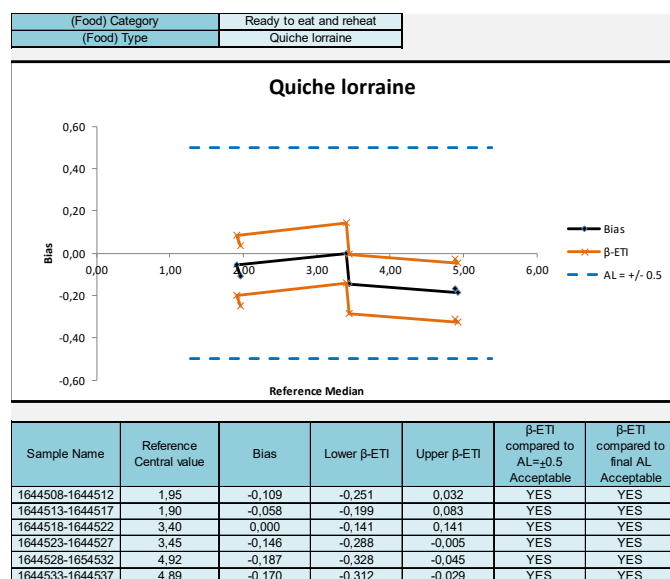
	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,083	0,087	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,096	0,118	YES	+/- 0,500

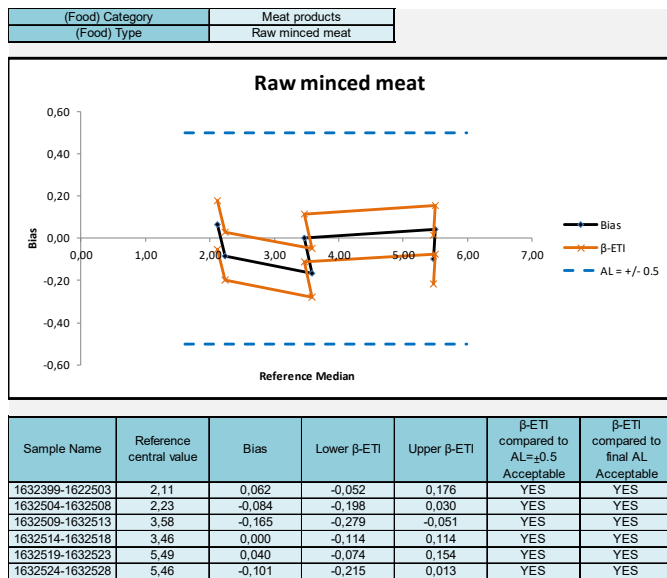


	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,096	0,079	YES	+/- 0,500

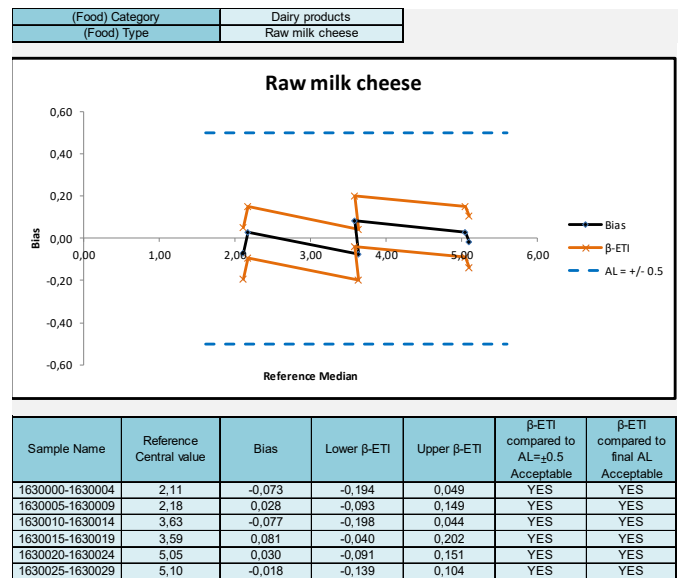


	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,103	0,098	YES	+/- 0,500

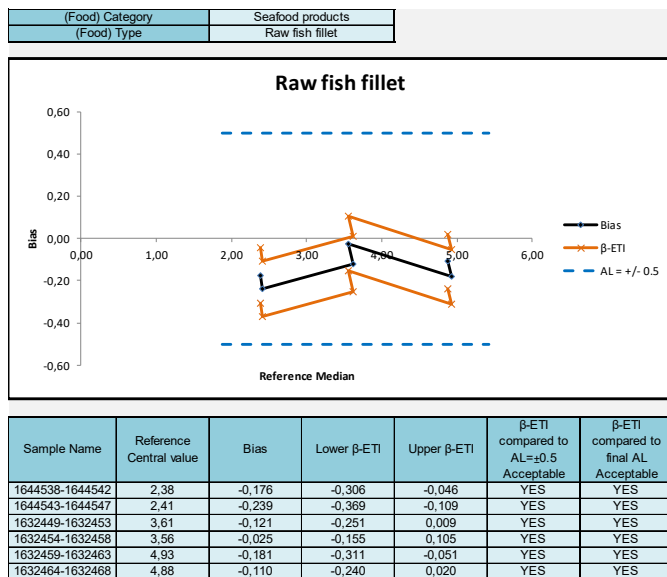
Figure 16: Accuracy profiles per category, using the pour plate inoculation for REBECCA+EB



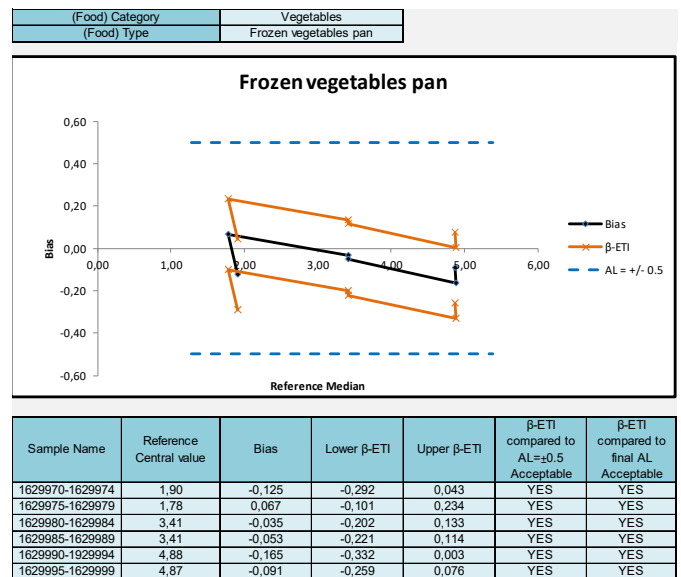
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,079	YES	+/- 0,500



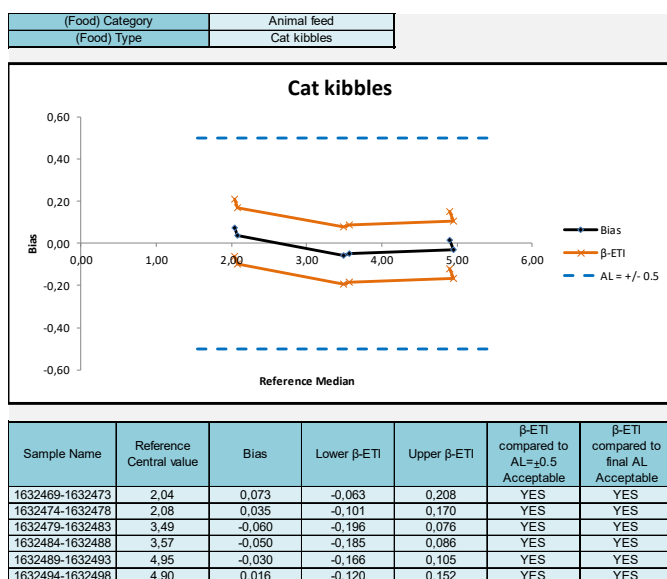
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,084	YES	+/- 0,500



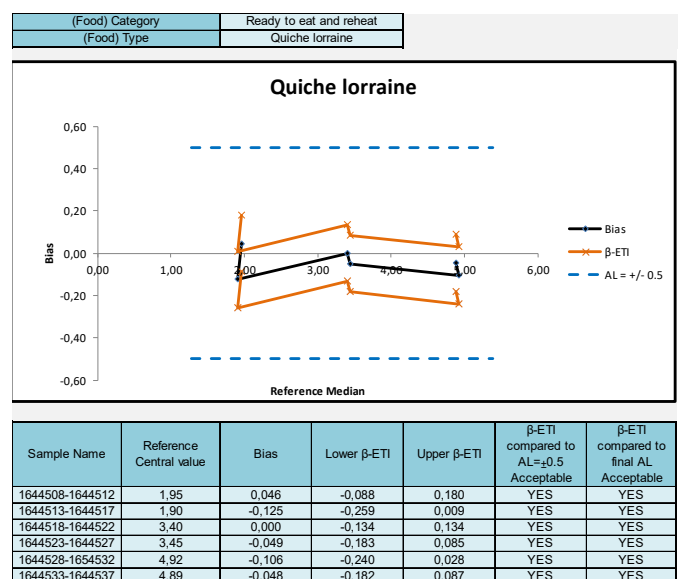
	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,072	0,090	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,096	0,116	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,083	0,094	YES	+/- 0,500



	Reference method	Alternative method	SD repeatability of reference method ≤ 0.125	Final AL
SD Repeatability	0,103	0,093	YES	+/- 0,500

The tolerance intervals fall into the acceptability limits for all categories with the two modalities of inoculation for the REBECCA method, as well as for the REBECCA+EB method.

3.2.3. Conclusion

The alternative method is accepted as being equivalent to the reference method.

3.3. Specificity / selectivity

The aim of this study is to check that all the strains of *Escherichia coli* are detected, and that no cross-reaction exists with other Enterobacteriaceae or with strains from other genera.

The inclusivity and the exclusivity of the method are defined by analysis, respectively of 50 positive strains and 30 negative strains.

3.3.1. Protocols

3.3.1.1. Initial validation study

The strains were tested in duplicate according to two types of inoculation of REBECCA agar media: spreading or inclusion method.

Fifty (50) target strains and twenty-two (22) non-target strains were tested.

The raw data are provided in Appendix G.

3.3.1.2. Second renewal study

Eight additional non-target strains were tested.

Tests for non-target microorganisms were performed once with the alternative method (by spreading and pour plate) and the reference method. Pure cultures were grown on a non-selective broth for 24 hours and diluted at an appropriate level before testing. Eight (8) non-target strains were tested. A pure culture of the strains in Brain Heart Infusion Broth was performed at the optimal growth temperature of the strains then enumerated to obtain a countable number of colonies on Petri dishes.

3.3.2. Results

3.3.2.1. Initial validation study

- **Target strains**

The fifty strains of *Escherichia coli* gave typical colonies on REBECCA and REBECCA+EB: blue to blue violet with or without a blue halo.

- **Non-target strains**

The twenty-two non-target strains did not give characteristic aspect onto the REBECCA medium:

- No growth for 21 strains,
- Growth on REBECCA and REBECCA+EB agar media with typical colonies for 1 strain of *Shigella sonnei* R80 (ATCC 9290). However, the scientific literature mentions that some *Shigella* strains, and especially *S. sonnei*, possess a β -D-glucuronidase activity, that can explain the presence of typical colonies

3.3.2.2. Second renewal study

Seven (7) non-target strains did not grow on the REBECCA and on the REBECCA+EB agar media. One strain of *Acinetobacter baumannii* gave atypical white colonies on REBECCA plates, very small atypical pink colonies on REBECCA+EB pour plates and atypical pink colonies on REBECCA+EB surface plates.

3.3.3. Conclusion

The inclusivity and the exclusivity of the alternative method are satisfactory.

3.4. Practicability

Practicability is studied as a function of the four criteria defined by the Technical Board in comparing the reference method (ISO 16649-2:2001) with the REBECCA method.

The criteria defined are informed below:

Packaging Volume of reagents	AEB520020: pack of 20 plates of Ø 90 mm, AEB620027: 6 vials of 200 ml base medium AEB184135: EB supplement qsp 1.2 l AEB184135/10: EB supplement qsp 1.2 l x 10 AEB150022: dehydrated REBECCA agar base, flask of 500 g	
Storage conditions and kit	The plates of pre-poured complete medium and Kit REBECCA base must be kept between +2°C and +8°C. The expiry date is shown on each plate and each vial.	
Use after opening of the kit	The pre-poured complete medium plates must be stored at 2-8°C in their package until the expiry date. The plates poured from flasks can be kept up to 15 days at 2-8°C. After rehydration, the REBECCA enrichment supplement can be stored 24 hours between 2 and 8°C, or up to 7 days if frozen (only one freezing/thawing cycle). AEB184135 – AEB184135/10 – AEB520020 must be stored away from light.	
Reagents	Supplements have to be kept protected from light. For the medium in flask, liquefy the medium in a water bath at 100°C and cool to 44-47°C. Per flask of 200 ml of REBECCA medium, add aseptically 1 ml of EB supplement. Homogenize slightly the agar base and the supplement.	
Time to result		
Step	Time required (Day)	Time required (Day)
	REBECCA method	ISO 16649-2 standard
Realization of first dilution and decimal dilutions	D0	D0
Media inoculation	D0	D0
Plates reading, interpretation and calculation	D1	D1
Obtaining negative or positive results if no characteristic colony)	D1	D1
Common step with reference method	Preparation of initial suspension and decimal dilutions.	

3.5. General conclusion for the methods comparison study

The relative trueness study shows a good correlation between the alternative method and the reference method.

The accuracy profile study illustrates that the performances of the alternative method are comparable to those of the reference method.

The alternative method is specific and selective.

Time-to-result is equivalent to that of the reference method (one day), and the alternative method does not require confirmations.

4. Interlaboratory study

The aim of the interlaboratory study, as described in ISO 16140/A1:2011 standard, was to determine the variability of the results obtained in different laboratories using identical samples and to compare these results with those obtained during the methods comparison study.

4.1. Study organization

Twelve (12) collaborators took part in the interlaboratory study. Pasteurized milk was inoculated with an *Escherichia coli* strain coded I69, isolated from a camembert cheese. Only the REBECCA agar media (namely without the EB supplement) was tested.

Eight samples were prepared per collaborator, representing 4 levels of contamination with 2 samples per level. Collaborators and Expert Laboratory carried out the analyses with the reference method and the alternative method.

4.2. Control of experimental parameters

4.2.1. Contamination levels obtained after artificial contamination

The four contamination levels are detailed in the following table.

Table 7: Contamination levels of inoculated samples

Level	Sample	Targeted level (CFU/ml)	Real level (CFU/ml)
Level 0 (L_0)	2 and 8	0	0
Level 1 (L_1)	4 and 7	10-100	24
Level 2 (L_2)	5 and 6	100 - 1000	390
Level 3 (L_3)	1 and 3	1000 - 10 000	4900

4.2.2. Strain stability during shipping

In order to evaluate the *Escherichia coli* strain variability during shipping, bacterial counts of inoculated milk at different levels were checked at different times, during storage at 4°C. Enumeration results (CFU/ml) are reported in table 8.

Table 8: Stability of the *Escherichia coli* strain at 4°C

Day	<i>Escherichia coli</i>					
	Level 1		Level 2		Level 3	
	R1	R2	R1	R2	R1	R2
J0	65	30	380	410	4200	3100
J1	65	50	450	530	4000	4000
J2	30	60	450	430	4700	4500

The results showed a stability of the strain in the shipping conditions.

4.2.3. Shipping conditions

Temperatures registered by the temperature probe during shipping were between 0.9°C and 2.6°C. The temperatures at reception are recorded in the following table.

Table 9: temperatures at reception

Collaborator	Temperature (°C)	State of the samples	Probe temperature (°C)	
			Mean	Standard deviation
A	2,4	Correct	1,8	0,9
B	4,0	Correc	1,8	0,7
C	5,4	Correc	0,9	1,5
D	5,9	Correc	1,6	0,8
E	4,3	Correc	2,3	0,8
F	3,5	Correc	2,6	1,1
G	4,5	Correc	2,1	1,2
H	3,1	Correc	2,4	1,4
I	5,4	Correc	1,1	1,4
J	6,6	Correc	1,5	1,2
K	4,9	Correc	2,2	0,8
L	2,1	Correc	/	/

All collaborators received the packages and the reagents in one day, except:

- Collaborator E which received a part of the reagents one day after the samples,
- Collaborators K and L which received their packages in two days.

The data from collaborators E, K and L were excluded from the final analysis of the results.

4.2.4. Conclusion

The results of 9 collaborators were exploited.

4.3. Results

4.3.1. Expert laboratory

Results obtained for the Expert Laboratory are presented in the table 10.

Table 10: Results of the Expert Laboratory (in CFU/ml)

Level	Reference method		Alternative method	
	Duplicate 1	Duplicate 2	Duplicate 1	Duplicate 2
L_0	<10	<10	<10	<10
L_1	25	60	20	40
L_2	370	350	420	410
L_3	2100	3900	3700	3200

Results according to the ISO 16649-2 standard and according to the alternative method were in agreement.

4.3.2. Results obtained by the collaborators

Detailed results of the 9 laboratories which realized the analysis are presented in Appendix H.

The results are summarized in the table 11 for the low level L_1 , intermediate level L_2 and high level L_3 .

Table 11: Results in CFU/ml of the collaborators per level of contamination (RM: reference method, AM: alternative method, D: duplicate)

Collaborator	L_1				L_2				L_3			
	RM		AM		RM		AM		RM		AM	
	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
A	15	20	20	70	340	320	440	370	4800	4500	2900	5100
B	25	55	10	10	410	420	380	300	3800	3900	4100	3600
C	40	45	30	50	460	390	350	280	4100	4300	3100	4500
D	40	35	50	40	360	370	460	430	4500	4900	4200	4500
F	40	30	40	50	420	370	220	290	4000	5400	4700	3900
G	40	25	40	40	460	430	300	360	5000	5100	4800	3700
H	55	65	100	30	420	370	340	420	5700	4500	4700	4500
I	65	75	40	40	390	420	310	400	4500	4500	4500	4500
J	35	25	10	40	450	350	370	400	5000	3400	4000	3500

It's important to note that a part of the results of the level L_1 do not fulfill the requirements of the standard EN ISO 7218/A1:2013 for the low counts of colonies (§ 10.3.2.4.1). Because of the low levels of *E. coli* inoculated, some results are expressed despite of their concentration inferior to 40 CFU/g (less than 4 colonies on Petri dishes for the enumeration of the initial suspension) while they should be noted: "Microorganisms are present but less than 40 per ml".

Eight results of the reference method and six results of the alternative method are concerned.

After the presentation of the project of renewal study of the method in July 2019, the Technical Board agreed with the proposition of the Expert Laboratory to still interpret all the data of the level L_1 .

4.3.3. Conclusion

Results of 9 laboratories were finally statistically exploited.

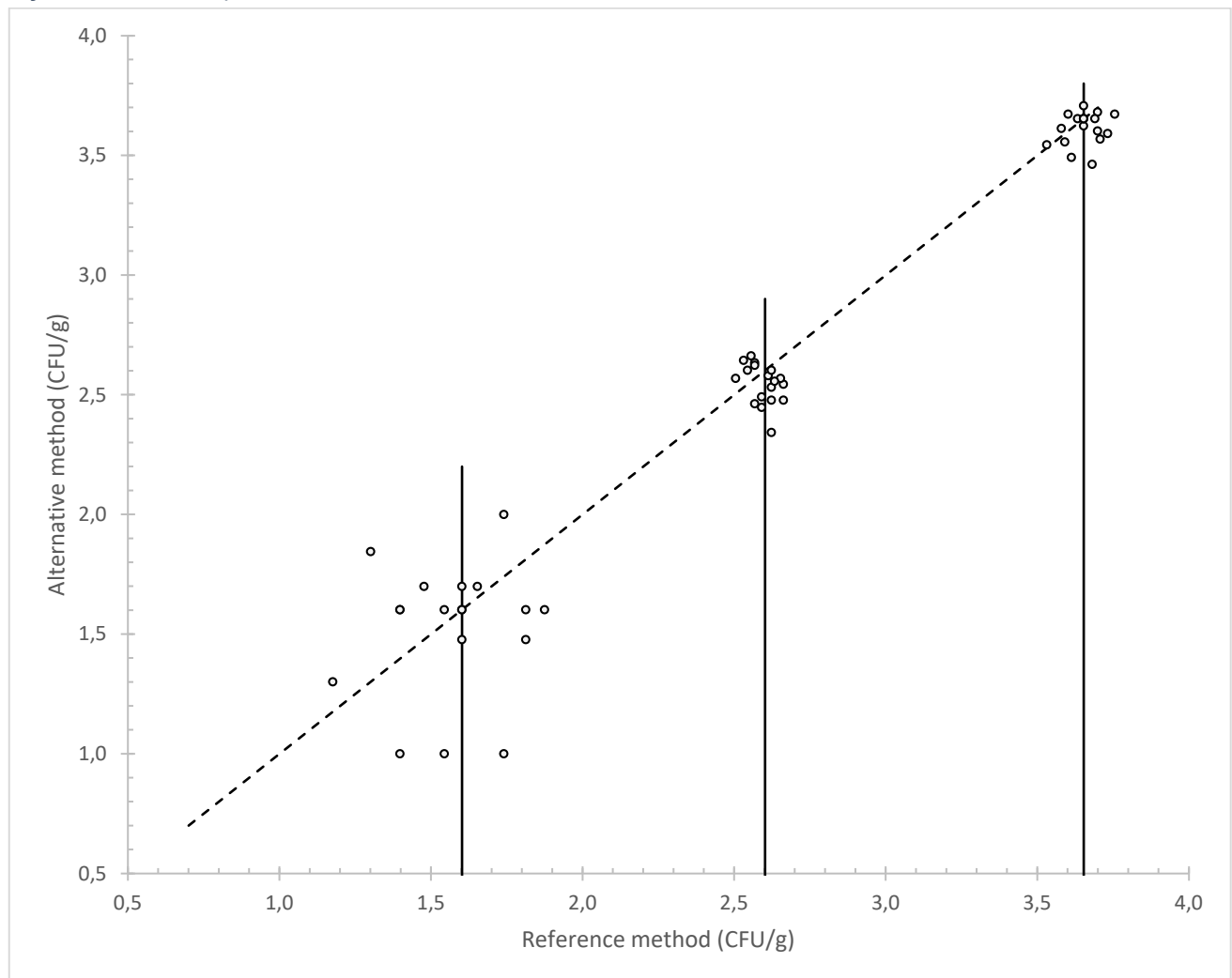
The results obtained by the collaborators were in agreement with those of the Expert Laboratory.

4.4. Statistical interpretations and calculations

4.4.1. Visual linearity checking

After the log10 transformation of all test results, data are plotted with the results of the reference method on the x-axis and the results of the alternative method on the y-axis (figure 17).

Figure 17: Scatter plot of reference-method versus alternative-method results for the interlaboratory study (dotted line: first bisecting line, vertical lines: medians of the measurements obtained with the reference method)



Data are well balanced around the median values of the reference method for each level, but a very slight negative bias is observed for the alternative method at all levels of contamination.

4.4.2. Calculation of the accuracy profile and interpretation

An accuracy profile is drawn according to the calculations provided in the Excel spreadsheet named [AP calculation tool ILS \(clause 6-2-3 Calculations summary and interpretation of data\) ver 14-03-2016.xlsx](#), available at: <http://standards.iso.org/iso/16140/-2/ed-1/en>.

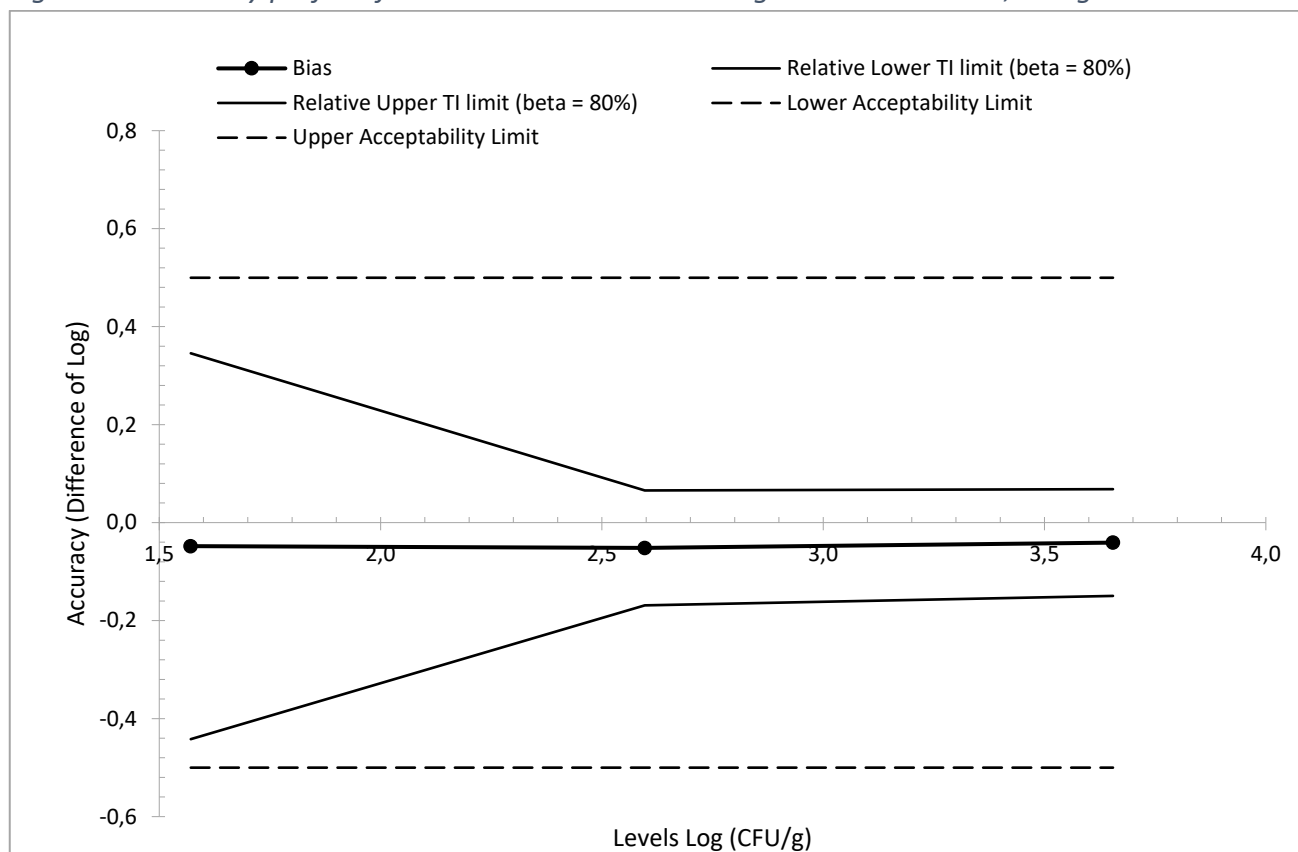
The results of the calculations are provided in table 12.

The graphical representation of the accuracy profile lies in figure 18.

Table 12: Summary of the accuracy profile calculations (AL: acceptability limit, TI: tolerance interval, SD: standard deviation)

Tolerance probability (beta)	80%	80%	80%			
Acceptability limit in log (lambda)	0.50	0.50	0.50			
Levels	Alternative method			Reference method		
	Low	Medium	High	Low	Medium	High
Target value	1.571	2.597	3.655			
Number of participants (K)	9	9	9	9	9	9
Average for alternative method	1.523	2.545	3.614	1.571	2.597	3.655
Repeatability standard deviation (sr)	0.236	0.062	0.079	0.112	0.038	0.057
Between-labs standard deviation (sL)	0.158	0.056	0.000	0.157	0.027	0.000
Reproducibility standard deviation (sR)	0.284	0.084	0.079	0.193	0.046	0.057
Corrected number of dof	14.967	13.446	16.941	11.187	14.757	16.941
Coverage factor	1.389	1.401	1.370			
Interpolated Student t	1.341	1.348	1.334			
Tolerance interval standard deviation	0.2937	0.0871	0.0816			
Lower TI limit	1.129	2.428	3.505			
Upper TI limit	1.917	2.663	3.723			
Bias	-0.048	-0.052	-0.041			
Relative Lower TI limit (beta = 80%)	-0.442	-0.169	-0.149			
Relative Upper TI limit (beta = 80%)	0.346	0.066	0.068			
Lower Acceptability Limit	-0.50	-0.50	-0.50			
Upper Acceptability Limit	0.50	0.50	0.50			
Pooled repro standard dev of reference	0.119					

Figure 18: Accuracy profile of the alternative method using $\beta = 80\%$ and $\lambda = 0,50 \log_{10}$ unit



The AL is met for all the contamination levels: the tolerance interval limits of the alternative method are within the acceptability limits of 0.5 log CFU/g

4.5. General conclusion for the interlaboratory study

The tolerance intervals of all levels of contamination fall within the default acceptability limits (± 0.5 log CFU/ml).

Despite the very slight bias observed for the all levels of contamination (from -0.052 to -0.041 log CFU/ml), the alternative method is regarded as being equivalent to the reference method.

5. General conclusion

The data and the interpretation of the methods comparison study and of the interlaboratory study fulfilled the requirements of the EN ISO 16140-2:2016 standard. The REBECCA method is considered as equivalent to the reference method described in the ISO 16649-2:2001 standard.

Le Lion d'Angers, December 31, 2019

François Le Nestour

Head of the Microbiology Department

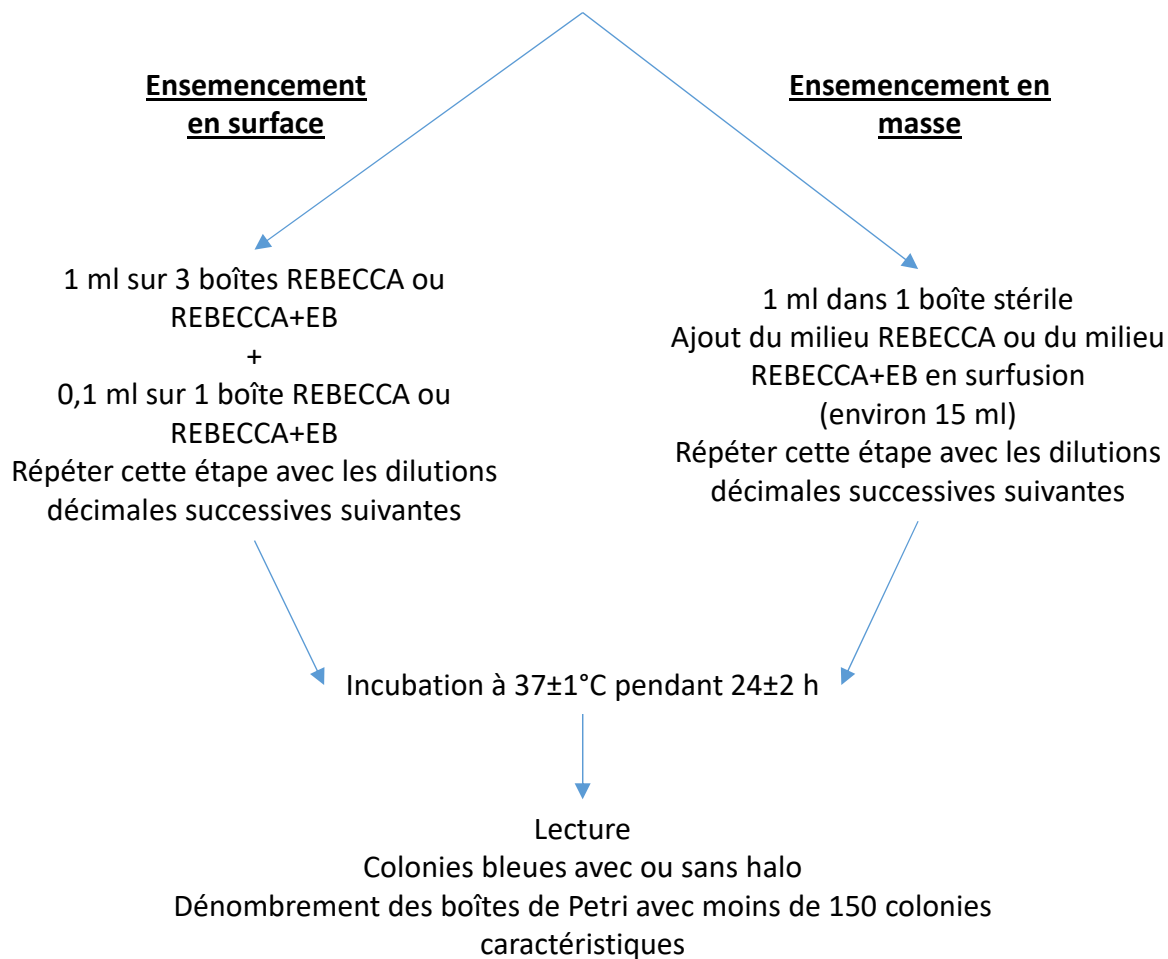
A handwritten signature in black ink, consisting of a stylized 'F' and 'N' followed by a large, sweeping loop.

APPENDICES

APPENDIX A

PROTOCOLE DE LA METHODE REBECCA BASE OU REBECCA+EB

Préparation et dilution de l'échantillon selon la norme EN ISO 6887



APPENDIX B

PROTOCOLE DE LA METHODE DECRITE DANS LA NORME **NF ISO 16649-2**

Préparation et dilution de l'échantillon selon la norme EN ISO 6887



1 ml dans 1 boîte stérile
Ajout du milieu TBX en surfusion
(environ 15 ml)
Répéter cette étape avec les dilutions
décimales successives suivantes



Incubation à 44±1°C pendant 21±3 h
Réaliser une incubation préalable à 37±1°C
si la présence de microorganismes est soupçonnée



Lecture
Colonies bleues
Dénombrement des boîtes avec moins de 150 colonies
caractéristiques et moins de 300 colonies au total

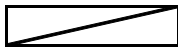
APPENDIX C - Artificial contaminations

Study	Strain	Code	Origin	Stress type	Treatment and intensity	Samples	Number of uses
Initial validation study	<i>Escherichia coli</i>	I58	Beef pellets	Spiking	20 min. à 56°C (0.8)	RD 1430 /1431	2
	<i>Escherichia coli</i>	I72	Raw shrimps	Spiking	20 min. à 56°C (0.8)	RD 1427 / 1428 / 1429	3
	<i>Escherichia coli</i>	I63	Minced pork	Spiking	2 semaines à -20°C (0.8)	RD 1435, RD 1436	2
	<i>Escherichia coli</i>	I79	Raw shelled shrimps	Spiking	2 semaines à -20°C (0.6)	RD 1432 /1433 / 1434	3
Renewal study	<i>Escherichia coli</i>	EAR487	Beef tongue	Seeding	48 to 72 h at 5°C	1698402 - 1698403 - 1698404 - 1698405 -1698406 - 1698407	6
	<i>Escherichia coli</i>	FBV114	Environment dairy products	Seeding	48 to 72 h at 5°C	1698408 - 1698409 - 1698410 - 1698411	4
	<i>Escherichia coli</i>	GAR051	Raw tongues	Seeding	48 to 72 h at 5°C	1698412 - 1698413 - 1698414 - 1698415	4
	<i>Escherichia coli</i>	BCF262	Aa nori seaweed	Seeding	48 to 72 h at 5°C	1698416 - 1698417 - 1698418 - 1698419 - 1698420	5
	<i>Escherichia coli</i>	GBL293	Chocolate biscuit	Seeding	48 to 72 h at 5°C	1698421 - 1698422	2
	<i>Escherichia coli</i>	EZN508	Chopped steak	Seeding	48 to 72 h at 5°C	1692050 - 1692051 - 1692052 - 1692065 - 1692066	5
	<i>Escherichia coli</i>	TDW583	Raw milk cheese	Seeding	48 to 72 h at 5°C	1692053 - 1692054 - 1692055	3
	<i>Escherichia coli</i>	XBB696	Fish stew	Seeding	48 to 72 h at 5°C	1714588 - 1714589 - 1714590 - 1714591 - 1714592 -1714593	6
	<i>Escherichia coli</i>	VUR867	Hoki with sauce	Seeding	48 to 72 h at 5°C	1714594 - 1714595 - 1714596 - 1714597 - 1714598 - 1714599	6
	<i>Escherichia coli</i>	DMX101	Seafood galette	Seeding	48 to 72 h at 5°C	1714600 - 1729341	2
	<i>Escherichia coli</i>	UBS981	Ham croissant	Seeding	48 to 72 h at 5°C	1714601 - 1714602 - 1714603 - 1714604	4
	<i>Escherichia coli</i>	UVS777	Minced beef	Seeding	48 to 72 h at 5°C	1729339 - 1729340	2
	<i>Escherichia coli</i>	TZP821	Hummus and beets	Spiking	15 min at 56°C/cold water (0.9)	1729342	1
	<i>Escherichia coli</i>	UDD835	Spinach, potatoes and bechamel sauce	Seeding	48 to 72 h at 5°C	1729344 - 1729345	2

APPENDIX D

Trueness study raw results

Key:



replicate analyzed during the initial validation study,
not considered as part of the renewal study ac. EN ISO 16140-2:2016



not realized: only one replicate analyzed during the renewal study
ac. EN ISO 16140-2:2016

Results are expressed in CFU/g or ml

nc: not countable



Estimated number



Microorganisms are present but less than 40 per g or ml



Results not countable or inferior to the limit of quantification

Meats products

Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2 (■ for the renewal study)						REBECCA										REBECCA+EB													
						R1		R2		Result	Result	Surface spreading				Pour plate				Dil.		R1		R2		Result	Result	Dil.		R1		R2		Result	Result
						CFU/plate 1	CFU/plate 2	CFU/plate 1	CFU/plate 2			Dil.	R1 CFU	R2 CFU	Result	Result	Dil.	R1 CFU	R2 CFU	Result	Result	Dil.	R1 CFU	R2 CFU											
Initial validation study	HA 4187	Saucisse aux herbes crue	No	c	-1	39	27	34	22	310	280	-2	4	0	400	600	-1	43	36	420	360	-2	6	3	600	360	-1	48	22	490	240				
	MV 1916	Merguez	No	c	-1	2	3	3	4	25	25	-1	3	3	30	30	-1	7	4	70	40	-1	2	3	20	30	-1	5	3	50	30				
	HA 4490	Carré d'agneau	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	RG 3028	Filet de canette cru	No	a	-1	24	24	15	25	240	220	-2	4	3	400	300	-1	31	31	310	320	-2	2	3	200	300	-1	26	35	250	240				
	V 7798	Joues de porc	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	Q 2272	Farce	No	c	-1	>150	>150	>150	>150	2600	2120	-2	33	48	3000	4600	-1	>150	>150	3200	3200	-2	29	35	2900	3500	-1	>150	>150	2200	3600				
	VR 4755	Merguez de veau	No	c	-3	8	10	7	5	9000	6000	-3	12	11	12000	11000	-3	16	5	16000	9000	-3	8	15	8000	13000	-3	13	10	14000	16000				
	VI 320	Mélange dinde/veau/poulet	No	b	-1	36	32	36	38	360	370	-2	8	7	800	700	-1	26	44	280	445	-2	5	6	500	600	-1	35	40	390	465				
	VR 4768	Steack haché	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	VI 585	Tartare de boeuf	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	VR 4754	Filet de poulet cru	No	a	-1	3	3	3	5	30	40	-1	3	4	30	40	-1	6	3	60	30	-1	3	3	30	30	-1	2	3	20	30				
	VI 717	Foies de volailles	No	b	-1	>150	>150	>150	>150	13000	11550	-2	116	140	11000	14000	-1	>150	>150	11000	11700	-2	126	140	13000	11000	-1	>150	>150	14000	13300				
	DJ 3712	V viande	No	a	-1	22	26	21	35	250	265	-2	2	3	200	300	-1	42	40	430	410	-2	2	3	200	300	-1	36	27	390	282				
	VR 5168	Poulet	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	HA 4696	Bavette	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	VI 946	Poulet	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	HA 4940	Chipolatas	No	c	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	VI 1051	Poulet mariné	No	a	-1	0	0	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10				
	VR 5152	Kebab	No	b	-1	6	6	8	5	60	65	-2	1	1	100	100	-1	15	10	150	180	-2	1	1	100	180	-1	13	7	130	70				
Renewal study	1698415	Jarret cuit	Yes	b	-1	10				100		-1	16		150		-1	23		220		-1	14		140		-1	21		200					
	1691982	VSM	No	a	-2	27				2700		-2	34		3400		-2	33		3300		-2	25		2500		-2	20		1900					
	1691981	Filet de dinde	No	a	-2	19				1800		-2	15		1500		-2	16		1600		-2	23		2300		-2	13		1300					
	1691980	VSM	No	a	-1	119				1300		-1	145		1400		-1	116		1100		-1	nc		1800		-1	nc		1500					
	1692012	Haut de cuisse de dinde	No	a	-2	nc				88000		-2	nc		65000		-2	nc		65000		-2	>150		15000		-2	nc		83000					
	1692019	Saucisses aux herbes	No	c	-1	nc				1400		-1	nc		1300		-1	nc		1200		-1	nc		1600		-1	nc		1500					
	1692021	Merguez	No	c	-2	0				<10		-2	0		<10		-2	0		<10		-2	0		<10		-2	0		<10					
	1692046	Allumettes fumées de canard	No	c	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10					
	1692047	Lardons natures	No	c	-2	0				<10		-2	0		<10		-2	0		<10		-2	0		<10		-2	0		<10					
	1692048	Salami	No	c	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10					
	1692049	Bacon	No	c	-2	0				<10		-2	0		<10		-2	0		<10		-2	0		<10		-2	0		<10					
	1692065	Allumettes fumées de canard	Yes	c	-1	0				<10		-1	4		40		-1	1		10		-1	2		20		-1	0		<10					
	1692051	Parmentier de bœuf	Yes	b	-1	2				20		-1	4		40		-1	1		10		-1	4		40		-1	2		20					
	1698407	Aiguillette de poulet cuite	Yes	b	-3	36				36000		-3	42		42000		-3	38		38000		-3	21		21000		-3	36		36000					
	1698412	Quiche lorraine	Yes	b	-2	1				90		-2	2		160		-2	2		170		-2	4		180		-2	4		130					
	1726643	Jambon sec	No	c	-1	40				430		-1	33		340		-1	32		320		-1	35		330		-1	37		370					
	1729339	Sauce bolognaise	Yes	b	-2	2				180		-2	1		130		-2	2		150		-2	1		130		-2	2		150					
	1729340	Viande de veau hachée	Yes	a	-1	7				70		-1	6		60		-1	8		80		-1	8		80		-1	7		70					

Dairy and egg products

Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2 (■ for the renewal study)						REBECCA										REBECCA+EB															
						R1		R2		Result	Result	Surface spreading				Pour plate				Dil.	Surface spreading				Pour plate				Dil.	Surface spreading				Pour plate			
						CFU/plate	CFU/plate	CFU/plate	CFU/plate			CFU	CFU	Result	Result	CFU	CFU	Result	Result		CFU	CFU	Result	Result	CFU	CFU	Result	Result									
Initial validation study	M 46205	Crème fraîche fluide	No	a	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-2 -3	0 0	<100	<100	-2 -3	0 0	<10	<10	-2 -3	0 0	<100	<100	-2 -3	0 0	<10	<10	-2 -3	0 0	<100	<100	-2 -3	0 0	<10	<10		
	VI 559	Roquefort	No	b	-2 -3	0 20	0 16	0 21	0 20	<10	<10	-2 -4	0 18	0 23	<100	<100	-2 -3	0 20	<10	<10	-2 -3	0 15	<100	<100	-2 -3	0 23	<10	<10	-2 -3	0 15	<100	<100	-2 -3	0 23	<10	<10	
	R 36162	Camembert	No	b	-4 -4	3 3	3 3	3 3	3 3	19000	19100	-4 -4	1 1	1 1	17000	24800	-4 -3	3 20	3 20	21000	20800	-4 -3	2 12	2 12	15000	20800	-4 -3	23 23	22000	25400	-4 -3	23 23	22000	25400			
	MV 2444	Fromage	No	a	-1 -2	48 4	69 4	64 4	68 4	570	610	-1 -2	51 4	61 5	500	500	-1 -2	54 7	61 3	550	500	-1 -2	51 1	62 4	470	680	-1 -2	43 4	430	680	-1 -2	43 4	430	680			
	R 36786	Camembert	No	b	-4 -5	108 13	110 6	108 12	125 13	1100000	1308000	-4 -5	62 15	88 14	700000	934005	-4 -5	140 15	110 14	1400000	1108000	-4 -5	55 4	81 0	500000	464005	-4 -5	127 9	124 11	1200000	1114006	-4 -5	127 9	124 11	1200000	1114006	
	R 36889	Camembert	No	b	-6 -7	9 0	5 0	5 0	7 1	7000000	6008000	-6 -7	9 1	3 1	9000000	300000	-6 -7	10 1	10 1	9100000	1008000	-6 -7	2 1	0 0	2000000	904006	-6 -7	11 1	7 1	10000000	704006	-6 -7	11 1	7 1	10000000	704006	
	R 37297	Camembert	No	b	-3 -4	36 5	43 6	33 5	42 4	41000	29800	-3 -4	57 10	36 7	61000	40800	-3 -4	51 5	42 6	51000	44800	-3 -4	49 3	39 0	47000	411404	-3 -4	42 5	35 2	43000	364004	-3 -4	42 5	35 2	43000	364004	
	RD 1375	Brie	No	b	-1 -2	1 0	2 0	2 0	1 0	15	15	-1 -2	1 0	1 0	10	10	-1 -2	1 0	1 0	10	10	-1 -2	1 0	1 0	10	10	-1 -2	1 0	1 0	10	10	-1 -2	1 0	1 0	10	10	
	VR 4896	Glace antillaise	No	a	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-2 -3	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-2 -3	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10	
	RD 1300	Gaperon	No	b	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-2 -3	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-2 -3	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10	
	RD 1376	Camembert	No	b	-1 -2	58 9	64 7	41 6	46 7	630	960	-1 -2	10 6	10 6	910	900	-1 -2	72 6	44 13	710	660	-1 -2	4 0	0 0	400	380	-1 -2	74 10	50 7	760	560	-1 -2	74 10	50 7	760	560	
	RD 1368	Reblochon	No	b	-2 -3	91 4	70 5	87 0	85 0	7700	8900	-2 -3	82 12	83 7	8500	8260	-2 -3	71 8	76 3	7200	7480	-2 -3	84 11	72 0	8600	7900	-2 -3	68 6	78 0	6700	7900	-2 -3	68 6	78 0	6700	7900	
	RD 1382	Saint-Nectaire	No	b	-1 -2	99 17	101 7	92 6	102 10	1000	1000	-1 -2	89 10	85 14	900	980	-1 -2	100 12	100 11	1000	1000	-1 -2	99 11	100 10	1000	1000	-1 -2	100 10	111 13	1000	1150	-1 -2	100 10	111 13	1000	1150	
	W 14564	Emmental	No	b	-1 -2	37 3	44 5	46 0	48 0	400	480	-1 -2	25 0	46 0	230	245	-1 -2	46 1	57 6	430	580	-1 -2	29 3	41 4	290	480	-1 -2	34 6	32 2	360	380	-1 -2	34 6	32 2	360	380	
	R 36986	Camembert	No	b	-1 -2	149 32	150 24	150 24	147 32	1600	1600	-1 -2	12 5	18 4	1500	1227	-1 -2	133 18	137 13	1400	1380	-1 -2	9 1	13 2	900	1540	-1 -2	136 8	168 6	1300	1090	-1 -2	136 8	168 6	1300	1090	
Renewal study	1691972	Lait cru	No	b	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691973	Lait cru	No	b	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691974	Lait pasteurisé	No	a	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691975	Pâte à gâteau	No	c	-1 -2	nc 28	nc 28	nc 28	nc 28	2800	2800	-1 -2	nc 28	nc 28	2800	2800	-1 -2	nc 27	nc 30	2700	2700	-1 -2	nc 30	nc 30	3000	2000	-1 -2	nc 20	nc 20	2000	2000	-1 -2	nc 20	nc 20	2000	2000	
	1691976	Tomme de Savoie LC	No	b	-2 -3	nc 31	nc 31	nc 31	nc 31	31000	31000	-2 -3	nc 27	nc 27	27000	27000	-2 -3	nc 24	nc 41	24000	24000	-2 -3	nc 41	nc 41	41000	26000	-2 -3	nc 26	nc 26	26000	26000	-2 -3	nc 26	nc 26	26000	26000	
	1691977	Camembert	No	a	-1 -2	106 14	110 14	106 14	110 14	1100	1100	-1 -2	71 9	730	730	730	-1 -2	60 5	590	590	590	-1 -2	48 1	450	450	450	-1 -2	60 10	640	640	640	-1 -2	60 10	640	640	640	
	1691978	Yaourt de chèvre	No	a	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691979	Gâteau au chocolat	No	c	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691983	Jaune d'œuf liquide	No	c	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691984	Tiramisu aux fraises	No	c	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1691989	Lait cru	No	b	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	10	10	10	-1 -2	0 0	10	10	10	10	-1 -2	0 0	20	20	-1 -2	0 0	20	20	20		
	1692008	Chaurice LC	No	b	-1 -2	1 0	1 0	1 0	1 0	10	10	-1 -2	1 0	10	10	10	-1 -2	1 0	10	10	10	-1 -2	1 0	<10	10	10	-1 -2	1 0	10	10	-1 -2	1 0	10	10	10		
	1692010	Langres LC	No	b	-1 -2	nc 13	nc 13	nc 13	nc 13	1300	1300	-1 -2	nc 6	600	600	600	-1 -2	nc 10	1000	1000	1000	-1 -2	nc 12	790	790	-1 -2	nc 10	1000	1000	1000	-1 -2	nc 10	1000	1000	1000		
	1692014	Tomme angevine LP	No	a	-1 -2	94 6	94 6	94 6	94 6	910	910	-1 -2	66 14	730	730	730	-1 -2	92 12	950	950	950	-1 -2	73 11	760	760	-1 -2	88 16	950	950	950	-1 -2	88 16	950	950	950		
	1692016	Curé nantais LC	No	b	-1 -2	12 1	12 1	12 1	12 1	120	120	-1 -2	12 1	120	120	120	-1 -2	12 1	120	120	120	-1 -2	7 1	70	70	-1 -2	14 0	130	130	130	-1 -2	14 0	130	130	130		
	1692008	Mousse pistache	No	c	-1 -2	0 0	0 0	0 0	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10	-1 -2	0 0	<10	<10		
	1692054	Crème fraîche	Yes	a	-1 -2	2 0	2 0	2 0	2 0	20	20	-1 -2	5 0	50	50	50	-1 -2	9 1	90	90	90	-1 -2	1 0	10	10	10	-1 -2	1 0	30	30	-1 -2	1 0	30	30	30		
1692055	Yaourt	Yes	a	-1 -2	3 0	3 0	3 0	3 0	30	30	-1 -2	2 0	20	20	20	-1 -2	7 1	70	70	70	-1 -2																

Seafood products

Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2 (■ for the renewal study)						REBECCA								REBECCA+EB															
						R1		R2		R1 Result	R2 Result	Surface spreading				Pour plate				Surface spreading				Pour plate											
						CFU/plate 1	CFU/plate 2	CFU/plate 1	CFU/plate 2			Dil.	CFU	CFU	Result	Result	Dil.	CFU	CFU	Result	Result	Dil.	CFU	CFU	Result	Result									
Initial validation study	VI 397	Crevettes cuites	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<10	<10
	S 10132	Salade d'écrevisses	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<10	<10
	M 46488	Tarama	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<10	<10
	HA 4520	Crevettes impériales	No	a	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<10	<10
	HA 4599	Taboulé de la mer	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<100	<100	-1 -2	<1 1	<1 1	<10	<10	-2 -3	<1 1	<1 1	<10	<10
	S 9942	Salade océane	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10
	RG 3033	Presse de sole	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10
	VI 311	Saumon mariné	No	b	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10
	Q 2271	Raviolis aux crevettes	No	c	-3 -4	37 5	44 2	36 11	40000	3,8E+04	-3 -4	34 4	45 4	35000	4,5E+04	-3 -4	38 3	35 2	37000	3,4E+04	-3 -4	35 3	35 1	35000	3,3E+04	-3 -4	39 4	34 2	39000	3,3E+04	-3 -4	39 4	34 2	39000	3,3E+04
	C 85	Tartare de bar	No	a	-1 -2	78 9	78 6	84 8	780	810	-2 -3	5 2	7 2	500	700	-1 -2	69 4	95 10	660	940	-2 -3	9 0	10 1	660	940	-1 -2	68 4	76 10	650	780	-2 -3	4 10	76 10	650	780
	MV 2234	Taboulé de la mer	No	c	-1 -2	7 0	0 0	4 0	35	40	-1 -2	3 0	4 0	30	40	-1 -2	6 2	2 1	60	20	-1 -2	3 0	3 0	30	30	-1 -2	3 2	3 1	30	30	-1 -2	3 2	3 1	30	30
	DJ 3253	Brioche porc crevettes	No	c	-2 -3	139 23	142 17	121 17	15000	1,3E+04	-2 -3	148 17	166 19	15000	1,6E+04	-2 -3	135 10	136 19	13000	1,4E+04	-2 -3	126 14	128 12	13000	1,3E+04	-2 -3	130 10	137 15	13000	1,4E+04	-2 -3	130 10	137 15	13000	1,4E+04
	VR 5037	Bouchées aux crevettes	No	c	-2 -3	57 5	34 11	48 10	4900	4800	-2 -3	33 5	28 5	3500	3900	-2 -3	57 5	44 6	5600	4545	-2 -3	41 7	42 1	4400	3900	-2 -3	48 2	55 11	4500	5920	-2 -3	48 2	55 11	4500	5920
	DJ 3789	raviolis pékinois	No	c	-4 -5	92 12	96 16	107 10	980000	1,1E+06	-4 -5	126 16	136 16	1300000	1,4E+06	-4 -5	102 9	112 11	1000000	1,1E+06	-4 -5	140 16	86 16	1400000	9,3E+05	-4 -5	135 12	135 10	1300000	1,3E+06	-4 -5	135 12	135 10	1300000	1,3E+06
	C 118	Moules	No	c	-1 -2	0 0	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<100	<100	-1 -2	0 0	0 0	<10	<10	-2 -3	0 0	0 0	<10	<10
	MV 2921	Farce de nem au poisson	No	c	-1 -2	26 1	15 0	29 0	190	240	-1 -2	49 0	44 0	450	400	-1 -2	38 7	24 3	410	245	-1 -2	47 0	42 0	430	380	-1 -2	33 5	24 7	350	285	-1 -2	33 5	24 7	350	285
	HA 5284	Hareng fumé	No	b	-1 -2	30 6	80 6	40 2	550	380	-2 -3	7 1	6 0	700	600	-2 -3	5 0	6 0	500	600	-2 -3	4 0	5 1	400	500	-2 -3	5 0	8 0	500	800	-2 -3	5 0	8 0	500	800
	Q 2235	Bouchées aux crevettes	No	c	-1 -2	12 1	17 2	9 2	150	95	-1 -2	22 0	26 0	200	240	-1 -2	26 5	27 8	280	320	-1 -2	35 3	44 1	350	436	-1 -2	35 6	39 8	370	409	-1 -2	35 6	39 8	370	409
	CI 141	Saumon	No	a	-1 -2	39 2	40 4	34 3	390	380	-1 -2	17 0	25 0	150	210	-1 -2	19 5	17 6	220	210	-1 -2	18 2	15 2	180	180	-1 -2	22 1	17 3	210	180	-1 -2	22 1	17 3	210	180
Renewal study	1691992	Filet de merlan	No	a	-1 -2	0 0			<10		-1 -2	0 0		<10		-1 -2	0 0		<10		-1 -2	0 0		<10		-1 -2	0 0		<10		-1 -2	0 0		<10	
	1691995	Dos de cabillaud	No	a	-1 -2	0 0			<10		-1 -2	0 0		10		-1 -2	0 0		<10		-1 -2	0 0		<10		-1 -2	0 0		<10		-1 -2	0 0		<10	
	1691999	Pavé de saumon	No	a	-1 -2	0 0			<10		-1 -2	0 0		<10		-1 -2	0 0		10		-1 -2	0 0		10		-1 -2	0 0		<10		-1 -2	0 0		<10	
	1714591	Saumon fumé	Yes	b	-1 -2	9 0			90		-1 -2	10 1		100		-1 -2	10 0		90		-1 -2	9 0		90		-1 -2	8 0		80		-1 -2	8 0		80	
	1714592	Anchois marinés	Yes	b	-1 -2	14 1			140		-1 -2	13 1		130		-1 -2	15 0		140		-1 -2	12 1		120		-1 -2	13 0		120		-1 -2	13 0		120	
	1714593	Hareng fumé	Yes	b	-1 -2	13 1			130		-1 -2	12 1		120		-1 -2	16 0		150		-1 -2	11 0		100		-1 -2	15 0		140		-1 -2	15 0		140	
	1714595	Sardine	Yes	a	-1 -2	12 0			110		-1 -2	9 0		80		-1 -2	13 1		130		-1 -2	12 1		120		-1 -2	10 0		90		-1 -2	10 0		90	
	1714596	Cabillaud	Yes	a	-1 -2	17 1			160		-1 -2	13 1		130		-1 -2	18 1		170		-1 -2	15 0		140		-1 -2	18 1		170		-1 -2	18 1		170	
	1714599	Hareng fumé poivre	Yes	b	-1 -2	17 2			170		-1 -2	10 1		100		-1 -2	13 1		130		-1 -2	10 1		100		-1 -2	13 0		120		-1 -2	13 0		120	
	1729341	Filet de merlan	Yes	a	-2 -3	56 4			5500		-2 -3	32 5		3400		-2 -3	43 3		4200		-2 -3	41 4		4100		-2 -3	63 7		6400		-2 -3	63 7		6400	

Vegetal products																																
Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2 (■ for the renewal study)						REBECCA												REBECCA+EB								
						R1		R2		Result	Dil.	Surface spreading				Pour plate				Surface spreading				Pour plate								
						CFU/plate	CFU/plate	CFU/plate	CFU/plate			R1	R2	Result	Result	R1	R2	Result	Result	R1	R2	Result	Result									
						1	2	1	2			1	2	1	2	1	2	1	2	1	2	1	2									
Initial validation study	Q 2237	Déchets de pâte recyclés	No	b	-3	44	39	45	47	41000	45000	-3	56	62	60	55000	61000	-3	62	60	61000	59000	-3	50	46	49000	47000	-3	48	57	46000	54000
	S 9937	Salade composée	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	S9941	Salade végétarienne	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	VI 313	Tajine de légumes	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	VI 279	Concombres en sauce	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	VR 4497	Salade de pommes de terre	No	c	-1	71	73	82	85	700	770	-2	13	12	12	1400	1200	-2	96	87	950	980	-2	12	14	1200	1400	-2	9	15	820	1200
	VI 413	Thé en feuilles	No	a	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	DJ 3361	Salade riz tomates	No	c	-1	2	3	2	5	25	35	-1	6	6	6	60	60	-1	5	7	50	70	-1	4	4	40	60	-1	3	4	30	60
	MV 2163	Salade tomates mozzarella	No	c	-1	11	9	14	14	90	125	-1	8	8	8	80	60	-1	9	9	90	90	-1	5	7	50	70	-1	6	10	60	100
	DJ 3510	Salade tomate maïs (3 ml)	No	c	-1	3	4	2	1	35	35	-1	2	2	2	20	30	-1	1	3	10	30	-1	2	3	20	30	-1	1	4	10	30
	HA 4680	Pains aux raisins	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	VI 844	Nouilles fraîches	No	c	-1	35	27	48	30	320	380	-1	36	44	35	430	430	-1	45	52	460	580	-1	38	41	360	480	-1	48	52	480	530
	DJ 3849	Salade croquante	No	b	-1	8	7	1	7	75	55	-1	6	6	6	60	50	-1	3	3	30	30	-1	4	6	40	60	-1	6	5	60	60
	MV 2552	Dés de tomates	No	a	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	RD 1460	Macédoine de légumes	No	c	-3	35	43	45	50	39000	4,74+04	-3	32	30	30	34000	3,14+04	-3	50	45	48000	4,56+04	-3	30	28	28000	2,64+04	-3	39	64	39000	6,54+04
	R 37062	Salade céleri raisin	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	<10	<10	-2	0	0	<100	<100	-1	0	0	<10	<10
	RD 1461	Salade de fruits	No	c	-4	56	49	58	58	510000	6,34+05	-4	42	50	50	410000	5,84+05	-4	77	81	750000	5,72+05	-4	43	50	400000	5,14+05	-4	76	82	720000	4,34+05
	RD 1462	Mélange de crudités	No	b	-2	79	62	67	66	7200	6200	-2	101	106	97	9700	10400	-2	99	81	9600	9100	-2	63	79	6100	7900	-2	61	66	6100	5600
Renewal study	1692037	Oignons crus	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692038	Poivrons verts	No	b	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1691985	Menthe	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1691986	Aneth	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692002	Poêlée champêtre	No	b	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692023	Ciboulette	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692043	Haricots mungo	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692034	Mélange de laitue	No	b	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692039	Carottes crues	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692004	Poêlée de légumes	No	b	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692041	Echalottes crues	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1692042	Poireaux crus	No	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1698416	Carottes râpées non assaisonnées	Yes	b	-1	20				210		-1	18		180		-1	25		250		-1	22		250		-1	20		210		
	1698417	Menthe fraîche	Yes	a	-1	21				220		-1	24		240		-1	23		250		-1	25		250		-1	22		220		
	1698418	Poireau émincé	Yes	a	-1	11				110		-1	9		90		-1	10		100		-1	15		150		-1	6		60		
	1698419	Ciboulette	Yes	a	-1	14				150		-1	17		160		-1	13		130		-1	8		80		-1	8		80		
	1698420	Basilic	Yes	a	-1	10				100		-1	9		100		-1	10		110		-1	24		230		-1	19		180		
	1698421	Mélange de laitue	Yes	b	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1698422	Haricots mungo	Yes	a	-1	0				<10		-1	0		<10		-1	0		<10		-1	0		<10		-1	0		<10		
	1726645	Mélange fruits frais	No	b	-1	18				180		-1	15		150		-1	16		150		-1	11		110		-1	13		150		
	1729344	Mélange mâche betterave	Yes	b	-2	32				3100		-2	46		4900		-2	35		3500		-2	36		3600		-2	37		3600		
	1729345	Mélange chou-fleur, brocoli, chou romanesco surgelé	Yes	a	-3	91				91000		-3	123		120000		-3	106		100000		-3	145		140000		-3	129		130000		

Feed products

Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2 (■ for the renewal study)				REBECCA																REBECCA+EB															
						R1		R2		R1 Result	R2 Result	Surface spreading				Pour plate				Surface spreading				Pour plate				R1 Result	R2 Result												
						CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dil.	R1 CFU	R2 CFU	Result	Result	Dil.	R1 CFU	R2 CFU	Result	Result	Dil.	R1 CFU	R2 CFU	Result	Result															
Initial validation study	RD1410	Viande crue pour animaux	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD1411	Viande crue pour animaux	No	c	-2	0	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10						
	RD1412	Viande crue pour animaux	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD1413	Viande crue pour animaux	No	c	-2	0	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10						
	RD1414	Farine animale	No	c	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD1415	Pâtée pour chat	No	a	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD1416	Pâtée pour chat	No	a	-2	0	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10	-3	0	0	0	<100	<100	-2	0	0	0	<10	<10						
	RD1417	Pâtée pour chat	No	a	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD1418	Pâtée pour chat	No	a	-1	0	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10	-2	0	0	0	<100	<100	-1	0	0	0	<10	<10						
	RD 1427	Farine animale	172	c	-1	6	5	4	2	55	30	-1	3	3	3	30	30	-1	4	5	5	40	50	-1	3	2	2	30	20	-1	7	6	6	70	60						
	RD 1428	Farine animale	172	c	-1	26	22	27	23	250	280	-1	20	36	36	190	330	-1	25	27	27	270	320	-1	30	26	26	290	245	-1	59	42	42	570	420						
	RD 1429	Farine animale	172	c	-2	17	30	20	25	2400	2100	-2	8	9	9	910	900	-2	21	35	35	2200	3200	-2	11	6	6	1100	680	-2	19	24	24	1700	2400						
	RD 1430	Farine animale	158	c	-3	23	28	29	25	26000	2,8E+04	-3	26	15	15	27000	1,5E+04	-3	29	36	36	29000	3,5E+04	-3	20	16	16	18000	1,7E+04	-3	25	41	41	24000	3,8E+04						
	RD 1431	Farine animale	158	c	-4	42	35	35	36	380000	3,3E+05	-4	20	29	29	190000	2,6E+05	-4	47	45	45	510000	4,6E+05	-4	20	23	23	200000	2,5E+05	-4	42	55	55	470000	5,5E+05						
	RD 1432	Pâtée pour chien	179	a	-1	46	52	48	60	480	523	-1	50	47	47	500	445	-1	48	65	65	510	640	-1	49	56	56	460	580	-1	45	54	54	470	530						
	RD 1433	Pâtée pour chien	179	a	-2	125	140	131	129	1300	1300	-1	96	90	90	990	910	-1	94	98	98	950	990	-1	105	139	139	1100	1340	-1	140	125	125	1400	1240						
	RD 1434	Pâtée pour chat	179	a	-5	30	25	16	28	2600000	2,3E+06	-5	26	35	35	2500000	3,2E+06	-5	13	21	21	1400000	2,2E+06	-5	15	26	26	1400000	2,2E+06	-5	38	30	30	3500000	2,7E+06						
	RD 1435	Pâtée pour chat	163	a	-3	15	12	8	10	12000	9600	-2	80	94	94	7700	9200	-2	82	89	89	8200	9900	-2	114	89	89	12000	9300	-2	95	139	139	9100	13800						
	RD 1436	Croquettes	163	a	-3	136	140	132	129	130000	1,3E+05	-3	121	115	115	120000	1,2E+05	-3	136	147	147	130000	1,4E+05	-3	137	142	142	130000	1,4E+05	-3	153	134	134	150000	1,4E+05						
Renewal study	1691987	Granulé d'avoine	No	b	-1	0				<10		-1	0			<10		-1	0			<10		-1	0			<10				-1	0		<10						
	1691988	Tourteau de colza	No	b	-1	3				30		-1	3			30		-1	3			30		-1	1			10				-1	0		<10						
	1692066	Viande crue pour animaux	Yes	c	-1	5				50		-1	4			40		-1	0			<10		-1	0			<10				-1	0		<10						
	1714601	Granulé d'avoine	Yes	b	-1	8				80		-1	6			60		-1	7			70		-1	5			50				-1	6		60						
	1714602	Aliment porcelet	Yes	b	-2	1				120		-2	1			100		-2	0			80		-2	0			70				-2	0		90						
	1714603	Aliment porc	Yes	b	-1	16				150		-1	12			110		-1	11			110		-1	12			110				-1	17								
	1714604	Soja	Yes	b	-1	18				180		-1	9			90		-1	10			100		-1	14			140				-1	13								
	1726644	Chute d'escalope volaille pour animaux	No	c	-1	10				100		-1	9			90		-1	7			70		-1	11			110				-1	13								
	1729342	Aliment poules pondeuses	Yes	b	-2	81				8300		-2	70			7200		-2	90			9000		-2	101			10000				-2	108								

Ready-to-eat and ready-to-reheat products

Study	Sample code	Sample name	AC	Type	Dil.	EN ISO 16649-2(■)		REBECCA						REBECCA+EB					
						R1	R1	Surface spreading			Pour plate			Surface spreading			Pour plate		
						CFU	Result	Dil.	CFU	Result	Dil.	CFU	Result	Dil.	CFU	Result	Dil.	CFU	Result
Renewal study	1692050	Salade charcutière	Yes	a	-1	1	10	-1	0	<10	-1	0	<10	-1	0	<10	-1	1	10
					-2	0		-2	0		-2	0		-2	0		-2	0	
	1692053	Délice nordique	Yes	a	-1	11	110	-1	4	40	-1	10	120	-1	8	80	-1	5	50
					-2	1		-2	1		-2	3		-2	0		-2	0	
	1698402	Pâté grand-mère	Yes	a	-1	11	110	-1	15	160	-1	10	100	-1	10	100	-1	16	150
					-2	1		-2	3		-2	1		-2	1		-2	1	
	1692045	Quiche lorraine	No	b	-1	0	<10	-1	0	<10	-1	0	<10	-1	0	<10	-1	0	<10
					-2	0		-2	0		-2	0		-2	0		-2	0	
	1698403	Sandwich poulet	Yes	a	-1	44	450	-1	46	480	-1	48	510	-1	51	490	-1	45	480
					-2	5		-2	7		-2	8		-2	3		-2	8	
	1698404	Galette campagnarde	Yes	b	-1	99	1000	-1	92	980	-1	129	1300	-1	96	950	-1	84	880
					-2	11		-2	16		-2	13		-2	9		-2	13	
	1698405	Bouchée à la reine	Yes	b	-2	56	5500	-2	53	5200	-2	53	5100	-2	48	4900	-2	55	5500
					-3	5		-3	4		-3	3		-3	6		-3	6	
	1692052	Tomate farcie	Yes	b	-1	5	50	-1	4	40	-1	1	10	-1	1	10	-1	0	<10
					-2	1		-2	1		-2	0		-2	0		-2	0	
	1698406	Paupiette de veau	Yes	b	-2	114	12000	-2	88	9100	-2	88	8800	-2	54	5300	-2	75	7500
					-3	16		-3	12		-3	9		-3	4		-3	8	
	1698410	Eclair chocolat	Yes	a	-1	20	220	-1	15	150	-1	18	170	-1	14	140	-1	17	180
					-2	4		-2	2		-2	1		-2	1		-2	3	
	1698413	Lasagnes	Yes	b	-1	7	70	-1	17	170	-1	17	150	-1	18	170	-1	16	150
					-2	2		-2	2		-2	0		-2	1		-2	0	
	1698414	Tomate farcie	Yes	b	-1	19	190	-1	24	250	-1	24	250	-1	29	280	-1	36	350
					-2	2		-2	3		-2	3		-2	2		-2	3	
	1714588	Rillettes de lieu noir	Yes	a	-1	12	120	-1	10	100	-1	13	130	-1	10	100	-1	11	110
					-2	1		-2	1		-2	1		-2	1		-2	1	
	1714589	Coquille froide de poisson	Yes	a	-1	10	100	-1	11	110	-1	9	90	-1	8	80	-1	9	90
					-2	1		-2	1		-2	0		-2	0		-2	0	
	1714590	Saumon mariné	Yes	c	-1	11	110	-1	9	90	-1	10	100	-1	8	80	-1	12	120
					-2	1		-2	0		-2	1		-2	0		-2	1	
	1714594	Hareng fumé poivre	Yes	c	-1	15	150	-1	8	80	-1	9	90	-1	9	90	-1	10	100
					-2	1		-2	0		-2	0		-2	0		-2	1	
	1714597	Saumon fumé	Yes	c	-1	8	80	-1	6	60	-1	7	70	-1	7	70	-1	10	90
					-2	0		-2	0		-2	0		-2	0		-2	0	
	1714598	Hareng fumé	Yes	c	-1	11	100	-1	7	70	-1	9	90	-1	9	90	-1	13	130
					-2	0		-2	0		-2	0		-2	0		-2	1	
	1714600	Anchois marinés	Yes	c	-1	13	130	-1	10	90	-1	10	100	-1	10	100	-1	9	90
					-2	1		-2	0		-2	1		-2	1		-2	0	

APPENDIX E

Relative trueness study

Statistical calculations

Results summary and statistical calculations

Surface spreading for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Meat products	a	RG 3028	2,38	2,60	2,49	0,22
		VI 320	2,56	2,90	2,73	0,35
		1691982	3,43	3,53	3,48	0,10
		1691981	3,26	3,18	3,22	-0,08
		1691980	3,11	3,15	3,13	0,03
		1692012	4,94	4,81	4,88	-0,13
		1729340	1,85	1,78	1,81	-0,07
	b	VI 717	4,11	4,04	4,08	-0,07
		1698415	2,00	2,18	2,09	0,18
		1698407	4,56	4,62	4,59	0,07
		1698412	1,95	2,20	2,08	0,25
		1729339	2,26	2,11	2,18	-0,14
	c	HA 4187	2,49	2,60	2,55	0,11
		Q 2272	3,41	3,48	3,45	0,06
		VR 4755	3,95	4,08	4,02	0,12
		1692019	3,15	3,11	3,13	-0,03
		1726643	2,63	2,53	2,58	-0,10
Average difference of the category						0,05
Standard deviation of differences						0,14
Dairy & egg products	a	MV 2444	2,76	2,70	2,73	-0,06
		R 36889	6,85	6,95	6,90	0,11
		1691977	3,04	2,86	2,95	-0,18
		1692014	2,96	2,86	2,91	-0,10
		1698408	1,95	1,78	1,87	-0,18
		1698409	2,18	1,95	2,07	-0,22
	b	R 36162	4,28	4,23	4,25	-0,05
		R 36786	6,04	5,85	5,94	-0,20
		R 37297	4,61	4,79	4,70	0,17
		RD 1376	2,80	2,96	2,88	0,16
		RD 1368	3,89	3,93	3,91	0,04
		RD 1382	3,00	2,95	2,98	-0,05
		W 14564	2,60	2,36	2,48	-0,24
		R 36986	3,20	3,18	3,19	-0,03
		1691976	4,49	4,43	4,46	-0,06
		1692010	3,11	2,78	2,95	-0,34
		1692016	2,08	2,08	2,08	0,00
	c	1691975	3,45	3,45	3,45	0,00
		1698411	2,54	2,51	2,52	-0,04
		1726640	2,15	2,08	2,11	-0,07
		1726641	5,15	5,08	5,11	-0,07
		1726642	2,18	2,08	2,13	-0,10
Average difference						-0,07
Standard deviation of differences						0,13

Results summary and statistical calculations

Surface spreading for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Seafood products	a	C 85	2,89	2,70	2,80	-0,19
		CI 141	2,59	2,18	2,38	-0,41
		1714595	2,04	1,90	1,97	-0,14
		1714596	2,20	2,11	2,16	-0,09
		1729341	3,74	3,53	3,64	-0,21
	b	HA 5284	2,74	2,85	2,79	0,10
		1714591	1,95	2,00	1,98	0,05
		1714592	2,15	2,11	2,13	-0,03
		1714593	2,11	2,08	2,10	-0,03
		1714599	2,23	2,00	2,12	-0,23
	c	Q 2271	4,60	4,54	4,57	-0,06
		DJ 3253	4,18	4,18	4,18	0,00
		VR 5037	3,69	3,54	3,62	-0,15
		DJ 3789	5,99	6,11	6,05	0,12
		MV 2921	2,28	2,65	2,47	0,37
		Q 2235	2,18	2,30	2,24	0,12
Average difference						-0,05
Standard deviation of differences						0,18
Vegetal products	a	1698417	2,34	2,38	2,36	0,04
		1698418	2,04	1,95	2,00	-0,09
		1698419	2,18	2,20	2,19	0,03
		1698420	2,00	2,00	2,00	0,00
		1729345	4,96	5,08	5,02	0,12
	b	DJ 3849	1,88	1,78	1,83	-0,10
		RD 1462	3,86	3,99	3,92	0,13
		1698416	2,32	2,26	2,29	-0,07
		1726645	2,26	2,18	2,22	-0,08
		Q 2237	4,61	4,74	4,68	0,13
		1729344	3,49	3,69	3,59	0,20
	c	VR 4497	2,85	3,15	3,00	0,30
		MV 2163	1,95	1,90	1,93	-0,05
		VI 844	2,51	2,54	2,52	0,04
		RD 1460	4,59	4,53	4,56	-0,06
		RD 1461	5,71	5,61	5,66	-0,09
Average difference						0,03
Standard deviation of differences						0,12

Results summary and statistical calculations

Surface spreading for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Feed products	a	RD 1432	2,68	2,70	2,69	0,02
		RD 1433	3,11	3,00	3,05	-0,12
		RD 1434	6,41	6,40	6,41	-0,02
		RD 1435	4,08	3,89	3,98	-0,19
		RD 1436	5,11	5,08	5,10	-0,03
	b	1714601	1,90	1,78	1,84	-0,12
		1714602	2,08	2,00	2,04	-0,08
		1714603	2,18	2,04	2,11	-0,13
		1714604	2,26	1,95	2,10	-0,30
		1729342	3,92	3,86	3,89	-0,06
	c	RD 1428	2,40	2,28	2,34	-0,12
		RD 1429	3,38	2,96	3,17	-0,42
		RD 1430	4,41	4,43	4,42	0,02
		RD 1431	5,58	5,28	5,43	-0,30
		1692066	1,70	1,60	1,65	-0,10
		1726644	2,00	1,95	1,98	-0,05
Average difference						-0,13
Standard deviation of differences						0,12
Ready-to-eat & ready-to-reheat products	a	1692053	2,04	1,60	1,82	-0,44
		1698402	2,04	2,20	2,12	0,16
		1698403	2,65	2,68	2,67	0,03
		1698410	2,34	2,18	2,26	-0,17
		1714588	2,08	2,00	2,04	-0,08
		1714589	2,00	2,04	2,02	0,04
	b	1698404	3,00	2,99	3,00	-0,01
		1698405	3,74	3,72	3,73	-0,02
		1692052	1,70	1,60	1,65	-0,10
		1698406	4,08	3,96	4,02	-0,12
		1698413	1,85	2,23	2,04	0,39
		1698414	2,28	2,40	2,34	0,12
	c	1714590	2,04	1,95	2,00	-0,09
		1714594	2,18	1,90	2,04	-0,27
		1714597	1,90	1,78	1,84	-0,12
		1714598	2,00	1,85	1,92	-0,15
1714600		2,11	1,95	2,03	-0,16	
Average difference						-0,06
Standard deviation of differences						0,18

Results summary and statistical calculations

Surface spreading for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Average difference all categories						-0,04
Standard deviation of differences						0,16

n = 104

β = 95%

$T(0.025;97)=$ 1,98

Lower confidence limit	Upper confidence limit
-0,35	0,27

Data not used for the calculations

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
MP	DJ 3712	a	2,40	2,30	2,35	-0,10
	VR 4754	b	1,48	1,48	1,48	0,00
	VR 5152	b	1,78	2,00	1,89	0,22
	1692051	b	1,30	1,60	1,45	0,30
	MV 1916	c	1,40	1,48	1,44	0,08
	1692065	c	0,00	1,60	0,80	1,60
DP	1692054	a	1,30	1,70	1,50	0,40
	1692055	a	1,48	1,30	1,39	-0,18
	RD 1375	b	1,18	1,00	1,09	-0,18
	1692008	b	1,00	1,00	1,00	0,00
SP	MV 2234	c	1,54	1,48	1,51	-0,07
	1691995	a	0,00	1,00	0,50	1,00
VP	DJ 3361	c	1,40	1,78	1,59	0,38
	DJ 3510	c	1,54	1,30	1,42	-0,24
FP	1691988	b	1,48	1,48	1,48	0,00
	RD 1427	c	1,74	1,48	1,61	-0,26
RTE	1692050	a	1,00	0,00	0,50	-1,00

Results summary and statistical calculations

Pour plates for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Meat products	a	RG 3028	2,38	2,49	2,44	0,11
		DJ 3712	2,40	2,63	2,52	0,24
		1691982	3,43	3,52	3,47	0,09
		1691981	3,26	3,20	3,23	-0,05
		1691980	3,11	3,04	3,08	-0,07
		1692012	4,94	4,81	4,88	-0,13
		1729340	1,85	1,90	1,87	0,06
	b	VI 320	2,56	2,45	2,50	-0,11
		VI 717	4,11	4,04	4,08	-0,07
		VR 5152	1,78	2,18	1,98	0,40
		1698415	2,00	2,34	2,17	0,34
		1698407	4,56	4,58	4,57	0,02
		1698412	1,95	2,23	2,09	0,28
		1729339	2,26	2,18	2,22	-0,08
	c	HA 4187	2,49	2,62	2,56	0,13
		Q 2272	3,41	3,51	3,46	0,09
		VR 4755	3,95	4,20	4,08	0,25
		1692019	3,15	3,08	3,11	-0,07
		1726643	2,63	2,51	2,57	-0,13
	Average difference of the category					
Standard deviation of differences						0,17
Dairy & egg products	a	MV 2444	2,76	2,74	2,75	-0,02
		1691977	3,04	2,77	2,91	-0,27
		1692014	2,96	2,98	2,97	0,02
		1698408	1,95	1,85	1,90	-0,11
		1698409	2,18	2,08	2,13	-0,10
	b	R 36162	4,28	4,32	4,30	0,04
		R 36786	6,04	6,15	6,09	0,10
		R 36889	6,85	6,96	6,90	0,11
		R 37297	4,61	4,71	4,66	0,09
		RD 1376	2,80	2,85	2,83	0,05
		RD 1368	3,89	3,86	3,87	-0,03
		RD 1382	3,00	3,00	3,00	0,00
		W 14564	2,60	2,63	2,62	0,03
		R 36986	3,20	3,15	3,18	-0,06
		1691976	4,49	4,38	4,44	-0,11
		1692010	3,11	3,00	3,06	-0,11
		1692016	2,08	2,08	2,08	0,00
	c	1691975	3,45	3,43	3,44	-0,02
		1698411	2,54	2,53	2,54	-0,01
		1726640	2,15	2,18	2,16	0,03
1726641		5,15	5,11	5,13	-0,03	
1726642		2,18	2,43	2,30	0,26	
Average difference						-0,01
Standard deviation of differences						0,10

Results summary and statistical calculations

Pour plates for REBECCA base

Four prices for each food item						
Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Seafood products	a	C 85	2,89	2,82	2,86	-0,07
		CI 141	2,59	2,34	2,47	-0,25
		1714595	2,04	2,11	2,08	0,07
		1714596	2,20	2,23	2,22	0,03
		1729341	3,74	3,62	3,68	-0,12
	b	HA 5284	2,74	2,70	2,72	-0,04
		1714591	1,95	1,95	1,95	0,00
		1714592	2,15	2,15	2,15	0,00
		1714593	2,11	2,18	2,15	0,06
		1714599	2,23	2,11	2,17	-0,12
	c	Q 2271	4,60	4,57	4,59	-0,03
		MV 2234	1,54	1,78	1,66	0,23
		DJ 3253	4,18	4,11	4,15	-0,06
		VR 5037	3,69	3,75	3,72	0,06
		DJ 3789	5,99	6,00	6,00	0,01
		MV 2921	2,28	2,61	2,45	0,33
		Q 2235	2,18	2,45	2,31	0,27
Average difference						0,02
Standard deviation of differences						0,15
Vegetal products	a	1698417	2,34	2,40	2,37	0,06
		1698418	2,04	2,00	2,02	-0,04
		1698419	2,18	2,11	2,15	-0,06
		1698420	2,00	2,04	2,02	0,04
		1729345	4,96	5,00	4,98	0,04
	b	Q 2237	4,61	4,79	4,70	0,17
		RD 1462	3,86	3,98	3,92	0,12
		1698416	2,32	2,40	2,36	0,08
		1726645	2,26	2,18	2,22	-0,08
		1729344	3,49	3,54	3,52	0,05
	c	VR 4497	2,85	2,98	2,91	0,13
		MV 2163	1,95	1,95	1,95	0,00
		VI 844	2,51	2,66	2,58	0,16
		RD 1460	4,59	4,68	4,64	0,09
		RD 1461	5,71	5,88	5,79	0,17
Average difference						0,06
Standard deviation of differences						0,08

Results summary and statistical calculations

Pour plates for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Feed products	a	RD 1432	2,68	2,71	2,69	0,03
		RD 1433	3,11	2,98	3,05	-0,14
		RD 1434	6,41	6,15	6,28	-0,27
		RD 1435	4,08	3,91	4,00	-0,17
		RD 1436	5,11	5,11	5,11	0,00
	b	1714601	1,90	1,85	1,87	-0,06
		1714602	2,08	1,90	1,99	-0,18
		1714603	2,18	2,04	2,11	-0,13
		1714604	2,26	2,00	2,13	-0,26
		1729342	3,92	3,95	3,94	0,04
	c	RD 1427	1,74	1,60	1,67	-0,14
		RD 1428	2,40	2,43	2,41	0,03
		RD 1429	3,38	3,34	3,36	-0,04
		RD 1430	4,41	4,46	4,44	0,05
		RD 1431	5,58	5,71	5,64	0,13
		1726644	2,00	1,85	1,92	-0,15
Average difference						-0,08
Standard deviation of differences						0,12
Ready-to-eat & ready-to-reheat products	a	1692053	2,04	2,08	2,06	0,04
		1698402	2,04	2,00	2,02	-0,04
		1698403	2,65	2,71	2,68	0,05
		1698410	2,34	2,23	2,29	-0,11
		1714588	2,08	2,11	2,10	0,03
		1714589	2,00	1,95	1,98	-0,05
	b	1698404	3,00	3,11	3,06	0,11
		1698405	3,74	3,71	3,72	-0,03
		1698406	4,08	3,94	4,01	-0,13
		1698413	1,85	2,18	2,01	0,33
		1698414	2,28	2,40	2,34	0,12
	c	1714590	2,04	2,00	2,02	-0,04
		1714594	2,18	1,95	2,07	-0,22
		1714597	1,90	1,85	1,87	-0,06
		1714598	2,00	1,95	1,98	-0,05
1714600		2,11	2,00	2,06	-0,11	
Average difference						-0,01
Standard deviation of differences						0,13

Results summary and statistical calculations

Pour plates for REBECCA base

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Average difference all categories						0,01
Standard deviation of differences						0,13

n = 105

β = 95%

$T(0.025;97)=$ 1,98

Lower confidence limit	Upper confidence limit
-0,26	0,28

Data not used for the calculations

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
MP	VR 4754	a	1,48	1,78	1,63	0,30
	1692051	b	1,30	1,00	1,15	-0,30
	MV 1916	c	1,40	1,85	1,62	0,45
	1692065	c	0,00	1,00	0,50	1,00
DP	1692054	a	1,30	1,95	1,63	0,65
	1692055	a	1,48	1,85	1,66	0,37
	RD 1375	b	1,18	1,00	1,09	-0,18
	1692008	b	1,00	1,00	1,00	0,00
	1691989	b	0,00	1,00	0,50	1,00
SP	1691999	a	0,00	1,00	0,50	1,00
VP	DJ 3849	b	1,88	1,48	1,68	-0,40
	DJ 3361	c	1,40	1,70	1,55	0,30
	DJ 3510	c	1,54	1,00	1,27	-0,54
FP	1691988	b	1,48	1,48	1,48	0,00
	1692066	c	1,70	0,00	0,85	-1,70
RTE	1692052	b	1,70	1,00	1,35	-0,70
	1692050	a	1,00	0,00	0,50	-1,00

Results summary and statistical calculations

Surface spreading for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Meat products	a	1691982	3,43	3,40	3,41	-0,03
		1691981	3,26	3,36	3,31	0,11
		1691980	3,11	3,26	3,18	0,14
		1692012	4,94	4,18	4,56	-0,77
		1729340	1,85	1,90	1,87	0,06
	b	VI 320	2,56	2,70	2,63	0,14
		VI 717	4,11	4,11	4,11	0,00
		1698415	2,00	2,15	2,07	0,15
		1698407	4,56	4,32	4,44	-0,23
		1698412	1,95	2,26	2,10	0,30
		1729339	2,08	2,11	2,10	0,03
	c	HA 4187	2,49	2,78	2,63	0,29
		Q 2272	3,41	3,46	3,44	0,05
		VR 4755	3,95	3,90	3,93	-0,05
		1692019	3,15	3,20	3,18	0,06
		1726643	2,63	2,52	2,58	-0,11
Average difference of the category						0,01
Standard deviation of differences						0,25
Dairy & egg products	a	MV 2444	2,76	2,67	2,71	-0,08
		1691977	3,04	2,65	2,85	-0,39
		1692014	2,96	2,88	2,92	-0,08
		1698408	1,95	2,23	2,09	0,28
		1698409	2,18	1,90	2,04	-0,27
	b	R 36162	4,28	4,18	4,23	-0,10
		R 36786	6,04	5,70	5,87	-0,34
		R 37297	4,61	4,67	4,64	0,06
		RD 1376	2,80	2,60	2,70	-0,20
		RD 1368	3,89	3,93	3,91	0,05
		RD 1382	3,00	3,00	3,00	0,00
		W 14564	2,60	2,46	2,53	-0,14
		R 36986	3,20	2,95	3,08	-0,25
		1691976	4,49	4,61	4,55	0,12
		1692010	3,11	2,90	3,01	-0,22
		1692016	2,08	1,85	1,96	-0,23
	c	1691975	3,45	3,48	3,46	0,03
		1698411	2,54	2,40	2,47	-0,15
		1726640	2,15	2,20	2,18	0,06
		1726641	5,15	5,08	5,11	-0,07
1726642		2,18	2,28	2,23	0,10	
Average difference						-0,09
Standard deviation of differences						0,17

Results summary and statistical calculations

Surface spreading for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Seafood products	a	C 85	2,89	2,95	2,92	0,06
		CI 141	2,59	2,26	2,42	-0,34
		1714595	2,04	2,08	2,06	0,04
		1714596	2,20	2,15	2,18	-0,06
		1729341	3,74	3,61	3,68	-0,13
	b	HA 5284	2,74	2,60	2,67	-0,14
		1714591	1,95	1,95	1,95	0,00
		1714592	2,15	2,08	2,11	-0,07
		1714593	2,11	2,00	2,06	-0,11
		1714599	2,23	2,00	2,12	-0,23
	c	Q 2271	4,60	4,54	4,57	-0,06
		DJ 3253	4,18	4,11	4,15	-0,06
		VR 5037	3,69	3,64	3,67	-0,05
		DJ 3789	5,99	6,15	6,07	0,15
		MV 2921	2,28	2,63	2,46	0,35
		Q 2235	2,18	2,54	2,36	0,37
Average difference						-0,02
Standard deviation of differences						0,19
Vegetal products	a	1698417	2,34	2,40	2,37	0,06
		1698418	2,04	2,18	2,11	0,13
		1698419	2,18	1,90	2,04	-0,27
		1698420	2,00	2,36	2,18	0,36
		1729345	4,96	5,15	5,05	0,19
	b	Q 2237	4,61	4,69	4,65	0,08
		DJ 3849	1,88	1,60	1,74	-0,27
		RD 1462	3,86	3,77	3,81	-0,09
		1698416	2,32	2,40	2,36	0,08
		1726645	2,26	2,04	2,15	-0,21
		1729344	3,49	3,75	3,62	0,26
	c	VR 4497	2,85	3,08	2,96	0,23
		MV 2163	1,95	1,70	1,83	-0,26
		VI 844	2,51	2,56	2,53	0,05
		RD 1460	4,59	4,45	4,52	-0,14
		RD 1461	5,71	5,60	5,65	-0,11
Average difference						0,01
Standard deviation of differences						0,20

Results summary and statistical calculations

Surface spreading for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Feed products	a	RD 1432	2,68	2,66	2,67	-0,02
		RD 1433	3,11	3,04	3,08	-0,07
		RD 1434	6,41	6,15	6,28	-0,27
		RD 1435	4,08	4,08	4,08	0,00
		RD 1436	5,11	5,11	5,11	0,00
	b	1714601	1,90	1,70	1,80	-0,20
		1714602	2,08	1,85	1,96	-0,23
		1714603	2,18	2,04	2,11	-0,13
		1714604	2,26	2,15	2,20	-0,11
		1729342	3,92	4,00	3,96	0,08
	c	RD 1428	2,40	2,46	2,43	0,06
		RD 1429	3,38	3,04	3,21	-0,34
		RD 1430	4,41	4,26	4,34	-0,16
		RD 1431	5,58	5,30	5,44	-0,28
		1726644	2,00	2,04	2,02	0,04
Average difference						-0,11
Standard deviation of differences						0,14
Ready-to-eat & ready-to-reheat products	a	1692053	2,04	1,90	1,97	-0,14
		1698402	2,04	2,00	2,02	-0,04
		1698403	2,65	2,69	2,67	0,04
		1698410	2,34	2,15	2,24	-0,20
		1714588	2,08	2,00	2,04	-0,08
		1714589	2,00	1,90	1,95	-0,10
	b	1698404	3,00	2,98	2,99	-0,02
		1698405	3,74	3,69	3,72	-0,05
		1698406	4,08	3,72	3,90	-0,35
		1698413	1,85	2,23	2,04	0,39
		1698414	2,28	2,45	2,36	0,17
	c	1714590	2,04	1,90	1,97	-0,14
		1714594	2,18	1,95	2,07	-0,22
		1714597	1,90	1,85	1,87	-0,06
		1714598	2,00	1,95	1,98	-0,05
1714600		2,11	2,00	2,06	-0,11	
Average difference						-0,06
Standard deviation of differences						0,17

Results summary and statistical calculations

Surface spreading for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Average difference all categories						-0,04
Standard deviation of differences						0,19

n = 100

β = 95%

$T(0.025;97)=$ 1,98

Lower confidence limit	Upper confidence limit
-0,42	0,33

Data not used for the calculations

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
MP	RG 3028	a	2,38	2,30	2,34	-0,08
	VR 4754	a	1,48	1,48	1,48	0,00
	DJ 3712	a	2,40	2,30	2,35	-0,10
	VR 5152	b	1,78	2,00	1,89	0,22
	1692051	b	1,30	1,60	1,45	0,30
	MV 1916	c	1,40	1,30	1,35	-0,10
	1692065	c	0,00	1,30	0,65	1,30
DP	1692054	a	1,30	1,00	1,15	-0,30
	1692055	a	1,48	1,00	1,24	-0,48
	R 36889	b	6,85	6,30	6,57	-0,54
	RD 1375	b	1,18	1,00	1,09	-0,18
	1691989	b	0,00	1,00	0,50	1,00
	1692008	b	1,00	0,00	0,50	-1,00
SP	MV 2234	c	1,54	1,48	1,51	-0,07
	1691999	a	0,00	1,00	0,50	1,00
VP	DJ 3361	c	1,40	1,60	1,50	0,20
	DJ 3510	c	1,54	1,30	1,42	-0,24
FP	1691988	b	1,48	1,00	1,24	-0,48
	RD 1427	c	1,74	1,48	1,61	-0,26
	1692066	c	1,70	0,00	0,85	-1,70
RTE	1692052	b	1,70	1,00	1,35	-0,70
	1692050	a	1,00	0,00	0,50	-1,00

Results summary and statistical calculations

Pour plates for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Meat products	a	RG 3028	2,38	2,40	2,39	0,02
		DJ 3712	2,40	2,59	2,49	0,19
		1691982	3,43	3,28	3,36	-0,15
		1691981	3,26	3,11	3,18	-0,14
		1691980	3,11	3,18	3,15	0,06
		1692012	4,94	4,92	4,93	-0,03
		1729340	1,85	1,85	1,85	0,00
	b	VI 320	2,56	2,59	2,57	0,03
		VI 717	4,11	4,15	4,13	0,03
		VR 5152	1,78	2,11	1,95	0,34
		1698415	2,00	2,30	2,15	0,30
		1698407	4,56	4,56	4,56	0,00
		1698412	1,95	2,11	2,03	0,16
		1729339	2,08	2,18	2,13	0,10
	c	HA 4187	2,49	2,69	2,59	0,20
		Q 2272	3,41	3,34	3,38	-0,07
		VR 4755	3,95	4,15	4,05	0,19
		1692019	3,15	3,18	3,16	0,03
		1726643	2,63	2,57	2,60	-0,07
Average difference of the category						0,06
Standard deviation of differences						0,14
Dairy & egg products	a	MV 2444	2,76	2,63	2,69	-0,12
		1691977	3,04	2,81	2,92	-0,24
		1692014	2,96	2,98	2,97	0,02
		1698408	1,95	2,00	1,98	0,05
		1698409	2,18	2,11	2,15	-0,06
	b	R 36162	4,28	4,34	4,31	0,06
		R 36786	6,04	6,08	6,06	0,04
		R 36889	6,85	7,00	6,92	0,15
		R 37297	4,61	4,63	4,62	0,02
		RD 1376	2,80	2,88	2,84	0,08
		RD 1368	3,89	3,83	3,86	-0,06
		RD 1382	3,00	3,00	3,00	0,00
		W 14564	2,60	2,56	2,58	-0,05
		R 36986	3,20	3,11	3,16	-0,09
		1691976	4,49	4,41	4,45	-0,08
		1692010	3,11	3,00	3,06	-0,11
		1692016	2,08	2,11	2,10	0,03
	c	1691975	3,45	3,30	3,37	-0,15
		1698411	2,54	2,40	2,47	-0,15
		1726640	2,15	2,04	2,09	-0,10
		1726641	5,15	5,08	5,11	-0,07
		1726642	2,18	2,20	2,19	0,03
Average difference						-0,04
Standard deviation of differences						0,09

Results summary and statistical calculations

Pour plates for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Seafood products	a	C 85	2,89	2,81	2,85	-0,08
		CI 141	2,59	2,32	2,46	-0,27
		1714595	2,04	1,95	2,00	-0,09
		1714596	2,20	2,23	2,22	0,03
		1729341	3,74	3,81	3,77	0,07
	b	HA 5284	2,74	2,70	2,72	-0,04
		1714591	1,95	1,90	1,93	-0,05
		1714592	2,15	2,08	2,11	-0,07
		1714593	2,11	2,15	2,13	0,03
		1714599	2,23	2,08	2,15	-0,15
	c	Q 2271	4,60	4,59	4,60	-0,01
		DJ 3253	4,18	4,11	4,15	-0,06
		VR 5037	3,69	3,65	3,67	-0,04
		DJ 3789	5,99	6,11	6,05	0,12
		MV 2921	2,28	2,54	2,41	0,27
		Q 2235	2,18	2,57	2,37	0,39
Average difference						0,00
Standard deviation of differences						0,16
Vegetal products	a	1698417	2,34	2,34	2,34	0,00
		1698418	2,04	1,78	1,91	-0,26
		1698419	2,18	1,90	2,04	-0,27
		1698420	2,00	2,26	2,13	0,26
		1729345	4,96	5,11	5,04	0,15
	b	Q 2237	4,61	4,66	4,64	0,05
		DJ 3849	1,88	1,78	1,83	-0,10
		RD 1462	3,86	3,79	3,82	-0,07
		1698416	2,32	2,32	2,32	0,00
		1726645	2,26	2,18	2,22	-0,08
		1729344	3,49	3,56	3,52	0,06
	c	VR 4497	2,85	2,91	2,88	0,07
		MV 2163	1,95	1,78	1,87	-0,18
		VI 844	2,51	2,68	2,59	0,18
		RD 1460	4,59	4,59	4,59	0,00
		RD 1461	5,71	5,86	5,78	0,15
Average difference						0,00
Standard deviation of differences						0,15

Results summary and statistical calculations

Pour plates for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Feed products	a	RD 1432	2,68	2,67	2,68	-0,01
		RD 1433	3,11	3,15	3,13	0,03
		RD 1434	6,41	6,54	6,48	0,13
		RD 1435	4,08	3,96	4,02	-0,12
		RD 1436	5,11	5,18	5,15	0,06
	b	1714601	1,90	1,78	1,84	-0,12
		1714602	2,08	1,95	2,02	-0,12
		1714603	2,18	2,23	2,20	0,05
		1714604	2,26	2,11	2,18	-0,14
		1729342	3,92	4,04	3,98	0,12
	c	RD 1427	1,74	1,85	1,79	0,10
		RD 1428	2,40	2,76	2,58	0,36
		RD 1429	3,38	3,23	3,31	-0,15
		RD 1430	4,41	4,38	4,40	-0,03
		RD 1431	5,58	5,67	5,63	0,09
		1726644	2,00	2,18	2,09	0,18
Average difference						0,03
Standard deviation of differences						0,14
Ready-to-eat & ready-to-reheat products	a	1692053	2,04	1,70	1,87	-0,34
		1698402	2,04	2,18	2,11	0,13
		1698403	2,65	2,68	2,67	0,03
		1698410	2,34	2,26	2,30	-0,09
		1714588	2,08	2,04	2,06	-0,04
		1714589	2,00	1,95	1,98	-0,05
	b	1698404	3,00	2,94	2,97	-0,06
		1698405	3,74	3,74	3,74	0,00
		1698406	4,08	3,88	3,98	-0,20
		1698413	1,85	2,18	2,01	0,33
		1698414	2,28	2,54	2,41	0,27
	c	1714590	2,04	2,08	2,06	0,04
		1714594	2,18	2,00	2,09	-0,18
		1714597	1,90	1,95	1,93	0,05
		1714598	2,00	2,11	2,06	0,11
		1714600	2,11	1,95	2,03	-0,16
Average difference						-0,01
Standard deviation of differences						0,17

Results summary and statistical calculations

Pour plates for REBECCA+EB

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
Average difference all categories						0,01
Standard deviation of differences						0,14

n = 105

β = 95%

T (0.025;97)= 1,98

Lower confidence limit	Upper confidence limit
-0,28	0,29

Data not used for the calculations

Category	Type	Sample code	Reference method	Alternative method	Mean	Difference
MP	VR 4754	a	1,48	1,30	1,39	-0,18
	1692051	b	1,30	1,30	1,30	0,00
	MV 1916	c	1,40	1,70	1,55	0,30
DP	1692054	a	1,30	1,48	1,39	0,18
	1692055	a	1,48	1,30	1,39	-0,18
	RD 1375	b	1,18	1,00	1,09	-0,18
	1692008	b	1,00	1,00	1,00	0,00
	1691989	b	0,00	1,30	0,65	1,30
SP	MV 2234	c	1,54	1,48	1,51	-0,07
VP	DJ 3361	c	1,40	1,48	1,44	0,08
	DJ 3510	c	1,54	1,00	1,27	-0,54
FP	1691988	b	1,48	0,00	0,74	-1,48
	1692066	c	1,70	0,00	0,85	-1,70
RTE	1692050	a	1,00	1,00	1,00	0,00
	1692052	b	1,70	0,00	0,85	-1,70

APPENDIX F

Accuracy profile study

Raw results

Key:

 Estimated number

ACCURACY PROFILE - Meat products

Matrix: Ground beef

Strain: *Escherichia coli*, EZN508

Enumeration of the microorganisms at 30°C - batch 1:

1100 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

340 000 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	23	-2	3	240	-1	20	-2	2	200	-1	12	-2	1	120	-1	10	-2	3	100	-1	8	-2	0	80
		R2	-1	17	-2	2	170	-1	15	-2	0	150	-1	16	-2	3	170	-1	19	-2	1	180	-1	12	-2	0	120
		R3	-1	10	-2	1	100	-1	10	-2	1	100	-1	11	-2	0	100	-1	14	-2	3	150	-1	8	-2	1	80
		R4	-1	11	-2	1	110	-1	16	-2	2	160	-1	12	-2	3	140	-1	15	-2	0	150	-1	6	-2	0	60
		R5	-1	13	-2	1	130	-1	16	-2	1	160	-1	10	-2	1	100	-1	9	-2	0	90	-1	11	-2	0	110
	Batch 2	R1	-1	13	-2	1	130	-1	14	-2	0	130	-1	11	-2	2	120	-1	10	-2	0	100	-1	7	-2	0	70
		R2	-1	16	-2	2	160	-1	13	-2	0	120	-1	9	-2	1	90	-1	14	-2	2	140	-1	6	-2	1	60
		R3	-1	22	-2	2	220	-1	20	-2	1	190	-1	14	-2	0	130	-1	15	-2	2	150	-1	12	-2	1	120
		R4	-1	17	-2	2	170	-1	22	-2	1	210	-1	17	-2	2	170	-1	16	-2	1	150	-1	10	-2	1	100
		R5	-1	19	-2	1	190	-1	12	-2	1	120	-1	6	-2	0	60	-1	13	-2	1	130	-1	13	-2	0	130
Level 2	Batch 1	R1	-2	37	-3	5	3800	-2	25	-3	2	2500	-2	32	-3	3	3200	-2	28	-3	4	2900	-2	18	-3	3	1900
		R2	-2	49	-3	2	4600	-2	32	-3	2	3100	-2	24	-3	7	2800	-2	27	-3	2	2600	-2	21	-3	3	2200
		R3	-2	30	-3	2	2900	-2	35	-3	7	3800	-2	32	-3	8	3600	-2	27	-3	4	2800	-2	26	-3	4	2800
		R4	-2	37	-3	6	3900	-2	25	-3	3	2500	-2	30	-3	3	3000	-2	22	-3	4	2400	-2	27	-3	2	2600
		R5	-2	29	-3	2	2900	-2	30	-3	3	3000	-2	34	-3	3	3400	-2	22	-3	3	2300	-2	32	-3	9	4000
	Batch 2	R1	-2	26	-3	4	2700	-2	28	-3	3	2800	-2	26	-3	3	2600	-2	32	-3	1	3000	-2	19	-3	1	2100
		R2	-2	22	-3	1	2100	-2	33	-3	8	3700	-2	23	-3	4	2400	-2	21	-3	3	2200	-2	25	-3	3	2700
		R3	-2	31	-3	1	2900	-2	22	-3	3	2300	-2	25	-3	5	2700	-2	26	-3	2	2500	-2	24	-3	5	2600
		R4	-2	30	-3	3	3000	-2	24	-3	6	2700	-2	21	-3	4	2300	-2	30	-3	2	2900	-2	35	-3	2	3400
		R5	-2	31	-3	5	3300	-2	25	-3	7	3800	-2	30	-3	6	3300	-2	28	-3	4	2900	-2	34	-3	2	3300
Level 3	Batch 1	R1	-4	34	-5	2	330000	-4	27	-5	5	290000	-4	35	-5	10	410000	-4	33	-5	7	360000	-4	23	-5	10	300000
		R2	-4	32	-5	5	340000	-4	27	-5	6	300000	-4	30	-5	4	310000	-4	32	-5	5	340000	-4	22	-5	4	240000
		R3	-4	29	-5	4	300000	-4	29	-5	2	280000	-4	37	-5	8	410000	-4	32	-5	8	360000	-4	21	-5	6	240000
		R4	-4	29	-5	5	310000	-4	29	-5	6	320000	-4	50	-5	6	510000	-4	35	-5	3	340000	-4	35	-5	7	380000
		R5	-4	19	-5	4	210000	-4	19	-5	1	180000	-4	30	-5	2	290000	-4	22	-5	1	210000	-4	14	-5	3	150000
	Batch 2	R1	-4	32	-5	5	340000	-4	24	-5	2	240000	-4	24	-5	8	290000	-4	22	-5	1	210000	-4	25	-5	4	260000
		R2	-4	23	-5	3	240000	-4	23	-5	1	220000	-4	25	-5	3	250000	-4	25	-5	2	240000	-4	25	-5	3	250000
		R3	-4	25	-5	4	260000	-4	29	-5	2	280000	-4	33	-5	3	330000	-4	22	-5	1	210000	-4	24	-5	4	250000
		R4	-4	30	-5	2	290000	-4	26	-5	3	260000	-4	39	-5	10	440000	-4	23	-5	2	230000	-4	22	-5	6	250000
		R5	-4	32	-5	4	330000	-4	21	-5	1	200000	-4	27	-5	2	260000	-4	19	-5	6	230000	-4	24	-5	5	260000

ACCURACY PROFILE - Dairy and egg products

Matrix: Raw milk cheese

Strain: *Escherichia coli*, TDW583

Enumeration of the microorganisms at 30°C - batch 1:

<10 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

<10 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	13	-2	1	130	-1	16	-2	4	180	-1	14	-2	1	140	-1	7	-2	0	70	-1	12	-2	2	130
		R2	-1	13	-2	1	130	-1	13	-2	1	130	-1	10	-2	1	100	-1	13	-2	1	130	-1	10	-2	1	100
		R3	-1	8	-2	1	80	-1	12	-2	1	120	-1	15	-2	1	150	-1	13	-2	1	130	-1	16	-2	1	160
		R4	-1	15	-2	1	150	-1	12	-2	1	120	-1	12	-2	2	130	-1	8	-2	2	80	-1	5	-2	1	50
		R5	-1	10	-2	1	100	-1	11	-2	1	110	-1	15	-2	2	150	-1	11	-2	1	110	-1	9	-2	0	90
	Batch 2	R1	-1	14	-2	2	150	-1	12	-2	2	130	-1	11	-2	2	120	-1	17	-2	1	160	-1	10	-2	2	110
		R2	-1	6	-2	1	60	-1	10	-2	1	100	-1	8	-2	3	100	-1	10	-2	1	100	-1	8	-2	2	80
		R3	-1	15	-2	1	150	-1	10	-2	1	100	-1	12	-2	1	120	-1	16	-2	2	160	-1	17	-2	1	160
		R4	-1	17	-2	2	170	-1	9	-2	1	90	-1	9	-2	3	110	-1	16	-2	1	160	-1	10	-2	0	90
		R5	-1	12	-2	1	120	-1	16	-2	2	160	-1	12	-2	1	120	-1	16	-2	2	140	-1	17	-2	0	150
Level 2	Batch 1	R1	-2	45	-3	5	4500	-2	50	-3	5	5000	-2	35	-3	6	3700	-2	39	-3	6	4100	-2	27	-3	5	2900
		R2	-2	38	-3	9	4300	-2	38	-3	2	3600	-2	28	-3	1	2600	-2	30	-3	1	2800	-2	32	-3	2	3100
		R3	-2	42	-3	5	4300	-2	36	-3	4	3600	-2	36	-3	3	3600	-2	41	-3	5	4200	-2	42	-3	5	4300
		R4	-2	42	-3	6	4400	-2	37	-3	5	3800	-2	42	-3	3	4100	-2	36	-3	4	3600	-2	38	-3	4	3800
		R5	-2	36	-3	4	3600	-2	37	-3	4	3700	-2	33	-3	7	3600	-2	38	-3	2	3600	-2	26	-3	3	2600
	Batch 2	R1	-2	36	-3	3	3600	-2	43	-3	4	4300	-2	36	-3	10	4200	-2	36	-3	5	3700	-2	40	-3	3	3900
		R2	-2	40	-3	3	3900	-2	39	-3	4	3900	-2	27	-3	5	2900	-2	35	-3	3	3500	-2	32	-3	0	2900
		R3	-2	42	-3	4	4200	-2	38	-3	2	3600	-2	38	-3	8	4200	-2	49	-3	4	4800	-2	37	-3	6	3900
		R4	-2	35	-3	1	3300	-2	33	-3	1	3100	-2	39	-3	4	3900	-2	49	-3	4	4800	-2	34	-3	4	3500
		R5	-2	46	-3	1	4300	-2	38	-3	4	3800	-2	39	-3	11	4600	-2	47	-3	5	4700	-2	36	-3	3	3600
Level 3	Batch 1	R1	-3	100	-4	9	99000	-3	105	-4	21	120000	-3	138	-4	12	140000	-3	94	-4	12	96000	-3	82	-4	9	83000
		R2	-3	97	-4	20	110000	-3	119	-4	15	120000	-4	19	-5	1	180000	-3	118	-4	8	120000	-3	77	-4	7	76000
		R3	-3	141	-4	19	150000	-3	110	-4	15	110000	-3	134	-4	16	140000	-3	115	-4	17	120000	-3	62	-4	7	63000
		R4	-3	119	-4	14	120000	-3	106	-4	13	99000	-3	136	-4	7	130000	-3	132	-4	16	140000	-3	38	-4	5	39000
		R5	-3	114	-4	9	110000	-3	116	-4	22	130000	-3	145	-4	15	150000	-3	121	-4	13	120000	-3	59	-4	12	65000
	Batch 2	R1	-3	147	-4	16	150000	-3	113	-4	22	120000	-3	145	-4	18	150000	-3	128	-4	8	120000	-3	59	-4	7	60000
		R2	-3	127	-4	19	130000	-3	103	-4	12	110000	-3	116	-4	21	130000	-3	111	-4	11	110000	-3	65	-4	7	66000
		R3	-3	118	-4	16	120000	-3	119	-4	15	120000	-3	109	-4	8	110000	-3	119	-4	14	120000	-3	72	-4	5	70000
		R4	-3	101	-4	17	110000	-3	109	-4	15	110000	-3	115	-4	10	110000	-3	134	-4	14	140000	-3	83	-4	11	86000
		R5	-3	121	-4	18	130000	-3	112	-4	16	120000	-3	97	-4	11	98000	-3	99	-4	13	100000	-3	77	-4	14	83000

ACCURACY PROFILE - Seafood products

Matrix: Raw fish fillet

Strain: *Escherichia coli*, AZD018

Enumeration of the microorganisms at 30°C - batch 1:

30 000 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

1 800 000 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	28	-2	4	290	-1	10	-2	1	100	-1	17	-2	0	150	-1	14	-2	0	130	-1	17	-2	0	150
		R2	-1	32	-2	1	300	-1	16	-2	1	160	-1	14	-2	0	130	-1	16	-2	2	160	-1	19	-2	1	190
		R3	-1	24	-2	3	240	-1	15	-2	0	140	-1	11	-2	0	100	-1	18	-2	1	170	-1	16	-2	1	160
		R4	-1	24	-2	0	220	-1	17	-2	2	170	-1	11	-2	0	100	-1	10	-2	1	100	-1	15	-2	1	150
		R5	-1	23	-2	4	240	-1	19	-2	1	190	-1	18	-2	1	180	-1	18	-2	2	180	-1	10	-2	2	110
	Batch 2	R1	-1	27	-2	2	260	-1	11	-2	0	100	-1	18	-2	0	160	-1	10	-2	1	100	-1	16	-2	1	160
		R2	-1	26	-2	0	240	-1	16	-2	0	160	-1	19	-2	0	170	-1	12	-2	1	100	-1	15	-2	1	150
		R3	-1	29	-2	4	300	-1	16	-2	0	160	-1	11	-2	1	110	-1	19	-2	1	190	-1	16	-2	1	160
		R4	-1	17	-2	0	150	-1	17	-2	1	170	-1	16	-2	1	160	-1	17	-2	0	150	-1	15	-2	1	150
		R5	-1	29	-2	2	280	-1	16	-2	2	160	-1	16	-2	2	160	-1	18	-2	0	160	-1	16	-2	1	160
Level 2	Batch 1	R1	-2	44	-3	4	4400	-2	35	-3	6	3700	-2	44	-3	5	4500	-2	47	-3	5	4700	-2	34	-3	4	3400
		R2	-2	40	-3	5	4100	-2	30	-3	5	3200	-2	48	-3	1	4500	-2	30	-3	4	3100	-2	30	-3	1	2800
		R3	-2	38	-3	8	4200	-2	24	-3	2	2400	-2	39	-3	6	4100	-2	31	-3	5	3300	-2	35	-3	5	3600
		R4	-2	30	-3	2	2900	-2	35	-3	2	3400	-2	27	-3	1	2600	-2	32	-3	1	3000	-2	24	-3	2	2400
		R5	-2	40	-3	2	3800	-2	25	-3	3	2500	-2	30	-3	1	2800	-2	26	-3	1	2500	-2	32	-3	2	3100
	Batch 2	R1	-2	38	-3	5	3900	-2	31	-3	5	3300	-2	41	-3	5	4200	-2	29	-3	3	2900	-2	30	-3	2	2900
		R2	-2	31	-3	4	3200	-2	33	-3	6	3600	-2	28	-3	2	2700	-2	40	-3	3	3900	-2	36	-3	5	3700
		R3	-2	38	-3	1	3600	-2	18	-3	4	2000	-2	27	-3	2	2600	-2	42	-3	3	4100	-2	27	-3	5	2900
		R4	-2	44	-3	5	4400	-2	25	-3	2	2500	-2	28	-3	4	2900	-2	34	-3	3	3400	-2	20	-3	2	2000
		R5	-2	34	-3	4	3500	-2	23	-3	3	2400	-2	28	-3	4	2900	-2	26	-3	6	2900	-2	34	-3	2	3300
Level 3	Batch 1	R1	-3	89	-4	9	89000	-3	82	-4	11	85000	-3	60	-4	13	66000	-3	65	-4	13	71000	-3	70	-4	6	69000
		R2	-3	67	-4	1	62000	-3	84	-4	9	84000	-3	50	-4	6	51000	-3	58	-4	4	56000	-3	51	-4	4	50000
		R3	-3	84	-4	12	87000	-3	58	-4	8	60000	-3	70	-4	12	75000	-3	54	-4	6	55000	-3	63	-4	3	60000
		R4	-3	86	-4	7	85000	-3	75	-4	6	74000	-3	59	-4	11	64000	-3	52	-4	10	56000	-3	73	-4	6	72000
		R5	-3	80	-4	9	81000	-3	73	-4	7	73000	-3	74	-4	10	76000	-3	58	-4	6	58000	-3	71	-4	6	70000
	Batch 2	R1	-3	92	-4	7	90000	-3	84	-4	13	88000	-3	66	-4	12	71000	-3	67	-4	6	66000	-3	59	-4	4	57000
		R2	-3	77	-4	7	76000	-3	67	-4	10	70000	-3	53	-4	4	54000	-3	47	-4	1	44000	-3	67	-4	4	65000
		R3	-3	77	-4	8	77000	-3	65	-4	11	69000	-3	54	-4	8	56000	-3	50	-4	11	55000	-3	61	-4	6	61000
		R4	-3	80	-4	3	75000	-3	64	-4	5	63000	-3	58	-4	8	60000	-3	58	-4	7	59000	-3	65	-4	3	62000
		R5	-3	76	-4	8	76000	-3	67	-4	8	68000	-3	61	-4	11	65000	-3	60	-4	5	59000	-3	53	-4	12	59000

ACCURACY PROFILE - Vegetal products

Matrix: Frozen vegetables pan

Strain: *Escherichia coli*, BCF262

Enumeration of the microorganisms at 30°C - batch 1:

3100 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

2000 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	9	-2	0	90	-1	7	-2	1	70	-1	7	-2	1	70	-1	7	-2	0	70	-1	7	-2	0	70
		R2	-1	10	-2	1	90	-1	4	-2	0	40	-1	4	-2	1	40	-1	6	-2	1	60	-1	6	-2	0	60
		R3	-1	8	-2	0	80	-1	4	-2	0	40	-1	6	-2	2	60	-1	5	-2	1	50	-1	7	-2	1	70
		R4	-1	7	-2	0	70	-1	6	-2	1	60	-1	9	-2	2	90	-1	7	-2	1	70	-1	10	-2	1	100
		R5	-1	7	-2	1	70	-1	4	-2	1	40	-1	9	-2	0	90	-1	7	-2	3	70	-1	10	-2	1	100
	Batch 2	R1	-1	11	-2	0	100	-1	4	-2	1	40	-1	4	-2	1	40	-1	10	-2	1	100	-1	7	-2	0	70
		R2	-1	6	-2	1	60	-1	10	-2	2	110	-1	4	-2	0	40	-1	6	-2	2	60	-1	10	-2	2	110
		R3	-1	4	-2	0	40	-1	5	-2	2	50	-1	6	-2	1	60	-1	18	-2	1	170	-1	10	-2	0	90
		R4	-1	4	-2	0	40	-1	12	-2	1	120	-1	5	-2	2	50	-1	4	-2	2	40	-1	12	-2	0	110
		R5	-1	10	-2	0	90	-1	11	-2	2	120	-1	5	-2	0	50	-1	4	-2	0	40	-1	13	-2	0	120
Level 2	Batch 1	R1	-2	31	-3	3	3100	-2	31	-3	5	3300	-2	20	-3	2	2000	-2	30	-3	6	3300	-2	24	-3	0	2200
		R2	-2	26	-3	2	2600	-2	29	-3	2	2800	-2	23	-3	3	2300	-2	24	-3	3	2400	-2	24	-3	4	2600
		R3	-2	23	-3	0	2100	-2	32	-3	0	2900	-2	24	-3	4	2400	-2	18	-3	4	2000	-2	26	-3	1	2500
		R4	-2	22	-3	2	2200	-2	34	-3	3	3400	-2	21	-3	4	2300	-2	32	-3	2	3100	-2	26	-3	3	2600
		R5	-2	26	-3	2	2600	-2	30	-3	3	3000	-2	23	-3	4	2500	-2	22	-3	1	2100	-2	32	-3	1	3000
	Batch 2	R1	-2	35	-3	2	3400	-2	26	-3	6	2900	-2	27	-3	3	2700	-2	25	-3	2	2500	-2	29	-3	1	2700
		R2	-2	22	-3	1	2100	-2	22	-3	3	2200	-2	22	-3	5	2500	-2	19	-3	4	2100	-2	23	-3	3	2300
		R3	-2	27	-3	3	2700	-2	21	-3	4	2300	-2	31	-3	8	3600	-2	22	-3	2	2200	-2	31	-3	2	3000
		R4	-2	20	-3	2	2000	-2	23	-3	3	2300	-2	27	-3	2	2600	-2	21	-3	4	2300	-2	23	-3	3	2400
		R5	-2	26	-3	3	2600	-2	25	-3	2	2500	-2	20	-3	5	2300	-2	23	-3	2	2300	-2	29	-3	2	2800
Level 3	Batch 1	R1	-3	87	-4	5	84000	-3	70	-4	6	69000	-3	55	-4	11	60000	-3	48	-4	9	52000	-3	39	-4	5	40000
		R2	-3	74	-4	11	77000	-3	66	-4	7	66000	-3	47	-4	5	47000	-3	46	-4	8	49000	-3	40	-4	8	44000
		R3	-3	71	-4	13	76000	-3	72	-4	9	74000	-3	52	-4	7	54000	-3	65	-4	11	69000	-3	45	-4	3	44000
		R4	-3	66	-4	9	68000	-3	57	-4	6	57000	-3	57	-4	9	60000	-3	51	-4	3	49000	-3	54	-4	4	53000
		R5	-3	73	-4	7	73000	-3	70	-4	6	69000	-3	51	-4	10	56000	-3	51	-4	10	56000	-3	55	-4	3	53000
	Batch 2	R1	-3	70	-4	10	73000	-3	52	-4	11	57000	-3	48	-4	13	56000	-3	55	-4	8	57000	-3	53	-4	3	51000
		R2	-3	59	-4	10	63000	-3	56	-4	11	61000	-3	52	-4	12	58000	-3	53	-4	9	56000	-3	52	-4	1	48000
		R3	-3	86	-4	7	85000	-3	67	-4	8	68000	-3	64	-4	15	72000	-3	56	-4	14	64000	-3	63	-4	5	62000
		R4	-3	77	-4	4	74000	-3	53	-4	13	60000	-3	54	-4	10	58000	-3	56	-4	12	62000	-3	56	-4	3	54000
		R5	-3	85	-4	8	85000	-3	64	-4	12	69000	-3	50	-4	9	54000	-3	60	-4	6	60000	-3	48	-4	3	46000

ACCURACY PROFILE - Feed products

Matrix: Cat kibbles

Strain: *Escherichia coli*, EAR487

Enumeration of the microorganisms at 30°C - batch 1:

<10 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

<10 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	13	-2	1	130	-1	11	-2	2	120	-1	19	-2	2	190	-1	13	-2	2	130	-1	14	-2	3	160
		R2	-1	16	-2	2	160	-1	12	-2	2	130	-1	10	-2	1	100	-1	13	-2	5	160	-1	17	-2	1	160
		R3	-1	10	-2	0	90	-1	9	-2	1	90	-1	10	-2	3	120	-1	11	-2	6	160	-1	13	-2	0	120
		R4	-1	9	-2	3	110	-1	11	-2	4	140	-1	11	-2	3	130	-1	10	-2	1	100	-1	13	-2	0	120
		R5	-1	10	-2	1	100	-1	12	-2	2	130	-1	8	-2	2	80	-1	11	-2	1	110	-1	10	-2	2	110
	Batch 2	R1	-1	7	-2	1	70	-1	12	-2	2	130	-1	12	-2	1	120	-1	17	-2	1	160	-1	10	-2	1	100
		R2	-1	17	-2	1	160	-1	7	-2	1	70	-1	17	-2	1	160	-1	13	-2	2	130	-1	10	-2	1	100
		R3	-1	12	-2	1	120	-1	10	-2	1	100	-1	22	-2	0	200	-1	6	-2	0	60	-1	13	-2	2	130
		R4	-1	9	-2	1	90	-1	10	-2	2	110	-1	12	-2	0	110	-1	13	-2	1	130	-1	11	-2	4	140
		R5	-1	11	-2	2	120	-1	12	-2	1	120	-1	15	-2	0	140	-1	16	-2	1	160	-1	7	-2	2	70
Level 2	Batch 1	R1	-2	26	-3	6	2900	-2	30	-3	2	2900	-2	26	-3	5	2800	-2	29	-3	1	2700	-2	43	-3	4	4300
		R2	-2	36	-3	5	3700	-2	34	-3	6	3600	-2	42	-3	6	4400	-2	21	-3	2	2100	-2	29	-3	3	2900
		R3	-2	36	-3	6	3800	-2	33	-3	5	3500	-2	39	-3	8	4300	-2	28	-3	5	3000	-2	36	-3	1	3400
		R4	-2	30	-3	4	3100	-2	32	-3	1	3000	-2	25	-3	1	2400	-2	28	-3	5	3000	-2	45	-3	2	4300
		R5	-2	24	-3	5	2600	-2	31	-3	3	3100	-2	28	-3	4	2900	-2	22	-3	0	2000	-2	40	-3	3	3900
	Batch 2	R1	-2	42	-3	4	4200	-2	35	-3	3	3500	-2	30	-3	3	3000	-2	43	-3	4	4300	-2	22	-3	1	2100
		R2	-2	36	-3	5	3700	-2	32	-3	4	3300	-2	39	-3	8	4300	-2	24	-3	7	2800	-2	36	-3	3	3600
		R3	-2	30	-3	4	3100	-2	36	-3	3	3600	-2	27	-3	6	3000	-2	32	-3	4	3300	-2	27	-3	5	2900
		R4	-2	33	-3	3	3300	-2	28	-3	3	2800	-2	42	-3	7	4500	-2	33	-3	2	3200	-2	40	-3	2	3800
		R5	-2	38	-3	5	3900	-2	37	-3	6	3900	-2	38	-3	7	4100	-2	41	-3	2	3900	-2	32	-3	2	3100
Level 3	Batch 1	R1	-3	100	-4	11	100000	-3	77	-4	12	81000	-3	107	-4	15	110000	-3	75	-4	19	86000	-3	88	-4	12	91000
		R2	-3	93	-4	10	94000	-3	88	-4	12	91000	-3	101	-4	11	100000	-3	78	-4	10	80000	-3	103	-4	6	99000
		R3	-3	78	-4	13	83000	-3	63	-4	17	73000	-3	92	-4	13	96000	-3	82	-4	8	82000	-3	91	-4	7	89000
		R4	-3	80	-4	18	89000	-3	74	-4	13	79000	-3	111	-4	8	110000	-3	83	-4	9	83000	-3	84	-4	5	81000
		R5	-3	86	-4	9	86000	-3	72	-4	13	77000	-3	105	-4	12	110000	-3	80	-4	15	86000	-3	64	-4	5	63000
	Batch 2	R1	-3	107	-4	8	110000	-3	65	-4	11	69000	-3	113	-4	16	120000	-3	66	-4	15	74000	-3	108	-4	3	100000
		R2	-3	76	-4	12	80000	-3	82	-4	17	90000	-3	97	-4	11	98000	-3	87	-4	8	86000	-3	97	-4	5	93000
		R3	-3	67	-4	17	76000	-3	96	-4	8	95000	-3	95	-4	11	96000	-3	88	-4	9	88000	-3	150	-4	11	150000
		R4	-3	76	-4	12	80000	-3	78	-4	25	94000	-3	110	-4	9	110000	-3	79	-4	10	81000	-3	90	-4	13	94000
		R5	-3	100	-4	10	100000	-3	65	-4	6	65000	-3	90	-4	9	90000	-3	83	-4	9	83000	-3	80	-4	14	86000

ACCURACY PROFILE - Ready-to-eat and ready-to-reheat products

Matrix: Quiche lorraine

Strain: *Escherichia coli*, UBS981

Enumeration of the microorganisms at 30°C - batch 1:

<10 CFU/g

Enumeration of the microorganisms at 30°C - batch 2:

<10 CFU/g

Level	Batch	R.	ISO 16649-2 (■)					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading					REBECCA BASE - Pour plates					REBECCA BASE - Surface spreading				
			Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)	Dil. 1	CFU	Dil. 2	CFU	Result (CFU/g)
Level 1	Batch 1	R1	-1	9	-2	0	90	-1	10	-2	0	100	-1	10	-2	1	100	-1	12	-2	2	130	-1	9	-2	1	90
		R2	-1	19	-2	1	180	-1	12	-2	2	120	-1	7	-2	1	70	-1	10	-2	1	100	-1	7	-2	1	70
		R3	-1	11	-2	0	100	-1	8	-2	0	80	-1	11	-2	1	110	-1	9	-2	1	90	-1	5	-2	2	50
		R4	-1	8	-2	2	80	-1	6	-2	0	60	-1	7	-2	3	70	-1	6	-2	1	60	-1	8	-2	0	80
		R5	-1	6	-2	0	60	-1	10	-2	1	100	-1	7	-2	2	70	-1	10	-2	0	100	-1	5	-2	2	50
	Batch 2	R1	-1	8	-2	0	80	-1	10	-2	1	100	-1	10	-2	2	110	-1	12	-2	1	120	-1	14	-2	2	150
		R2	-1	9	-2	0	90	-1	12	-2	1	120	-1	10	-2	1	100	-1	6	-2	0	60	-1	9	-2	0	90
		R3	-1	14	-2	1	140	-1	13	-2	2	140	-1	10	-2	3	120	-1	6	-2	0	60	-1	7	-2	1	70
		R4	-1	8	-2	1	80	-1	10	-2	1	100	-1	11	-2	3	130	-1	6	-2	0	60	-1	7	-2	2	70
		R5	-1	6	-2	1	60	-1	10	-2	2	110	-1	12	-2	2	130	-1	12	-2	0	110	-1	6	-2	2	60
Level 2	Batch 1	R1	-2	30	-3	0	2700	-2	24	-3	2	2400	-2	21	-3	5	2400	-2	28	-3	4	2900	-2	28	-3	4	2900
		R2	-2	22	-3	1	2100	-2	18	-3	3	1900	-2	24	-3	1	2300	-2	23	-3	2	2300	-2	25	-3	3	2500
		R3	-2	32	-3	3	3200	-2	23	-3	4	2500	-2	33	-3	1	3100	-2	24	-3	4	2500	-2	18	-3	2	1800
		R4	-2	24	-3	2	2400	-2	23	-3	2	2300	-2	22	-3	4	2400	-2	22	-3	3	2300	-2	26	-3	1	2500
		R5	-2	26	-3	1	2500	-2	27	-3	2	2600	-2	35	-3	2	3400	-2	31	-3	3	3100	-2	16	-3	2	1600
	Batch 2	R1	-2	30	-3	1	2800	-2	17	-3	1	1600	-2	25	-3	5	2700	-2	16	-3	4	1800	-2	21	-3	1	2000
		R2	-2	31	-3	1	2900	-2	28	-3	3	2800	-2	20	-3	1	1900	-2	28	-3	0	2500	-2	17	-3	3	1800
		R3	-2	30	-3	4	3100	-2	23	-3	4	2500	-2	22	-3	3	2300	-2	23	-3	4	2500	-2	23	-3	4	2500
		R4	-2	25	-3	0	2300	-2	29	-3	2	2800	-2	29	-3	5	3100	-2	26	-3	1	2500	-2	23	-3	0	2100
		R5	-2	26	-3	2	2600	-2	29	-3	1	2700	-2	23	-3	3	2400	-2	24	-3	2	2400	-2	19	-3	3	2000
Level 3	Batch 1	R1	-3	79	-4	12	83000	-3	61	-4	12	66000	-3	67	-4	14	74000	-3	72	-4	10	75000	-3	52	-4	7	54000
		R2	-3	60	-4	4	58000	-3	62	-4	11	66000	-3	79	-4	12	83000	-3	61	-4	9	64000	-3	50	-4	10	55000
		R3	-3	63	-4	10	66000	-3	61	-4	9	64000	-3	65	-4	16	74000	-3	54	-4	11	59000	-3	57	-4	2	54000
		R4	-3	85	-4	7	84000	-3	65	-4	9	67000	-3	87	-4	10	88000	-3	61	-4	10	65000	-3	49	-4	2	46000
		R5	-3	81	-4	12	85000	-3	64	-4	4	62000	-3	81	-4	9	82000	-3	72	-4	8	73000	-3	46	-4	1	43000
	Batch 2	R1	-3	90	-4	10	90000	-3	70	-4	3	66000	-3	66	-4	7	66000	-3	68	-4	8	69000	-3	53	-4	1	49000
		R2	-3	76	-4	15	83000	-3	62	-4	8	64000	-3	72	-4	16	80000	-3	80	-4	16	87000	-3	52	-4	5	52000
		R3	-3	62	-4	11	66000	-3	77	-4	6	76000	-3	79	-4	7	78000	-3	72	-4	5	70000	-3	60	-4	12	66000
		R4	-3	69	-4	11	73000	-3	87	-4	10	88000	-3	66	-4	15	74000	-3	63	-4	3	60000	-3	48	-4	6	49000
		R5	-3	76	-4	9	77000	-3	73	-4	6	72000	-3	66	-4	17	76000	-3	64	-4	7	65000	-3	57	-4	2	54000

APPENDIX G

Inclusivity raw results

#	Code	Souche	Origine	REBECCA (colonies bleues)		NF ISO 16649-2	
				Réplicat 1	Réplicat 2	Réplicat 1	Réplicat 2
1	I2	<i>Escherichia coli</i>	Carottes râpées	120	120	41	58
2	I23	<i>Escherichia coli</i>	Industrie laitière	50	47	36	34
3	R3	<i>Escherichia coli</i>	CIP 54.127	47	54	41	37
4	R74	<i>Escherichia coli</i>	ATCC 8739	50	44	47	31
5	I38	<i>Escherichia coli</i>	Camembert	27	24	23	18
6	I39	<i>Escherichia coli</i>	Ravioli au poulet	40	34	8	16
7	I41	<i>Escherichia coli</i>	Granulés de bœuf 20% MG	42	40	58	50
8	I42	<i>Escherichia coli</i>	Granulés de bœuf 30% MG	29	29	23	16
9	I46	<i>Escherichia coli</i>	Viande hachée 15% MG	110	98	63	73
10	I47	<i>Escherichia coli</i>	Poulet mariné	39	38	34	25
11	I48	<i>Escherichia coli</i>	Fromage	40	42	31	28
12	I49	<i>Escherichia coli</i>	Boîte de contact	37	25	19	23
13	I50	<i>Escherichia coli</i>	Ecouvillon	23	16	18	18
14	I51	<i>Escherichia coli</i>	Salade	33	39	7	4
15	I52	<i>Escherichia coli</i>	Bœuf muscle 80/20	63	29	6	3
16	I53	<i>Escherichia coli</i>	Viande bœuf hachée	34	47	19	23
17	I54	<i>Escherichia coli</i>	Raviolis au poulet	55	52	19	30
18	I55	<i>Escherichia coli</i>	Rillettes de saumon cuit et fumé	96	96	71	73
19	I56	<i>Escherichia coli</i>	Raviolis aux crevettes et persil	92	83	66	68
20	I57	<i>Escherichia coli</i>	Préparation de viande pour kebab	38	41	35	28
21	I58	<i>Escherichia coli</i>	Granulé de bœuf 20% MG	54	59	33	13
22	I59	<i>Escherichia coli</i>	Bœuf muscle 80/20	90	84	47	37
23	I60	<i>Escherichia coli</i>	Mélange bœuf/porc	30	47	16	18
24	I63	<i>Escherichia coli</i>	Porc haché	17	28	27	24
25	I64	<i>Escherichia coli</i>	Raviolis aux noix de St-Jacques	45	59	40	57
26	I65	<i>Escherichia coli</i>	Sauce cresson	43	42	34	37
27	I66	<i>Escherichia coli</i>	Salade pate/tomate/brocolis/surimi/mayo	33	37	25	37
28	I67	<i>Escherichia coli</i>	Croissants farcis	42	41	10	10
29	I68	<i>Escherichia coli</i>	Raviolis radis blanc roquette ricotta	44	49	27	25
30	I69	<i>Escherichia coli</i>	Camembert	56	37	39	35
31	I70	<i>Escherichia coli</i>	Viennoiserie aux fruits	130	149	121	145
32	I71	<i>Escherichia coli</i>	Noix de Saint-Jacques	55	51	43	47
33	I72	<i>Escherichia coli</i>	Crevettes crues	65	77	68	58
34	I73	<i>Escherichia coli</i>	Merguez	78	87	89	95
35	I74	<i>Escherichia coli</i>	Salade orange/pamplemousse	37	31	29	28
36	I75	<i>Escherichia coli</i>	Laguiole au lait cru	54	66	73	57
37	I76	<i>Escherichia coli</i>	Cantal jeune au lait cru	35	51	27	35
38	I77	<i>Escherichia coli</i>	Déchets de pâte recyclés	16	24	29	13
39	I78	<i>Escherichia coli</i>	Pâte blanche sur table d'enfarinage	16	13	14	17
40	I79	<i>Escherichia coli</i>	Crevette crue décortiquée	13	16	4	4
41	I80	<i>Escherichia coli</i>	Pâte blanche sortie premier laminage	22	30	32	35
42	I81	<i>Escherichia coli</i>	Pâte blanche sortie mélange	36	22	21	27
43	I88	<i>Escherichia coli</i>	Tartare de bar	9	22	12	9
44	I89	<i>Escherichia coli</i>	Merguez de veau	55	63	47	56
45	I90	<i>Escherichia coli</i>	Kebab dinde poulet veau	28	35	17	26
46	I91	<i>Escherichia coli</i>	Raviolis aux crevettes	72	58	44	54
47	I92	<i>Escherichia coli</i>	Farce	28	30	19	17
48	I93	<i>Escherichia coli</i>	Roquefort	64	60	17	27
49	I94	<i>Escherichia coli</i>	Salade riz tomates	50	48	51	53
50	I95	<i>Escherichia coli</i>	Salade tomates mozzarella	38	33	37	38

APPENDIX G

Exclusivity raw results

Validation initiale							
#	Code	Souche	Origine	Nombre d'UFC/boîte			
				REBECCA (colonies)		NF ISO 16649-2	
				Réplikat 1	Réplikat 2	Réplikat 1	Réplikat 2
1	I36	<i>Aeromonas aerophila</i>	saumon fumé	0	0	0	0
2	I28	<i>Bacillus cereus</i>	industrie laitière	0	0	0	0
3	R40	<i>Citrobacter freundii</i>	ATCC 8090	0	0	0	0
4	R2	<i>Citrobacter koseri</i>	CIP 72.11	0	0	0	0
5	I25	<i>Enterobacter aerogenes</i>	Industrie laitière	0	0	0	0
6	R8	<i>Enterobacter aerogenes</i>	CIP 60.86 T	0	0	0	0
7	R67	<i>Enterobacter cloacae</i>	CIP 60 85	0	0	0	0
8	I37	<i>Enterobacter sakazakii</i>	Poudre de lait	0	0	0	0
9	R119	<i>Escherichia vulneris</i>	CIP 103177	0	0	0	0
10	R82	<i>Escherichia hermanii</i>	CIP 103176	0	0	0	0
11	I3	<i>Hafnia alvei</i>	Taboulé	0	0	0	0
12	I17	<i>Klebsiella oxytoca</i>	Salade soja	0	0	0	0
13	I6	<i>Klebsiella pneumoniae</i>	Pâtisserie	0	0	0	0
14	I16	<i>Pseudomonas aeruginosa</i>	omelette gruyère	0	0	0	0
15	R95	<i>Proteus mirabilis</i>	CIP 103181	0	0	0	0
16	S65	<i>Salmonella Javiana</i>	Champignons séchés	0	0	0	0
17	P39	<i>Salmonella Typhimurium</i>	Gorge de porc	0	0	0	0
18	R117	<i>Serratia ficaria</i>	CIP 79.23	0	0	0	0
19	R80	<i>Shigella sonnei</i>	ATCC 9290	15	18	16	15
20	R73	<i>Staphylococcus aureus</i>	ATCC 6538	0	0	0	0
21	R120	<i>Escherichia coli</i> O:157.H7	CIP 105917	0	0	0	0
22	ESC1.29	<i>Escherichia coli</i> O:157.H7	Université allemande	0	0	0	0

Reconduction 2019									
#	Code	Souche	Origine	TSA (taux réel en UFC/boîte))	Nombre d'UFC/boîte				
					TBX	REBECCA masse	REBECCA surface	REBECCA+EB masse	REBECCA+EB surface
23	SAE286	<i>Acinetobacter baumannii</i>	Poudre de lait infantile	630	<10	<10 ^a	<10	<10	<10 ^b
24	EFG554	<i>Corynebacterium callunae</i>	Pizza calzone	850	<10	<10	<10	<10	<10
25	FBM018	<i>Corynebacterium flavescent</i>	Morbier AOP	550	<10	<10	<10	<10	<10
26	ABB472	<i>Aeromonas sp</i>	Poisson	610	<10	<10	<10	<10	<10
27	AAZ671	<i>Pseudomonas fragi</i>	Chutes d'escalope de dinde	510	<10	<10	<10	<10	<10
28	BDK055	<i>Pseudomonas fluorescens</i>	Produit carné	600	<10	<10	<10	<10	<10
29	DAR118	<i>Rhodococcus erythropolis</i>	Cubes de concombre avec peau	610	<10	<10	<10	<10	<10
30	YFJ492	<i>Carnobacterium divergens</i>	Steak de saumon	560	<10	<10	<10	<10	<10

a: présence de colonies blanches

b: présence de colonies roses

APPENDIX H

Interlaboratory study

Raw results

TOTAL VIABLE COUNT OF THE PASTEURIZED MILK

Results per collaborator in CFU/ml

Collaborator	Result
A	<10
B	<10
C	<10
D	1900
F	2500
G	140
H	380
I	6500
J	430
Expert	1100

Résultats bruts - *Escherichia coli*

Niveau 0

NOMBRE DE COLONIES CARACTERISTIQUES COMPTEES

Laboratoires	Méthode de référence (NF ISO 16649-2)													
	Echantillon 2							Echantillon 8						
	-1		-2		-3		Résultats (UFC/mL)	-1		-2		-3		Résultats (UFC/mL)
	Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2		Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2	
A	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
B	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
C	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
D	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
F	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
G	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
H	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
I	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
J	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
Laboratoire expert	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10

Laboratoires	Méthode alternative (REBECCA + supplément EB - colonies bleu-violet)													
	Echantillon 2							Echantillon 8						
	-1		-2		-3		Résultats (UFC/mL)	-1		-2		-3		Résultats (UFC/mL)
	Boîte 1	Boîte 1	Boîte 1	Boîte 1	Boîte 1	Boîte 1		Boîte 1	Boîte 1	Boîte 1	Boîte 1	Boîte 1	Boîte 1	
A	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
B	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
C	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
D	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
F	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
G	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
H	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
I	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
J	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10
Laboratoire expert	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<10

Résultats bruts - *Escherichia coli*

Niveau 1

NOMBRE DE COLONIES CARACTERISTIQUES COMPTEES

Contamination initiale: 24 *Escherichia coli* par mL

Laboratoires	Méthode de référence (NF ISO 16649-2)													
	Echantillon 4							Echantillon 7						
	-1		-2		-3		Résultats (UFC/mL)	-1		-2		-3		Résultats (UFC/mL)
	Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2		Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2	
A	2 ^a	1	1	<1	<1	<1	15	3	1	<1	1	<1	<1	20
B	2	3	<1	2	<1	<1	25	5	6	<1	<1	<1	<1	55
C	2	6	1	<1	<1	<1	40	6	3	<1	1	<1	<1	45
D	5	3	2	<1	<1	<1	40	3	4	<1	<1	<1	<1	35
F	6	2	1	<1	<1	<1	40	3	3	1	<1	<1	<1	30
G	3	5	1	<1	<1	<1	40	3	2	1	<1	1	<1	25
H	7	4	1	<1	<1	<1	55	5	8	<1	<1	<1	<1	65
I	6	3	<1	1	<1	<1	65	8	7	1	<1	<1	<1	75
J	1	6	<1	1	<1	<1	35	3	2	<1	<1	<1	<1	25
Laboratoire expert	1	4	<1	1	<1	<1	25	6	6	<1	<1	<1	<1	60

Laboratoires	Méthode alternative (REBECCA + supplément EB - colonies bleu-violet)									
	Echantillon 4					Echantillon 7				
	-1		-2		Résultats (UFC/mL)	-1		-2		Résultats (UFC/mL)
	Boîte 1	Boîte 1	Boîte 1	Boîte 1		Boîte 1	Boîte 1	Boîte 1	Boîte 1	
A	2 ^a	1	<1	<1	20	7	1	<1	<1	70
B	1	<1	<1	<1	10	1	<1	<1	<1	10
C	3	1	<1	<1	30	5	<1	<1	<1	50
D	5	<1	<1	<1	50	4	<1	<1	<1	40
F	4	<1	<1	<1	40	5	<1	<1	<1	50
G	4	<1	<1	<1	40	4	<1	<1	<1	40
H	10	1	<1	<1	100	3	<1	<1	<1	30
I	4	<1	<1	<1	40	4	<1	<1	<1	40
J	1	<1	<1	<1	10	4	<1	<1	<1	40
Laboratoire expert	2	1	<1	<1	20	4	<1	<1	<1	40

a= nombres estimés

Résultats bruts - *Escherichia coli*

Niveau 2

NOMBRE DE COLONIES CARACTERISTIQUES COMPTEES

Contamination initiale: 390 *Escherichia coli* par mL

Laboratoires	Méthode de référence (NF ISO 16649-2)													
	Echantillon 5							Echantillon 6						
	-1		-2		-3		Résultats (UFC/mL)	-1		-2		-3		Résultats (UFC/mL)
	Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2		Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2	
A	30	38	3	3	1	<1	340	47	20	4	<1	<1	<1	320
B	42	41	5	3	<1	<1	410	44	43	2	3	<1	<1	420
C	44	45	4	7	3	<1	450	39	38	7	2	<1	<1	390
D	35	35	2	6	<1	<1	350	33	46	1	1	<1	<1	370
F	38	43	9	3	2	<1	420	38	36	4	3	1	<1	370
G	53	43	2	3	<1	<1	460	43	43	4	4	<1	<1	430
H	37	44	6	6	<1	<1	420	40	29	8	4	1	<1	370
I	42	34	4	6	<1	<1	390	37	46	4	6	<1	<1	420
J	40	51	3	4	<1	<1	450	38	32	4	3	<1	<1	350
Laboratoire expert	35	43	3	<1	<1	<1	370	33	33	6	5	<1	<1	350

Laboratoires	Méthode alternative (REBECCA + supplément EB - colonies bleu-violet)							
	Echantillon 5				Echantillon 6			
	-1	-2	-3	Résultats (UFC/mL)	-1	-2	-3	Résultats (UFC/mL)
	Boîte 1	Boîte 1	Boîte 1		Boîte 1	Boîte 1	Boîte 1	
A	42	6	1	440	36	5	<1	370
B	40	2	<1	380	31	2	<1	300
C	31	7	<1	350	30	1	<1	280
D	46	4	1	450	44	3	1	430
F	45	4	<1	450	30	2	<1	290
G	30	3	<1	300	36	4	<1	360
H	35	2	<1	340	42	4	1	420
I	30	4	<1	310	33	11	1	400
J	38	3	<1	370	41	3	<1	400
Laboratoire expert	43	3	<1	420	42	3	<1	410

Résultats bruts - *Escherichia coli*

Niveau 3

NOMBRE DE COLONIES CARACTERISTIQUES COMPTEES

Contamination initiale: 4900 *Escherichia coli* par mL

Laboratoires	Méthode de référence (NF ISO 16649-2)													
	Echantillon 1							Echantillon 3						
	-1		-2		-3		Résultats (UFC/mL)	-1		-2		-3		Résultats (UFC/mL)
	Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2		Boîte 1	Boîte 2	Boîte 1	Boîte 2	Boîte 1	Boîte 2	
A	>150	>150	50	45	6	4	4800	>150	>150	46	42	8	3	4500
B	>150	>150	36	39	4	5	3800	>150	>150	39	35	3	4	3700
C	>150	>150	43	44	1	3	4100	>150	>150	45	39	5	5	4300
D	>150	>150	40	48	6	6	4500	>150	>150	48	50	6	3	4900
F	>150	>150	34	43	6	5	4000	>150	>150	46	58	7	7	5400
G	>150	>150	48	51	3	7	5000	>150	>150	51	55	2	4	5100
H	>150	>150	60	54	5	7	5700	>150	>150	47	44	3	4	4500
I	>150	>150	40	52	5	3	4500	>150	>150	43	46	5	4	4500
J	>150	>150	44	53	5	7	5000	>150	>150	29	39	3	4	3400
Laboratoire expert	>150	>150	16	27	3	1	2100	>150	>150	34	40	7	4	3900

Laboratoires	Méthode alternative (REBECCA + supplément EB - colonies bleu-violet)							
	Echantillon 1				Echantillon 3			
	-1	-2	-3	Résultats (UFC/mL)	-1	-2	-3	Résultats (UFC/mL)
	Boîte 1	Boîte 1	Boîte 1		Boîte 1	Boîte 1	Boîte 1	
A	>150	30	2	2900	>150	50	6	5100
B	>150	37	8	4100	>150	39	1	3600
C	>150	33	1	3100	>150	47	2	4500
D	>150	43	3	4200	>150	47	3	4500
F	>150	47	5	4700	>150	37	6	3900
G	>150	49	4	4800	>150	36	5	3700
H	>150	50	2	4700	>150	47	3	4500
I	>150	44	5	4500	>150	47	3	4500
J	>150	42	2	4000	>150	36	3	3500
Laboratoire expert	>150	36	5	3700	>150	32	3	3200