

NF VALIDATION

Validation of alternative analytical methods

Application in food microbiology

Summary report

Validation study according to the ISO 16140-2

CompactDry™ YMR

(Certificate number: SDC 42/05-03/25)

**for the enumeration of yeasts and moulds in a broad range of food
with a water activity higher than 0.95**

Quantitative method

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This report consists of 71 pages, including 13 appendices.

Only copies including the totality of this report are authorised.

Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol♦.

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Quality Assurance documents related to this study can be consulted upon request from **Shimadzu Diagnostics Corporation**.

Measurement uncertainty on the reference method results is not taken into account to provide the conclusion in this report; this measurement uncertainty is however available.

The technical protocol and the result interpretation were carried out according to the ISO 16140-2 (2016), ISO 16140-2/A1 (2024) and the AFNOR technical rules (Revision 12).

Validation protocols	- ISO 16140-1 (2016): Microbiology of the food chain - Method validation — <i>Part 1: Vocabulary</i> - ISO 16140-2 (2016) & ISO 16140-2/A1 (2024): Microbiology of the food chain - Method validation — <i>Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method</i> - AFNOR technical rules (Revision 12)
Reference method*	ISO 21527-1:2008 - Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds - Part 1: colony count technique in products with water activity greater than 0.95
Alternative method	CompactDry™ YMR (yeasts and moulds)
Scope	Broad range of foods with a water activity higher than 0.95
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

1 INTRODUCTION

The **CompactDry™ YMR** was validated in February 2025 (certificate number: SDC 42/05-03/25) **for enumeration of total yeasts and moulds in a broad range of foods with a water activity higher than 0.95.**

2 METHODS DESCRIPTION

2.1 Alternative method

2.1.1 Principle

CompactDry™ plates are ready-to-use dry media sheets comprising culture medium and a cold-soluble gelling agent, rehydrated by inoculating 1 ml diluted sample into the centre of the self-diffusible medium.

The CompactDry™ YMR method contains chromogenic medium and selective agents for the detection and enumeration of yeasts and moulds. Yeasts grow as blue colonies and moulds form cottony colonies with characteristic colours after 72 ± 3 hours at $25 \pm 1^\circ\text{C}$.

2.1.2 Protocol

The flow diagram of the alternative method is provided in **Appendix 1**.

2.1.3 Restrictions

There is no restriction.

2.2 Reference method♦

The reference method is the following: ISO 21527-1 (2008) - Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds. Part 1: colony count technique in products with water activity greater than 0.95. The flow diagram of the reference method is given in **Appendix 2**.

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

3 METHOD COMPARISON STUDY

The method comparison study is a study performed by the expert laboratory to compare the alternative method with the reference method.

The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.

For any comment on the alternative method, please contact AFNOR Certification at <http://nf-validation.afnor.org/contact-2/>.

The protocol applied during the validation study is described in **Appendix 3**.

3.1 Protocols applied during the validation

The minimum incubation time was applied during the validation study: 69 h at 25 ± 1°C. BPW was used as diluent.

3.2 Relative trueness study

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.

3.2.1 Number and nature of the samples

Five food categories were tested. The repartition per tested category and type is provided in Table 1.

Table 1 – Categories and types

Category		Type		Number of samples analysed	Number of interpretable results
1	Dairy products	a	Cheeses	9	7
		b	Yogurts with fruits	10	7
		c	Fermented milk-based products	7	6
		Total		26	20
2	Multicomponent foods	a	Composite foods with substantial raw ingredients	10	6
		b	Mayonnaise based chilled salads	9	8
		c	Ambient stable acidified foods	11	5
		Total		30	19
3	Fruits and vegetables	a	Fresh fruit salad and fruit purees	8	7
		b	Chilled fruit juices	5	5
		c	Fermented vegetables and heat processed vegetables	8	8
		Total		21	20
4	Bakery products	a	Pastries	12	7
		b	Egg products without additives	11	7
		c	Bakery egg-based products	12	8
		Total		35	22
5	Ready- to-eat, ready-to-reheat foods	a	RTE meat	5	5
		b	RTE poultry	9	5
		c	Cooked and cured fish products	7	5
		Total		21	15
ALL CATEGORIES				133	96

133 samples were analysed, leading to 96 exploitable results.

3.2.2 Artificial and natural contamination of the samples

Artificial contaminations were realized by seeding 48h at $3 \pm 2^{\circ}\text{C}$ prior to enrichment. The inoculated strains, the contamination protocols are provided in **Appendix 4**.

199 samples were screened with the CompactDry™ YMR method, on these samples 93 samples were potentially contaminated and tested again with reference and alternative methods. 67 samples gave interpretable results.

69.1 % of the samples giving interpretable results by both methods were naturally contaminated.

40 samples were artificially contaminated; 29 gave interpretable results.

3.2.3 Raw data

The raw data are provided in **Appendix 5**.

The samples were analysed by the reference and the alternative methods in order to have 15 interpretable results per incubation protocol, and 5 interpretable results per tested type.

The data are classified in three categories (See Table 2):

- Interpretable results with the reference and the alternative methods.
- Results with less than 4 colonies per plate with the reference and/or the alternative method (indicated with “*” in the data) in order to have a more precise result. These results are not included in the calculation.
- Results below or above the quantification limit: according to the ISO 16140-2:2016, if any result (either reference or alternative method) is below the quantification limit, the data should be plotted using a substituted value of 1 log₁₀ units less than the observed value in case of a lower than value. Similarly, any value greater than the upper limit should be amended by adding 1 log unit. These results are not included in the calculations but also appear on the graphs.

Table 2 - Classification of the data

Category		Type		Number of tested samples	Number of samples with interpretable results by both methods	Number of samples with presence of the contaminant but less than 4 colonies/plate	Number of samples below or above the quantification limit
1	Dairy products	a	Cheeses	9	7	0	2
		b	Yogurts with fruits	10	7	0	3
		c	Fermented milk-based products	7	6	0	1
		Total		26	20	0	6
2	Multicomponent foods	a	Composite foods with substantial raw ingredients	10	6	0	4
		b	Mayonnaise based chilled salads	9	8	0	1
		c	Ambient stable acidified foods	11	5	1	5
		Total		30	19	1	10
3	Fruits and vegetables	a	Fresh fruit salad and fruit purees	8	7	0	1
		b	Chilled fruit juices	5	5	0	0
		c	Fermented vegetables and heat processed vegetables	8	8	0	0
		Total		21	20	0	1
4	Bakery products	a	Pastries	12	7	0	5
		b	Egg products without additives	11	7	0	4
		c	Bakery egg-based products	12	8	1	3
		Total		35	22	1	12
5	Ready- to -eat, ready- to -reheat foods	a	RTE meat	5	5	0	0
		b	RTE poultry	9	5	1	3
		c	Cooked and cured fish products	7	5	0	2
		Total		21	15	1	5
ALL CATEGORIES				133	96	3	34

The samples, which were not used in the calculations, are provided in Table 3.

Table 3 - Samples which were not used in the calculations

Sample N°	Product	Reference method (log CFU/g)	Alternative method (log CFU/g)	Category	Type
3058	Goat milk cheese	>7.18	8.04	1	a
3444	Grated cheese	<4.00	<4.00	1	a
4065	Yogurts with fruits (pineapple)	5.15	>4.48	1	b
4066	Yogurts with fruits (apricot)	>5.18	>4.48	1	b
4067	Yogurts with fruits (nectarine)	>5.18	>4.48	1	b
4064	Fermented milk	>4.18	>3.48	1	c
3307	Pasta salad with surimi	>3.18	4.40	2	a
4058	Sandwich with ham and cheese	<3.00	3.00*	2	a
4061	Pasta salad with surimi and chive	>7.18	>7.48	2	a
5330	Chocolate mousse	2.60	<2.00	2	a
3554	Vegetable salad with mayonnaise	<2.00	<2.00	2	b
3547	Mustard	<1.00	<1.00	2	c
3548	Ketchup	<1.00	<1.00	2	c
3550	Dressing	<2.00	2.00*	2	c
4055	Dressing with olive oil	3.78	3.30*	2	c
5334	Ketchup	<2.00	<2.00	2	c
5336	Tartar sauce	<2.00	<2.00	2	c
3304	Slices fruits (mango, passion and apple)	<1.00	<1.00	3	a
3052	Pastry with strawberries	>7.18	>8.48	4	a
3053	Pastry with fruits	>7.18	>8.48	4	a
3055	Pastry with strawberries	>7.18	>8.48	4	a
3056	Pastry with strawberries and apricot	>7.18	>8.48	4	a
3311	Pastry with chocolate	>3.18	>4.48	4	a
4053	Whole liquid egg	2.18	<1.00	4	b
4823	Pasteurised liquid egg yolk	<1.00	2.20	4	b
4824	Pasteurised whole liquid egg	<1.00	2	4	b
4825	Pasteurised liquid egg white	>2.48	2.94	4	b
3066	Vegetable tart with tuna	>7.18	>8.48	4	c
3068	Leeks tart	>7.18	7.34	4	c
3069	Leeks tart	>7.18	7.40	4	c
4045	Raw dough	2.26	1.00*	4	c
4068	Sliced RTE poultry meat	>7.18	7.36	5	b
4463	Sliced RTE poultry meat	<1.00	<1.00	5	b
4464	Sliced RTE smoked poultry meat	1.90	<1.00	5	b
4830	Sliced RTE poultry meat	1.00*	2.08	5	b
3070	Cooked salmon food	>7.18	>8.48	5	c
3305	Fish rillettes	<1.00	<1.00	5	c

* Less than 4 colonies on the plate

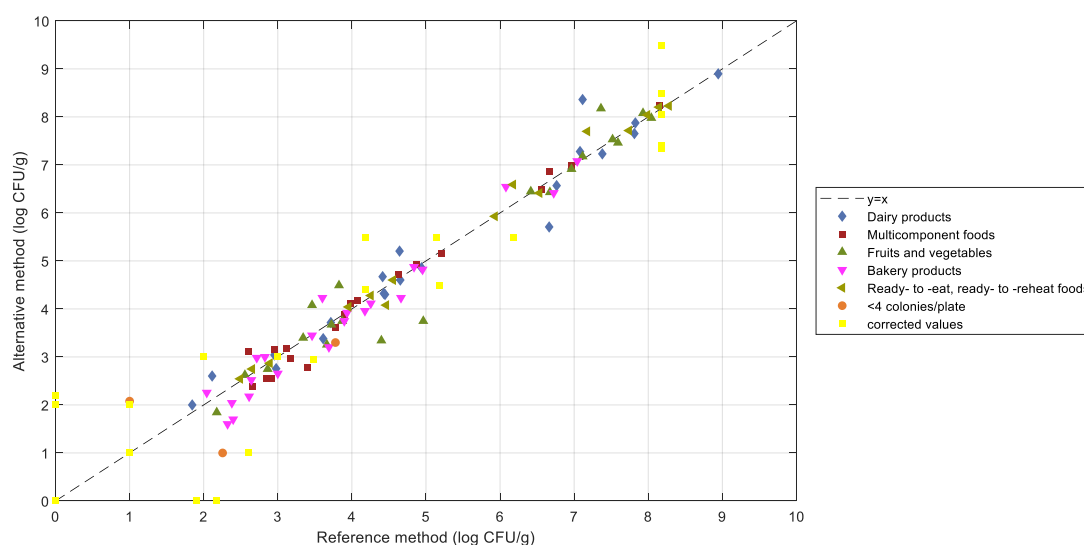
3.2.4 Statistical interpretation

The calculations are provided in **Appendix 6**.

The obtained data were analysed using the scatter plot. The graphs are provided with the line of identity ($y = x$).

The data plotted for each individual category are given in **Appendix 7** and for all the products Figure 1.

Figure 1 - Data plotted for all the products



The calculated values for Average difference and Standard deviation differences per category are provided in table 4.

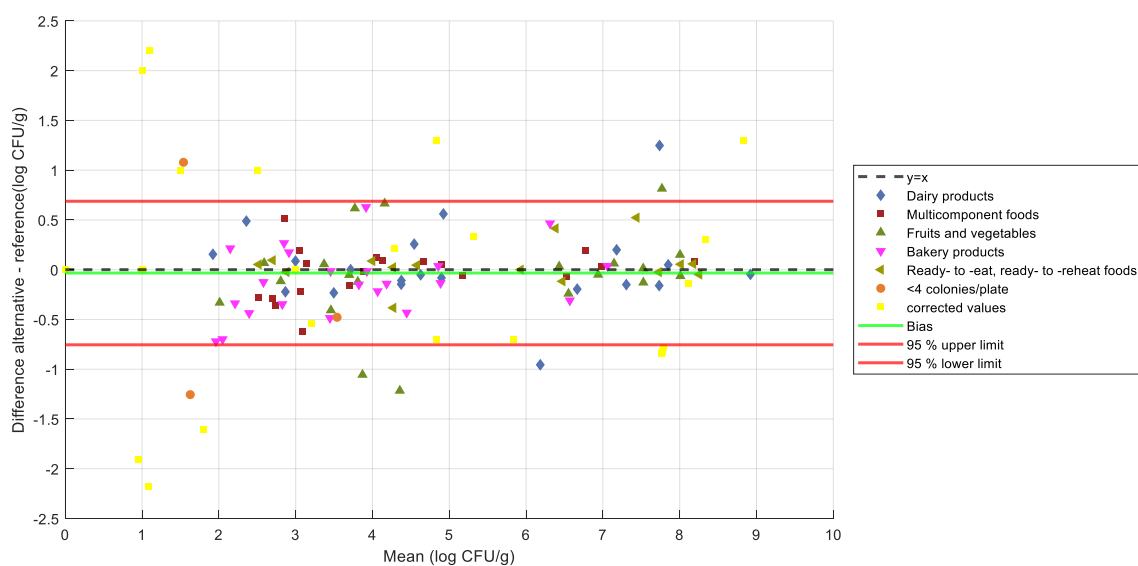
Table 4 - Calculated values

	Category	n	$\bar{D}$ (Linear bias)	SD	95% lower limit	95% upper limit
1	Dairy products	20	0.03	0.42	-0.87	0.94
2	Multicomponent foods	19	-0.03	0.25	-0.57	0.51
3	Fruits and vegetables	20	-0.07	0.48	-1.10	0.97
4	Bakery products	22	-0.12	0.34	-0.86	0.61
5	Ready-to-eat, ready-to-reheat foods	15	0.05	0.21	-0.41	0.51
	All categories	96	-0.03	0.36	-0.75	0.69

$\bar{D}$: Average difference

SD: Standard deviation of differences

The Bland-Altman difference plots for each category are given in **Appendix 8** and for all the samples are given Figure 2.

Figure 2 – Bland-Altman difference plot for all the samples

The average differences vary from -0.12 log CFU/g to 0.05 log CFU/g with a general bias for all categories at -0.03.

Samples for which the difference between the result observed with the reference and the alternative methods is above or lower than the limits are listed in Table 5.

Table 5 - Analysis of the data out of the confidence limits

Values in green: differences in favour of the alternative method
Values in red: differences in favour of the reference method

- Corrected value
- Results calculated using enumeration lower than 4 CFU/plate
- UCL

Upper confidence limit
- LCL

Lower confidence limit
- Bold**

Artificially contaminated samples
- Y**

Presence of yeast
- M**

Presence of mold

Category	
1	Dairy products
2	Multicomponent foods
3	Fruits and vegetables
4	Bakery products
5	Ready- to -eat, ready- to -reheat foods

Classification of the data	Category	Type	N° Sample	Product	Reference method	Alternative method	Values before correction (Reference or/and alternative method)	Mean	Difference	LCL / UCL	Contamination	
											ISO 21527-1	Alternative method
Interpretable results by both methods	1	a	3057	Pasteurised cheese	6.66	5.71	/	6.19	-0.96	-0.75 / 0.69	Y and M	Y and M
	1	a	3061	Saint Nectaire cheese	7.11	8.36	/	7.74	1.25		Y and M	Y and M
	3	a	3302	Sliced cantaloupe	7.36	8.18	/	7.77	0.81		Y	Y
	3	a	4054	Apple purée with vanilla	4.40	3.34	/	3.87	-1.06		Y and M	Y and M
	3	c	3064	Fermented vegetables (beetroot)	4.96	3.75	/	4.36	-1.22		Y	Y
<4 CFU/plate	4	c	4045	Raw dough	2.26	1.00	/	1.63	-1.26		M	M
	5	b	4830	Sliced RTE poultry meat	1.00	2.08	/	1.54	1.08		Y	Y
< or > the quantification limit	2	a	4058	Sandwich with ham and cheese	2.00	3.00	3.00	2.50	1.00		/	Y
	2	a	5330	Chocolate mousse	2.60	1.00	2.00	1.80	-1.60		M	/
	2	c	3550	Dressing	1.00	2.00	2.00	1.50	1.00		No colony	Y
	4	a	3052	Pastry with strawberries	8.18	9.48	7.18 / 8.48	8.83	1.30		Y	Y
	4	a	3053	Pastry with fruits	8.18	9.48	7.18 / 8.48	8.83	1.30		Y	Y
	4	a	3055	Pastry with strawberries	8.18	9.48	7.18 / 8.48	8.83	1.30		Y and M	Y
	4	a	3056	Pastry with strawberries and apricot	8.18	9.48	7.18 / 8.48	8.83	1.30		Y	Y
	4	a	3311	Pastry with chocolate	4.18	5.48	3.18 / 4.48	4.83	1.30		Y	Y
	4	b	4053	Whole liquid egg	2.18	0.00	1.00	1.09	-2.18		Y and M	/
	4	b	4823	Pasteurised liquid egg yolk	0.00	2.20	1.00	1.10	2.20		/	Y
	4	b	4824	Pasteurised whole liquid egg	0.00	2.00	1.00	1.00	2.00		/	Y
	4	c	3066	Vegetable tart with tuna	8.18	9.48	7.18 / 8.48	8.83	1.30		Y	Y
	4	c	3068	Leeks tart	8.18	7.34	7.18	7.76	-0.84		Y	Y and M
	4	c	3069	Leeks tart	8.18	7.40	7.18	7.79	-0.78		Y and M	Y and M
	5	b	4068	Sliced RTE poultry meat	8.18	7.36	7.18	7.77	-0.82		Y and M	Y and M
	5	b	4464	Sliced RTE smoked poultry meat	1.90	0.00	1.00	0.95	-1.90		Y and M	/
	5	c	3070	Cooked salmon food	8.18	9.48	7.18 / 8.48	8.83	1.30		Y	Y

Y = yeast

M = mold

For the samples giving interpretable results with both methods, a higher enumeration was observed with the CompactDry™ YMR for 2 samples (differences varying from -0.81 to 1.15 log), while 3 samples were concerned by a lower enumeration (differences varying from -0.96 to -1.12 log). Note that all these samples were naturally contaminated with either yeast and moulds or yeast alone. The differences are distributed equally above and below the limits and doesn't seem to be due to a particular matrix nor type of contaminant.

3.2.5 Discordant results

The samples are classified in three categories (See Table 6).

Table 6 - Classification of the samples

		Number of samples
Interpretable results by both methods	< LCL	3
	> UCL	2
	Total	5
<4 CFU/plate	< LCL	1
	> UCL	1
	Total	2
< or > the quantification limit	< LCL	6
	> UCL	11
	Total	17
Total < LCL		10
Total >UCL		14
TOTAL		24

Among the interpretable results, only 5 samples are outside the limits with an equal repartition between above and below the 95% confidence limits. This corresponds to 5.2 % of the total number of interpretable results.

3.2.6 Conclusion

The relative trueness study of the alternative method is satisfying. The alternative method is reliable when compared to the reference method.

3.3 Accuracy profile study

The accuracy profile is a 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.

3.3.1 Matrices

Five matrices, with two different batches per matrix, were tested with three contamination levels and five test portions per level. The tested categories, types, matrix and inoculated strains are provided in Table 7.

Table 7 - Categories, types and matrices

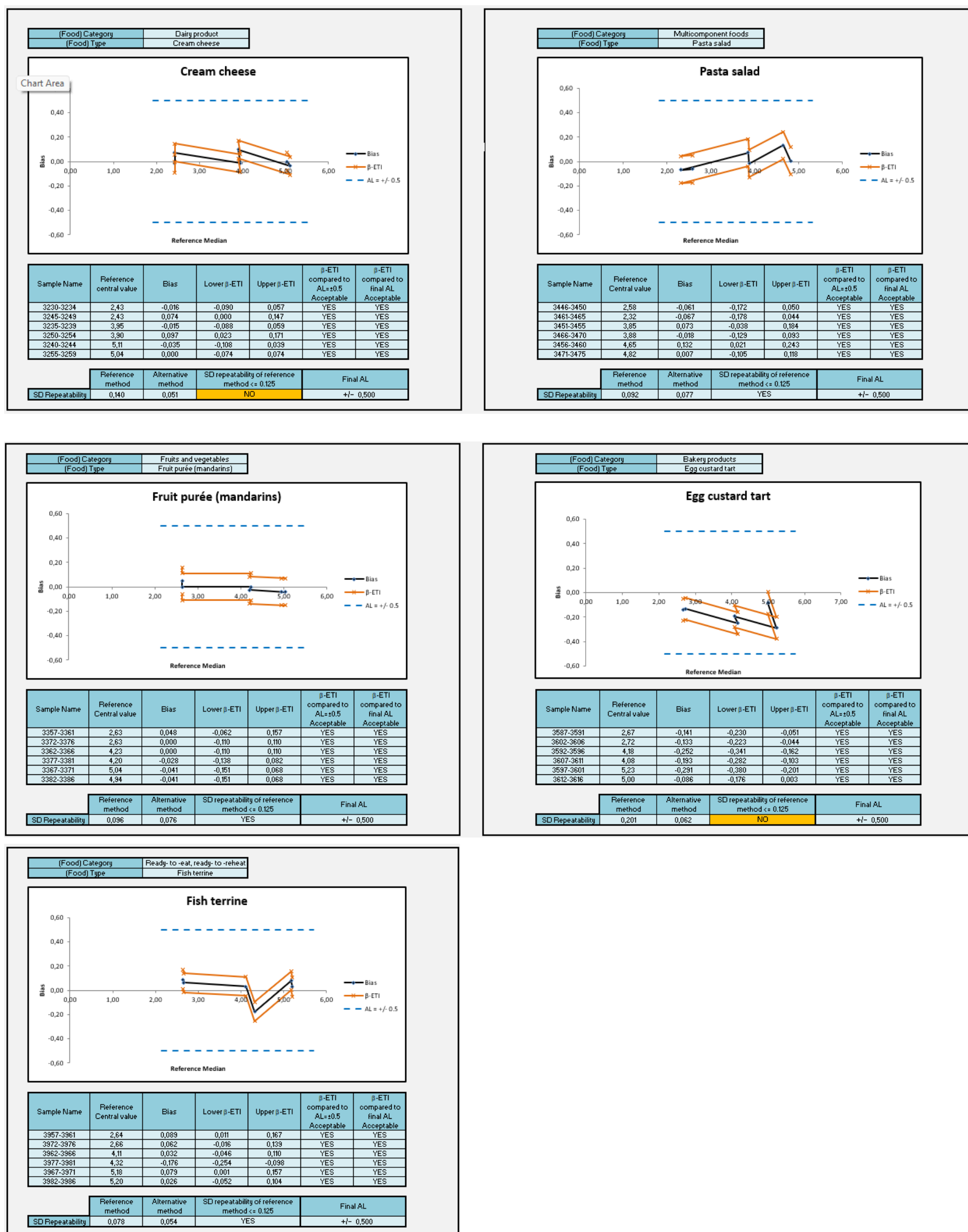
Category		Type	Product	Inoculated strain	Origin	Inoculation level (CFU/g)
1	Dairy products	Cheese	Cream cheese	<i>Saccharomyces.cerevisiae</i> Ad999 (yeast)	Cheese	100 1000 100000
2	Multicomponent foods	Composite foods with substantial raw ingredients	Pasta salad	<i>Candida pseudotropicalis</i> Y2 (yeast)	Cucumber salad	
3	Fruits and vegetables	Fresh fruit salad and fruit purees	Fruit purée	<i>Cryptococcus albidus</i> Ad2436 (yeast)	Pineapple juice	
4	Bakery products	Bakery egg-based products	Egg custard tart	<i>Penicillium brevicompactum</i> Ad2431 (moulds)	Pastry	
5	Ready to eat and ready to reheat foods	Cooked and cured fish products	Fish terrine	<i>Sarocladium kiliense</i> Ad2931 (moulds)	Algae	

3.3.2 Calculation and interpretation

The raw data are provided in **Appendix 9**. The summary tables (in log CFU/g) and calculations are provided in **Appendix 10**. The statistical results and the accuracy profiles are provided Figure 3.

The calculations were done using the AP Calculation Tool MCS (Clause 6-1-3-3 calculation and interpretation of accuracy profile study) ver 31-07-2018 available on <http://standards.iso.org/iso/16140>.

Figure 3 – Accuracy profile



The acceptability limits are fixed at ± 0.5 log for all the matrices tested. The accuracy profiles are comprised within the Acceptability Limits for all the tested matrices.

3.3.3 Conclusion

The observed profiles meet the AL. All the accuracy profiles fulfil the performance criteria.

3.4 Inclusivity and exclusivity

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.

3.4.1 Protocol

> **Inclusivity**

50 target strains were tested, including 27 yeast and 23 moulds. Strains were grown in appropriate conditions. Decimal dilutions were done and enumerated once with the alternative method, the reference method and using a non-selective agar.

> **Exclusivity**

30 non-target strains were tested. Strains were grown in appropriate conditions. Decimal dilutions were done and enumerated once with the alternative method, the reference method and using a non-selective agar.

3.4.2 Results

The raw data are provided in **Appendix 11**.

All moulds and 24 yeast appear positives on the alternative method with colonies varying from blue to cream-grey colonies. Low log differences were observed in comparison to the reference method with a minimum difference at -0.41 and a maximum at 0.43. The average log difference is -0.05 log.

For three yeast strains (*Rhodotorula slooffiae* A1031, *Saccharomycopsis vini* CIB7 and *Saccharomyces rouxii* Ad2058), no growth was observed on the alternative method.

Two other strains of the *Saccharomyces* genus (*Saccharomyces bayanus* CLIB 181 and *Saccharomyces cerevisiae* Ad998) and another strain of the *Rhodotorula* genus (*Rhodotorula graminis* Ad1032) have been tested and gave satisfying results.

All exclusivity strains appear negative on the media with no growth.

3.5 Practicability

The alternative method practicability was evaluated according to the AFNOR criteria relative to method comparison study.

Storage conditions, shelf-life and modalities of utilisation after first use	The CompactDry™ -YMR plates are stored at +1 to +30°C.		
Time to result	Steps	Reference method ISO 21527-1	Alternative method CompactDry™ TC
	Sampling	Day 0	Day0
	Reading	Day 5	Day 3
	Final result	Day 5	Day 3
Common step with the reference method	The initial suspension is common to the reference and alternative method		

The results are available in 3 days with the CompactDry™ YMR method while 5 days are required using the ISO 21527-1 method. For the alternative method, reduced amount of space is required for storage and incubation.

4 INTER-LABORATORY STUDY

The inter-laboratory 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.

4.1 Study organisation

> Collaborators number

Samples were sent to 13 Collaborators.

> Matrix and strain used

A cream dessert was contaminated with *Saccharomyces cerevisiae* Ad999 isolated from a dairy product.

For this study, each sample were co-inoculated with 1 strain in addition to the *Saccharomyces cerevisiae*: *B. cereus* Ad2169. This co-inoculation allowed to add aerobic mesophilic flora to the pasteurised cream dessert.

> Samples

Samples were prepared and inoculated on Wednesday 20 November 2024, as described below:

- 7 blind coded samples (10 g) for enumeration: 2 samples per inoculation level (Level 1, Level 2, Level 3) and 1 sample for Level 0. These samples were be tested for the enumeration of: Total viable yeasts and moulds by the ISO 21527-1 reference method and the CompactDry™ YMR method.
- 1 inoculated sample (labelled “Sample for Total Count enumeration”) for aerobic mesophilic flora enumeration by the ISO 4833-1 method,
- 1 water flask labelled “Temperature Control”,
- 1 probe which monitors the temperature during shipping and test sample storage.

> Inoculation

The targeted inoculation levels were the following:

Strain	Level L0	Level L1	Level L2	Level L3
	CFU/mL	CFU/mL	CFU/mL	CFU/mL
<i>Saccharomyces cerevisiae</i> Ad999	0	500	10 000	100 000

> Labelling and shipping

Blind coded samples were placed in isothermal boxes, which contained cooling blocks, and express-shipped to the different laboratories.

A temperature control flask containing a sensor was added to the package in order to register the temperature profile during the transport, the package delivery and storage until analyses.

Samples were shipped in 24 h to 48 h to the involved laboratories. The temperature conditions had to stay lower or equal to 8°C during transport and had to stay at 5 ± 3°C in the labs.

> Analyses

Collaborative study laboratories and the expert laboratory carried out the analyses on Friday 22 November 2024 with the alternative and reference methods. **The analyses by the reference method and the alternative method were performed on the same day.**

The collaborative study instructions were sent on Monday 4th of November 2024.

4.2 Experimental parameters controls

4.2.1 Sample stability

In order to evaluate the *Saccharomyces cerevisiae* Ad999 strain behaviour during transport, bacterial counts were done at different time, i.e. inoculation time, after 24 h and 48 h of storage at $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$. Results are reported in Table 8.

Table 8 - *Saccharomyces cerevisiae* count with the ISO 21527-1 method
(in log CFU/ g)

Yeast and moulds enumeration				
Inoculation level	Day of analysis	Reference method: ISO 21527-1	Alternative method: CompactDry™ YMR	log(alt)-log(ref)
1	Day 0	340	330	-0.01
		320	210	-0.18
	Day 1	270	350	0.11
		250	250	0.00
	Day 2	310	320	0.01
		310	260	-0.08
2	Day 0	6 600	6 200	-0.03
		7 100	6 500	-0.04
	Day 1	7 000	6 500	-0.03
		5 300	6 000	0.05
	Day 2	8 000	6 700	-0.08
		6 500	6 200	-0.02
3	Day 0	79 000	67 000	-0.07
		69 000	60 000	-0.06
	Day 1	44 000	65 000	0.17
		62 000	55 000	-0.05
	Day 2	88 000	56 000	-0.20
		63 000	65 000	0.01

No evolution was observed during 48 h storage at $5 \pm 3^{\circ}\text{C}$.

4.2.2 Logistic conditions

The temperatures measured at reception by the Labs, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 9.

Table 9 - Sample temperatures at receipt

Collaborator	Temperature measured by the probe (°C) during transport and storage			Temperature measured at receipt		Receipt date and time		Analysis date	
	Average	Minimum	Maximum	By the probe (°C)	By the collaborator (°C)				
A1	2.7	0.9	19.9	5.0	4.4	22/11/2024	11:00 am	22/11/2024	11:00 am
A2	2.7	0.9	19.9	5.0	4.4	22/11/2024	11:00 am	22/11/2024	11:00 am
A3	2.7	0.9	19.9	5.0	4.4	22/11/2024	11:00 am	22/11/2024	11:00 am
B	1.5	0.1	20.2	4.0	3.7	21/11/2024	03:10pm	22/11/2024	01:20 pm
C1	4.7	0	19.8	9.9	11.5	25/11/2024	09:50 am	25/11/2024	03:00 pm
C2	4.7	0	19.8	9.9	11.5	25/11/2024	09:50 am	25/11/2024	03:00 pm
D1	7.8	0.7	19.6	13.0	13.1	25/11/2024	10:45 am	25/11/2024	12:05 am
D2	7.8	0.7	19.6	13.0	13.1	25/11/2024	10:45 am	25/11/2024	12:05 am
E1	2.9	0.0	19.7	5.5	5.6	22/11/2024	03:30pm	25/11/2024	03:00 pm
E2	2.9	0.0	19.7	5.5	5.6	22/11/2024	03:30pm	25/11/2024	09:00 am
F1	2	0.3	19.5	2.5	3.2	22/11/2024	09:30 am	22/11/2024	03:00 pm
F2	2	0.3	19.5	2.5	3.2	22/11/2024	09:30 am	22/11/2024	03:00 pm
G	1.4	0.4	19.6	2.0	1.2	21/11/2024	10:45 am	22/11/2024	10:00 am
H (ADRIA)	4.0	1.3	19.7	7.5	7.9	22/11/2024	10:00 am	22/11/2024	12:30 am

No problem was encountered during the transport or at receipt for nine collaborators. All the samples were delivered on time and in appropriate conditions. Temperatures during shipment and at receipt were all correct.

For four collaborators (two laboratories), the samples arrived three days late (November, 25 instead of November, 22) due to bad weather conditions. The temperatures measured on receipt by the probe and by the collaborator were above 8.0°C. The temperature probe recorded temperatures above 8.0°C for 22h (C1 and C2) and for 63h (for D1 and D2). It was therefore decided to remove these collaborators from the analysis.

Collaborators E1 and E2 received the samples on time but carried out the analysis November, 25 instead of November, 22 after samples storage at 5±3°C.

According to the ISO 16140-2, the analysis of samples shall be performed in each laboratory at the stipulated date. However, as the probe recording indicated temperatures below 8.0°C during transport and storage for E1 and E2, the decision to keep or remove those datasets was discussed with the technical committee.

Two choices were available

- Option 1: interpretation with collaborators E1 and E2 (9 datasets in total).
- Option 2: interpretation without collaborators E1 and E2 but with those of the expert laboratory (8 datasets in total).

The AFNOR technical committee (of February 2025) decided to keep the data sets of collaborators E1 and E2 and to proceed the interpretation according to the option1. No impact on the consistency of results was observed between the two options.

4.2.3 Homogeneity of inoculation

Homogeneity tests were conducted according to the ISO/TS 22117. Ten samples per inoculation level were analysed in duplicate by the reference method. The results are provided in **Appendix 12**. The test concluded that the samples were sufficiently homogeneous for the three contamination levels.

4.2.4 Aerobic mesophilic flora

For this study, each sample were co-inoculated with 1 strain in addition to the *Saccharomyces cerevisiae*: *B. cereus* Ad2169 at a targeted level 10^3 CFU/g. This co-inoculation allowed to add aerobic mesophilic flora to the pasteurised cream dessert.

The aerobic mesophilic flora was enumerated thanks to the “Sample for Total Count enumeration” by the ISO 4833-1 method. See Table 10.

Table 10 - Aerobic mesophilic flora enumeration of the collaborators

Collaborator	Aerobic mesophilic flora enumeration
	ISO 4833-1 (CFU/g)
A1	1.2×10^2
A2	2.5×10^2
A3	1.8×10^2
B	1.6×10^2
C1	1.3×10^2
C2	1.1×10^2
D1	2.4×10^2
D2	2.5×10^2
E1	9.4×10^2
E2	9.5×10^2
F1	1.7×10^2
F2	4.0×10^2
G	1.7×10^2
H (ADRIA)	2.4×10^2

The aerobic mesophilic flora enumeration was slightly lower than expected but consistent between collaborators and the expert laboratory.

4.3 Result analysis

The raw data are given in **Appendix 13**.

4.3.1 Results obtained by the expert Lab.

The results obtained by the expert Laboratory are the following (See Table 11).

Table 11 – Results obtained by the expert Lab.

Level	Targeted inoculation level	Reference method	Alternative method
L0	/	<10	<10
L1	500	310 310	320 260
L2	10 000	8 000 6 500	6 700 6 200
L3	100 000	88 000 63 000	56 000 65 000

The results obtained are slightly lower than the targeted inoculation levels.

The analyses were performed by an independent analyst in order to use the dataset if required.

4.3.2 Results obtained by the collaborators

Samples were sent to 13 collaborators.

The interpretation was carried out according to the option 1. The interpretation was done with **9 datasets**:

- Removal of collaborators C1, C2, D1 and D2 because of high temperature observed during shipment.
- Consideration of collaborators E1 and E2 despite late receipt of samples.

For three samples from two collaborators E1 (samples n°1 and 6) and E2 (sample n°9), moulds were enumerated. After verification by the expert laboratory, these colonies were finally considered as yeasts.

A summary of the test results is given in Table 12 (CFU/g) and Table 13 (log CFU/g).

Table 12 - Summary of data (CFU/g) – Option 1

Yeasts and moulds enumeration														
Laboratory	Raw data (CFU/g)													
	level 0		level 1				level 2				level 3			
	Reference method ISO 21527-1	CompactDry™ YMR method	Reference method ISO 21527-1		CompactDry™ YMR method		Reference method ISO 21527-1		CompactDry™ YMR method		Reference method ISO 21527-1		CompactDry™ YMR method	
	Replicate 1	Replicate 1	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2
A1	<10	<10	910	480	200	290	5300	7100	8800	8300	130000	65000	110000	86000
A2	<10	<10	530	530	300	170	7100	5200	7500	7200	55000	55000	71000	70000
A3	<10	<10	480	300	150	180	5600	5300	7600	7500	70000	55000	72000	51000
B	<10	<10	260	260	200	220	4900	5000	6300	6400	71000	55000	52000	80000
E1	<10	<10	220	300	220	270	3800	5400	2300	4800	76000	150000	69000	120000
E2	<10	<10	170	170	73	170	2100	6100	2000	4800	50000	56000	36000	40000
F1	<10	<10	270	73	260	240	2800	4100	5000	5200	42000	44000	65000	61000
F2	<10	<10	55	64	260	160	4000	3500	6600	6200	24000	39000	70000	43000
G	<10	<10	290	250	320	330	9100	19000	12000	11000	73000	57000	83000	74000

Table 13 - Summary of data (log CFU/g) – Option 1

Yeasts and moulds enumeration														
Laboratory	Raw data (logCFU/g)													
	level 0		level 1				level 2				level 3			
	Reference method ISO 21527-1	CompactDry™ YMR method	Reference method ISO 21527-1		CompactDry™ YMR method		Reference method ISO 21527-1		CompactDry™ YMR method		Reference method ISO 21527-1		CompactDry™ YMR method	
	Replicate 1	Replicate 1	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2
	A1	<1.00	<1.00	2.96	2.68	2.30	2.46	3.72	3.85	3.94	3.92	5.11	4.81	5.04
A2	<1.00	<1.00	2.72	2.72	2.48	2.23	3.85	3.72	3.88	3.86	4.74	4.74	4.85	4.85
A3	<1.00	<1.00	2.68	2.48	2.18	2.26	3.75	3.72	3.88	3.88	4.85	4.74	4.86	4.71
B	<1.00	<1.00	2.41	2.41	2.30	2.34	3.69	3.70	3.80	3.81	4.85	4.74	4.72	4.90
E1	<1.00	<1.00	2.34	2.48	2.34	2.43	3.58	3.73	3.36	3.68	4.88	5.18	4.84	5.08
E2	<1.00	<1.00	2.23	2.23	1.86	2.23	3.32	3.79	3.30	3.68	4.70	4.75	4.56	4.60
F1	<1.00	<1.00	2.43	1.86	2.41	2.38	3.45	3.61	3.70	3.72	4.62	4.64	4.81	4.79
F2	<1.00	<1.00	1.74	1.81	2.41	2.20	3.60	3.54	3.82	3.79	4.38	4.59	4.85	4.63
G	<1.00	<1.00	2.46	2.40	2.51	2.52	3.96	4.28	4.08	4.04	4.86	4.76	4.92	4.87

4.4 Calculation and interpretation

4.4.1 Visual linearity checking

The figure 4 (option 1) show the data points after $\log_{10}$ transformation. The visual inspection shows that the alternative method gives results, which are proportional to those of the reference method. The data are distributed closely to the first bisecting lines with a slope equal to 1 except for five samples. See Table 14.

For one sample at L1 (n°1), the alternative method gave lower results compare to the reference method with a difference $\log(\text{alternative CFU/g}) - \log(\text{reference CFU/g})$ equal to -0.66.

For four samples (n°6, 9 and 14 at L1 and n°10 at L3), the reference method gave lower results compare to the alternative method. Indeed, the difference between the $\log(\text{obtained CFU/g})$ to the $\log(\text{targeted CFU/g})$ is between -0.62 to -0.96 for the reference method which show an undercount with the reference method.

Figure 4 - Visual linearity checking – Option 1

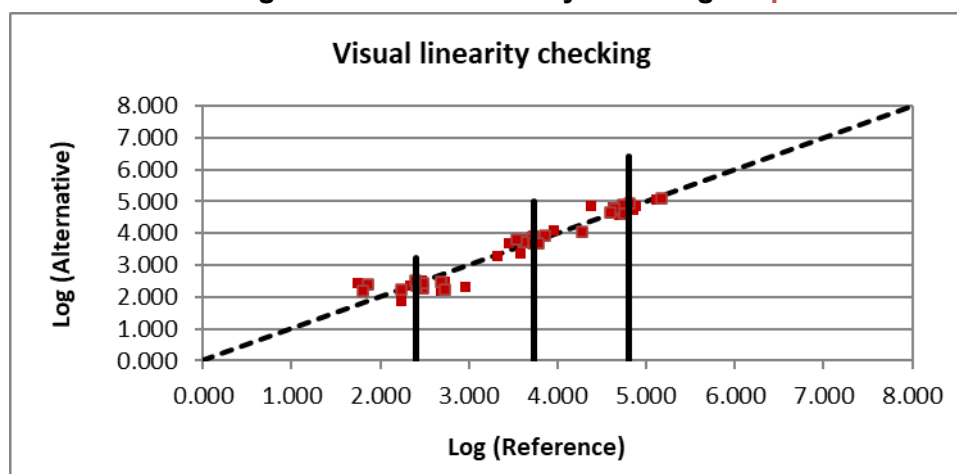


Table 14 - Scattered samples

Level	Collaborator	Sample	Targeted data (log CFU/mL)	Obtained Raw data		Difference log(alternative) -log(reference)	Difference log(obtained) - log(target)	
				(log CFU/g)			Reference method	CompactDry™ YMR method
				Reference method	CompactDry™ YMR method			
L1	A1	1	2.70	2.96	2.30	-0.66	0.26	-0.40
	F1	6	2.70	1.87	2.38	0.51	-0.83	-0.32
	F2	9	2.70	1.74	2.41	0.67	-0.96	-0.29
		14	2.70	1.81	2.20	0.39	-0.89	-0.50
L3	F2	10	5.00	4.38	4.85	0.47	-0.62	-0.15

It can be noticed that none of the scattered point are coming from E1 or E2 datasets despite the latter date of analysis. The values observed for those datasets are close to the one of the other laboratories retained for interpretation.

4.4.2 Accuracy profile calculation

Statistical calculations were done according to the Excel spreadsheet available on <http://standards.iso.org/ISO/16140>. A summary of the statistical test is provided in Table 15.

Table 15 - Summary of statistical tests – Option 1

Accuracy profile		0.5			Application of clause 6.2.3 Step 8: If any of the values for the β-ETI fall outside the acceptability limits, calculate the pooled average reproducibility standard deviation of the reference method. Step 9: Calculate new acceptability limits as a function of this standard deviation.		
Study Name	CompactDry YMR						
Date	Friday 22 November 2024						
Coordinator	ADRIA						
Tolerance probability (beta)	80%	80%	80%				
Acceptability limit in log (lambda)	0.50	0.50	0.50				
		Alternative method			Reference method		
Levels		Low	Medium	High	Low	Medium	High
Target value		2.392	3.715	4.775			
Number of participants (K)		9	9	9	9	9	9
Average for alternative method		2.325	3.785	4.822	2.392	3.715	4.775
Repeatability standard deviation (sr)		0.125	0.118	0.099	0.161	0.150	0.120
Between-labs standard deviation (sL)		0.097	0.166	0.101	0.295	0.145	0.138
Reproducibility standard deviation (sR)		0.158	0.203	0.141	0.336	0.209	0.183
Corrected number of dof		14.331	11.155	12.861	10.065	13.145	12.198
Coverage factor		1.394	1.424	1.406			
Interpolated Student t		1.344	1.362	1.351			
Tolerance interval standard deviation		0.1643	0.2125	0.1470			
Lower TI limit		2.104	3.496	4.623			
Upper TI limit		2.546	4.075	5.021			
Bias		-0.067	0.070	0.047			
Relative Lower TI limit (beta = 80%)		-0.288	-0.219	-0.151			
Relative Upper TI limit (beta = 80%)		0.154	0.360	0.246			
Lower Acceptability Limit		-0.50	-0.50	-0.50			
Upper Acceptability Limit		0.50	0.50	0.50			
New acceptability limits may be based on reference method pooled variance							
Pooled repro standard dev of reference		0.252					

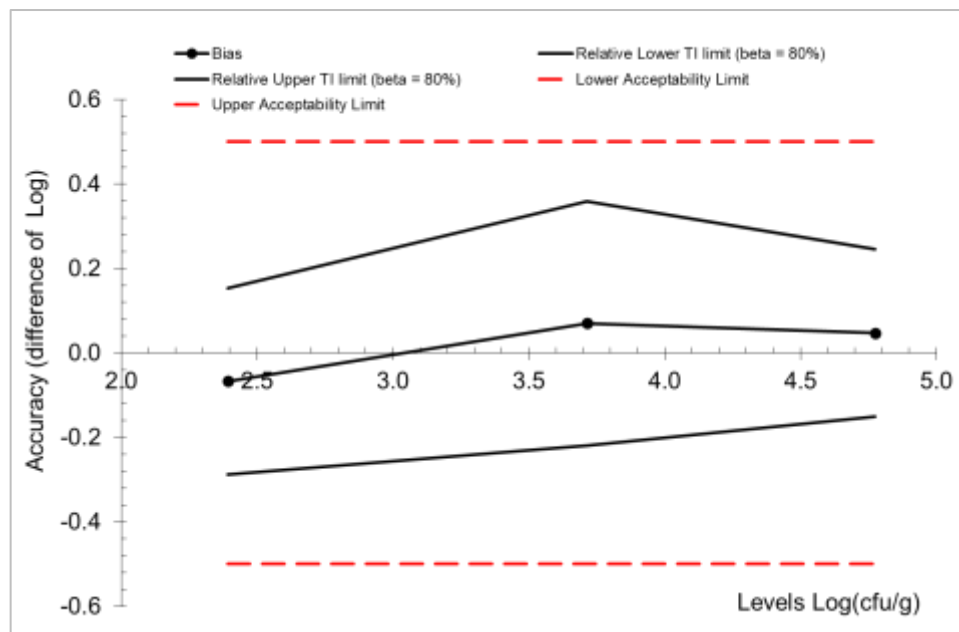
A summary of the obtained values is given in Table 16.

Table 16 - Summary of obtained values – Option 1

	Dataset		
	9 collaborators		
	Low level L1	Medium level L2	High level L3
Target value	2.392	3.715	4.775
Bias	-0.067	0.070	0.047
β .ETI lower (80 %)	-0.288	-0.219	-0.151
β .ETI upper (80 %)	0.154	0.360	0.246
Lower AL	- 0.500		
Upper AL	+ 0.500		

These values are collected in a graphical representation together with the acceptability limits (AL). This representation is given Figure 5.

Figure 5 - Accuracy profile – Option 1



It is observed that for all the levels, the tolerance interval limits of the alternative method meet the acceptable limits (AL) of ± 0.5 log.

The observed bias varies from -0.067 log to -0.070 log.

The alternative method is considered as equivalent to the reference method as β .ETI values meet the Acceptability Limits fixed at ± 0.5 log whatever the inoculation level.

4.4.2.1 Conclusion

The alternative method is equivalent to the reference method.

5 CONCLUSION

The method comparison study conclusions are:

The observed data and interpretation confirm the performances of the alternative method:

- 133 samples were tested in the relative trueness study, which provide 96 interpretable results, which clearly satisfied the required criteria for quantitative method comparison per ISO 16140-2.
- The observed profiles meet the AL set at ± 0.5 Log CFU/g in the EN ISO 16140-2:2016.
- The inclusivity and exclusivity testing shows satisfying results.
- The enumeration results are available in $72\text{h} \pm 3\text{h}$ while 5 days is required for the ISO 21527-1.

The inter-laboratory study conclusions are:

- The quality assurance parameters were verified (*i.e.* inoculation homogeneity, targeted levels, strain stability, logistic conditions, analyses), confirming that the inter-laboratory study was conducted in appropriate conditions.
- The data interpretations were done according to the ISO 16140-2. For the three contamination levels, the alternative method is accepted as equivalent to the reference method.

Based on the results obtained for the method comparison study and the inter-laboratory study, the alternative method is considered equivalent to the reference method.

Quimper, 10 July 2025

Lizaïg GOUGUET

Study Engineer

Method performance in food microbiology

Astrid CARIOU

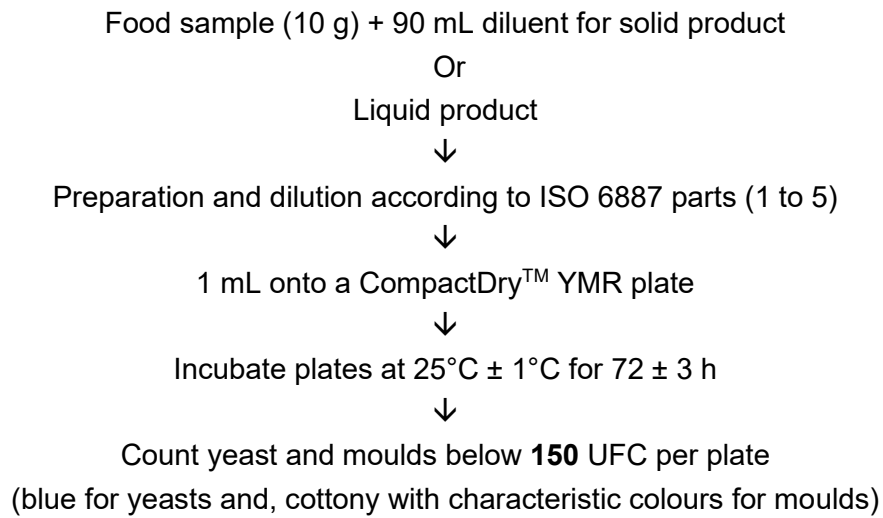
Manager

Method performance in food microbiology

I hereby attest to the validation of the results of the analyses carried out under the COFRAC accreditation.

I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

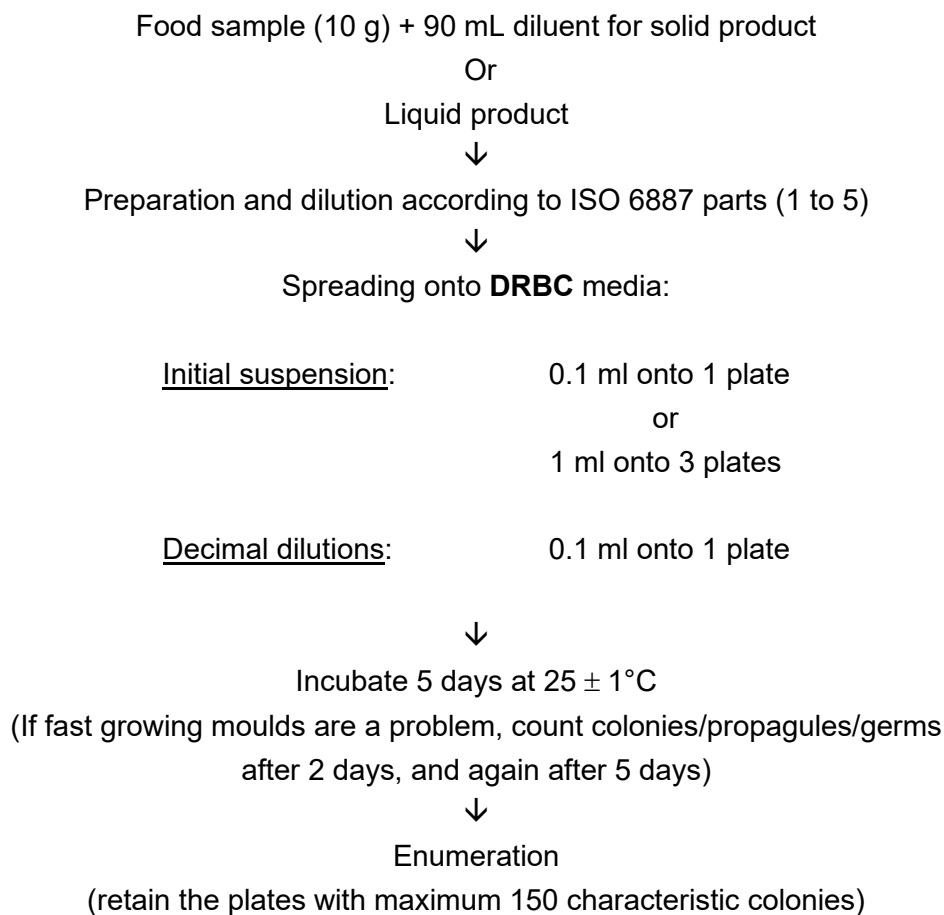
**Appendix 1 – Flow diagram of the alternative method: CompactDry™ YMR
(yeasts and moulds)**



(1): both incubation times were tested during the study

Appendix 2 – Flow diagram of the reference method: ISO 21527
“Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds” –

Part 1: Colony-count technique in products with water activity greater than 0.95



Appendix 3 – Flow diagram of the protocol applied during the validation study

Food sample: (10 g) + BPW (90 mL)

Environmental sample: 1 pre-moisten¹ swab + 9 ml BPW

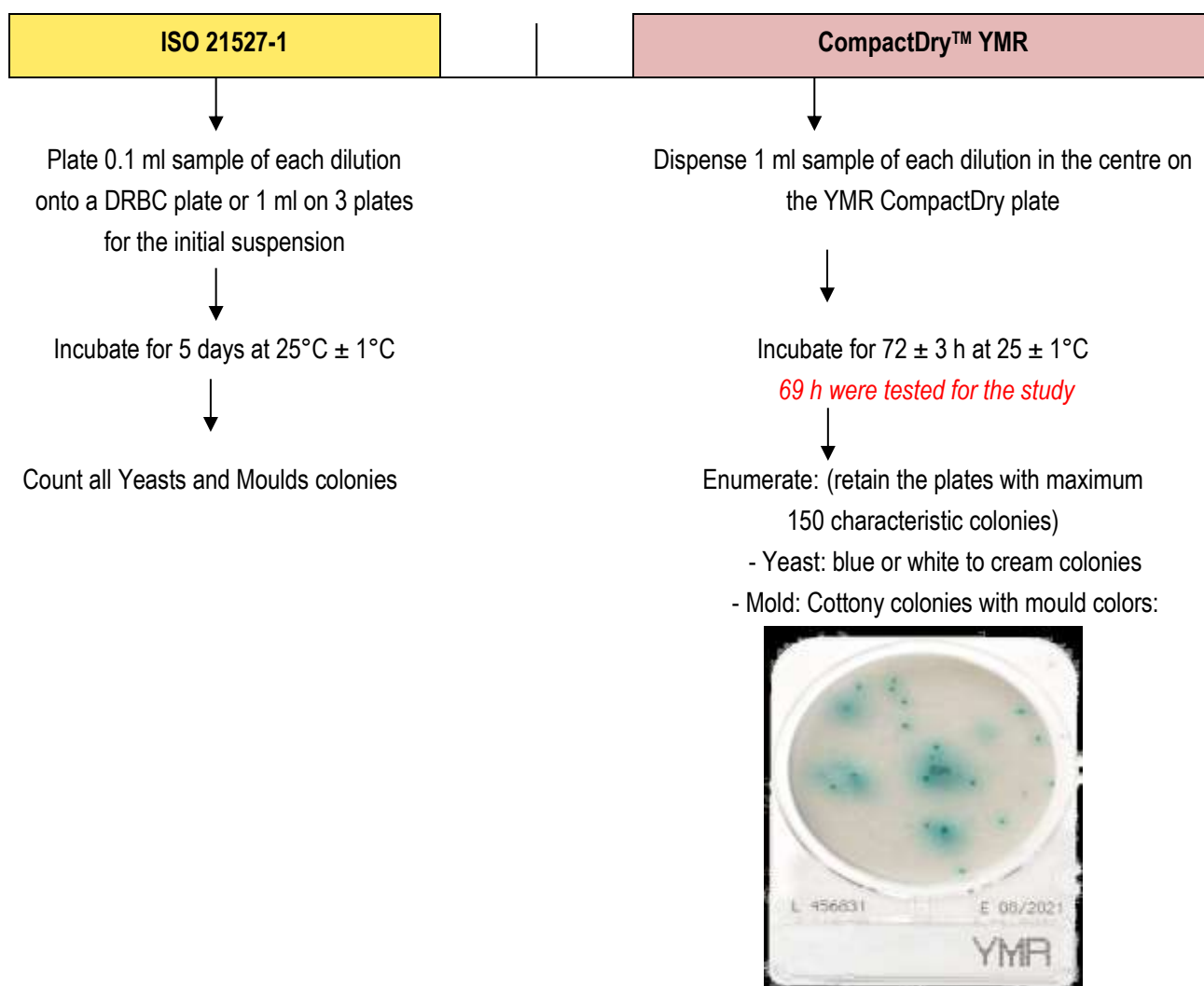
1 pre-moisten sponge + 90 ml BPW

1 pre-moisten wipe + 225 ml BPW

Homogenise using Stomacher.

Liquid product: direct sampling onto the media

Further dilution in BPW (1ml in 9ml)



¹ For sampling before cleaning process, BPW is used. After cleaning process, the following protocol is applied:

- 1 swab + 1 ml leetheen broth
- 1 sponge + 10 ml leetheen broth
- 1 wipe + BPW + 10 % leetheen broth

Appendix 4 – Artificial contaminations of samples

Year of analysis	Sample	Product (French name)	Product	Artificial contamination				Category	Type
				Strain	Origin	Injury protocol	Injury measurement		
2023	3559	Yaourt avec morceaux de fruits abricot	Yogurts with fruits (apricot)	<i>Candida zeylanoides</i> Ad1824	Vegetable product	Seeding 48h at 3±2°C	/	1	b
2023	3560	Yaourt avec morceaux de fruits nectarine	Yogurts with fruits (nectarine)	<i>Candida zeylanoides</i> Ad1824	Vegetable product	Seeding 48h at 3±2°C	/	1	b
2023	3561	Yaourt au lait frais entier à la rhubarbe	Yogurts with fruits (rhubarb)	<i>Candida zeylanoides</i> Ad1824	Vegetable product	Seeding 48h at 3±2°C	/	1	b
2023	5330	Mousse au chocolat noir	Chocolate mousse	<i>Aspergillus fumigatus</i> Ad1053 (spores)	Environmental samples	Seeding 48h 3±2°C	/	2	a
2023	5331	Mousse au chocolat noir 70%	Chocolate mousse (cocoa 70%)	<i>Penicillium citreonigrum</i> Ad1052 (spores)	Environmental samples	Seeding 48h 3±2°C	/	2	a
2023	5332	Salade tartare lasagnettes au surimi	Pasta salad with surimi	<i>Penicillium citreonigrum</i> Ad1052 (spores)	Environmental samples	Seeding 48h 3±2°C	/	2	a
2023	3554	Macédoine de légumes	Vegetable salad with mayonnaise	<i>Candida versatilis</i> CLIB431	Food product	Seeding 48h at 3±2°C	/	2	b
2023	3555	Macédoine de légumes, pois doux, haricots verts, carottes, navet	Vegetable salad with mayonnaise	<i>Candida versatilis</i> CLIB431	Food product	Seeding 48h at 3±2°C	/	2	b
2023	3556	Piémontaise jambon tomates fraîches	Piemontaise salad	<i>Debaryomyces hansenii</i> Ad3421	Food product	Seeding 48h at 3±2°C	/	2	b
2023	4820	Piémontaise	Piemontaise salad	<i>Candida sake</i> Ad2737	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	4821	Piémontaise au jambon	Piemontaise salad with ham	<i>Candida sake</i> Ad2737	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	4822	Piémontaise au jambon	Piemontaise salad	<i>Candida glabosa</i> Ad2734	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	4832	Riz au crabe avec mayonnaise	Rice salad with mayonnaise and crab	<i>Candida sake</i> Ad2737	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	4833	Macédoine avec mayonnaise	Vegetables salad with mayonnaise	<i>Candida glabosa</i> Ad2734	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	4834	Coquille de crabe, crudités, mayonnaise	Vegetables salad with mayonnaise and crab	<i>Candida glabosa</i> Ad2734	RTE salad	Seeding 48h 3±2°C	/	2	b
2023	3550	Vinaigrette	Dressing	<i>Debaryomyces hansenii</i> Ad3421	Food product	Seeding 48h at 3±2°C	/	2	c
2023	3547	Moutarde de Dijon	Mustard	<i>Candida versatilis</i> CLIB431	Food product	Seeding 48h at 3±2°C	/	2	c
2023	3548	Ketchup tomato	Ketchup	<i>Candida versatilis</i> CLIB431	Food product	Seeding 48h at 3±2°C	/	2	c
2023	3549	Mayonnaise	Mayonnaise	<i>Debaryomyces hansenii</i> Ad3421	Food product	Seeding 48h at 3±2°C	/	2	c
2023	5333	Ketchup français nature	Ketchup	<i>Aspergillus versicolor</i> Ad1112 (spores)	Environmental samples	Seeding 48h 3±2°C	/	2	c
2023	5334	Tomato ketchup	Ketchup	<i>Fusarium oxysporum</i> Ad2060	Unknown	Seeding 48h 3±2°C	/	2	c
2023	5335	Mayonnaise classique à l'huile de colza	Mayonnaise	<i>Aspergillus versicolor</i> Ad1112 (spores)	Environmental samples	Seeding 48h 3±2°C	/	2	c
2023	5336	Sauce tartare cornichon câpres	Tartar sauce	<i>Fusarium oxysporum</i> Ad2060	Unknown	Seeding 48h 3±2°C	/	2	c
2023	5337	Sauce Bearnaise	Bearnaise sauce	<i>Fusarium oxysporum</i> Ad2060	Unknown	Seeding 48h 3±2°C	/	2	c
2023	5338	Sauce aioli	Garlic mayonnaise	<i>Fusarium oxysporum</i> Ad2060	Unknown	Seeding 48h 3±2°C	/	2	c
2023	3551	Pur jus de carotte	Carrot juice	<i>Candida zeylanoides</i> Ad1824	Vegetable product	Seeding 48h at 3±2°C	/	3	b
2023	3552	Pur jus d'orange	Orange juice	<i>Candida zeylanoides</i> Ad1824	Vegetable product	Seeding 48h at 3±2°C	/	3	b
2023	3553	Pur jus de tomates	Tomato juice	<i>Debaryomyces hansenii</i> Ad3421	Food product	Seeding 48h at 3±2°C	/	3	b
2023	4828	100% pur jus pomme	Apple juice	<i>Cryptococcus albidus</i> Ad2436	Fruit purée	Seeding 48h 3±2°C	/	3	b
2023	4829	Jus de pomme	Apple juice	<i>Cryptococcus albidus</i> Ad2436	Fruit purée	Seeding 48h 3±2°C	/	3	b
2023	4824	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	<i>Sporobolomyces roseus</i> Ad2244	Bakery/pastry	Seeding 48h 3±2°C	/	4	b
2023	4823	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	<i>Sporobolomyces roseus</i> Ad2244	Bakery/pastry	Seeding 48h 3±2°C	/	4	b
2023	4825	Blanc d'œuf liquide pasteurisé	Pasteurised liquid egg white	<i>Sporobolomyces roseus</i> Ad2244	Bakery/pastry	Seeding 48h 3±2°C	/	4	b
2023	4826	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	<i>Candida sake</i> Ad2737	RTE salad	Seeding 48h 3±2°C	/	4	b
2023	4827	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	<i>Candida glabosa</i> Ad2734	RTE salad	Seeding 48h 3±2°C	/	4	b
2023	5339	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	<i>Aspergillus versicolor</i> Ad1112 (spores)	Environmental samples	Seeding 48h 3±2°C	/	4	b
2023	5340	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	<i>Aspergillus versicolor</i> Ad1112 (spores)	Environmental samples	Seeding 48h 3±2°C	/	4	b
2023	5341	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	<i>Aspergillus versicolor</i> Ad1112 (spores)	Environmental samples	Seeding 48h 3±2°C	/	4	b
2023	4831	Blanc de dinde en tranche	Sliced RTE poultry meat	<i>Candida glabosa</i> Ad2242	Meat product	Seeding 48h 3±2°C	/	5	b
2023	4830	Blanc de dinde en tranche	Sliced RTE poultry meat	<i>Candida glabosa</i> Ad2242	Meat product	Seeding 48h 3±2°C	/	5	b

Appendix 5 - Relative trueness study: raw data

DAIRY PRODUCTS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	3057	Fromage Neufchâtel	Pasteurised cheese	0.9654	100000	28	14	42	4600000	6.66	10000	52	510000	5.71	1	a
					1000000	7	2	9			100000	4				
2023	3058	Fromage de chèvre picodon	Goat milk cheese	0.9844	100000	0	>150	>150	>15000000	>7.18	100000	>300	110000000	8.04	1	a
					1000000	0	>150	>150			1000000	114	N'	N'		
2023	3059	Fromage de chèvre	Goat milk cheese	0.9818	100000	>150	>150	>150	65000000	7.81	100000	>300	45000000	7.65	1	a
					1000000	36	29	65	N'	N'	1000000	45	N'	N'		
2023	3060	Reblochon fermier	Reblochon cheese	0.9801	100000	0	>150	>150	24000000	7.38	100000	158	17000000	7.23	1	a
					1000000	0	24	24	N'	N'	1000000	28				
2023	3061	Saint Nectaire fermier	Saint Nectaire cheese	0.9811	100000	>150	>150	>150	13000000	7.11	100000	>300	230000000	8.36	1	a
					1000000	10	3	13	N'	N'	1000000	234	N'	N'		
2023	3306	Lait ribot fermenté fermier	Fermented milk	0.9918	100000	57	0	57	5800000	6.76	100000	39	3700000	6.57	1	c
					1000000	7	0	7			1000000	2				
2023	3441	Emmental français râpé	Grated cheese	0.9718	10000000	90	0	90	880000000	8.94	10000000	77	790000000	8.90	1	a
					100000000	7	0	7			100000000	10				
2023	3442	Râpé spécial pizza (emmental, mozza, edam)	Grated cheese	0.9621	10000	5	0	5	45000	4.65	10000	4	40000	4.60	1	a
					100000	0	0	0			100000	1	Ne	Ne		
2023	3443	Conté râpé	Grated cheese	0.9668	1000000	66	0	66	67000000	7.83	1000000	79	75000000	7.88	1	a
					10000000	8	0	8			10000000	3				
2023	3444	Emmental français rappé	Grated cheese	0.9718	10000	0	0	0	<10000	<4.00	10000	0	<10000	<4.00	1	a
					100000	0	0	0			100000	0				
2023	3445	Faisselle moulée à la main	Fermented white cheese	0.9921	100000	114	0	114	12000000	7.08	100000	185	19000000	7.28	1	c
					1000000	21	0	21			1000000	26				
2023	3559	Yaourt avec morceaux de fruits abricot	Yogurts with fruits (apricot)	0.987	10	7	0	7	70	1.85	10	10	100	2.00	1	b
					100	1	0	1			100	1				
2023	3560	Yaourt avec morceaux de fruits nectarine	Yogurts with fruits (nectarine)	0.9875	100	50	0	50	5200	3.72	100	53	5200	3.72	1	b
					1000	6	1	7			1000	4				
2023	3561	Yaourt au lait frais entier à la rhubarbe	Yogurts with fruits (rhubarb)	0.9843	1000	24	0	24	26000	4.41	1000	47	47000	4.67	1	b
					10000	5	0	5			1000	5				
2023	4050	Faisselle au lait cru	White cheese with raw milk	1.0005	10	60	28	88	900	2.95	100	11	1100	3.04	1	c
					100	10	1	11			1000	1				
2023	4051	Beurre au lait cru de vache	Raw butter	0.9596	100	13	26	39	4100	3.61	100	21	2400	3.38	1	c
					1000	3	3	6			1000	5				
2023	4062	Crème crue fermière	Raw cream	0.9979	1000	29	1	30	28000	4.45	1000	21	20000	4.30	1	c
					10000	1	0	1			10000	1				

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DAIRY PRODUCTS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/ plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	4063	Lait ribot fermenté doux et onctueux	Fermented milk	0.9918	10	0	13	13	130	2.11	10	4	400	2.60	1	c
					100	0	1	1			100	0	Ne	Ne		
2023	4064	Lait fermenté	Fermented milk	0.9935	10	0	>150	>150	>15000	>4.18	10	>300	>3000	>3.48	1	c
					100	0	>150	>150			100	>300				
2023	4065	Yaourt à l'ananas avec morceaux	Yogurts with fruits (pineapple)	0.9846	100	>150	5	>150	140000	5.15	100	>300	>30000	>4.48	1	b
					1000	144	0	144	N'	N'	1000	>300				
2023	4066	Yaourt à l'abricot avec morceaux	Yogurts with fruits (apricot)	0.9847	100	>150	0	>150	>150000	>5.18	100	>300	>30000	>4.48	1	b
					1000	>150	0	>150			1000	>300				
2023	4067	Yaourt nectarine avec morceaux	Yogurts with fruits (nectarine)	0.986	100	>150	>150	>150	>150000	>5.18	100	>300	>30000	>4.48	1	b
					1000	>150	51	>150			1000	>300				
2023	5786	Yaourt au lait entier à l'abricot	Yogurts with fruits (apricot)	0.9812	1000	5	75	80	87000	4.94	1000	69	72000	4.86	1	b
					10000	2	14	16			10000	10				
2023	5787	Yaourt au lait entier aux fruits des bois	Yogurts with fruits (forest fruits)	0.9829	1000	18	25	43	44000	4.64	10000	16	160000	5.20	1	b
					10000	1	4	5			100000	2				
2023	5788	Yaourt au lait entier, fruit de la passion et mangue	Yogurts with fruits (passion and mango)	0.9715	10	0	93	93	950	2.98	10	54	570	2.76	1	b
					100	0	11	11			100	9				
2023	5789	Yaourt au lait entier, pêche	Yogurts with fruits (peach)	0.9789	1000	2	26	28	27000	4.43	1000	21	21000	4.32	1	b
					10000	0	2	2			10000	9			1	b

MULTICOMPONENTS FOODS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95					Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type	
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g			Log CFU/g
						Yeasts	Moulds	Total								
2023	3550	Vinaigrette	Dressing	0.9517	100	0	0	0	<100	<2.00	100	1	100	2.00*	2	c
					100000	>150	0	>150			100000	>300				
2023	4058	Sandwich jambon Emmental	Sandwich with ham and cheese	0.9519	1000	0	0	0	<1000	<3.00	1000	1	1000	3.00*	2	a
					100000	>150	0	>150			100000	>300				
2023	5330	Mousse au chocolat noir	Chocolate mousse	0.9718	100	0	4	4	400	2.60	100	0	<100	<2.00	2	a
					100000	>150	3	>150			100000	>300				
2023	3307	Salade de pâtes et surimi	Pasta salad with surimi	0.9907	10	>150	0	>150	>1500	>3.18	10	>300	25000	4.40	2	a
					100	>150	0	>150			100	248				
2023	3308	Salade de pâtes au surimi et ciboulette	Pasta salad with surimi and chives	0.9942	1000000	134	0	134	140000000	8.15	1000000	166	170000000	8.23	2	a
					10000000	16	0	16			10000000	16				
2023	3309	Sandwich rosette et cornichon (pain de mie complet)	Sandwich with delicatessen and pickles	0.9785	100000	32	15	47	4700000	6.67	100000	77	7400000	6.87	2	a
					1000000	3	2	5			1000000	4				
2023	3310	Sandwich poulet rôti mayonnaise, pain moelleux farine complète	Sandwich with chicken meat and mayonnaise	0.9724	10000	>150	0	>150	9300000	6.97	10000	>300	9900000	7.00	2	a
					100000	93	0	93			N'	N'				
2023	3547	Moutarde de Dijon	Mustard	0.9554	10	0	0	0	<10	<1.00	10	0	<10	<1.00	2	c
					100	0	0	0			100	0				
2023	3548	Ketchup tomato	Ketchup	0.9631	10	0	0	0	<10	<1.00	10	0	<10	<1.00	2	c
					100	0	0	0			100	0				
2023	3549	Mayonnaise	Mayonnaise	0.9559	10	84	0	84	890	2.95	10	Impossible to read due to opacity of the matrix	1400	3.15	2	c
					100	14	0	14			100	14				
2023	3554	Macédoine de légumes	Vegetable salad with mayonnaise	0.999	100	0	0	0	<100	<2.00	100	0	<100	<2.00	2	b
					1000	0	0	0			1000	0				
2023	3555	Macédoine de légumes, pois doux, haricots verts, carottes, navet	Vegetable salad with mayonnaise	0.9982	1000	77	0	77	75000	4.88	1000	91	85000	4.93	2	b
					10000	5	0	5			10000	2				
2023	3556	Piémontaise jambon tomates fraîches	Piémontaise salad	0.9918	10	>150	>150	>150	9700	3.99	10	>300	13000	4.11	2	b
					100	70	27	97			100	129				
2023	4055	Vinaigrette légère huile d'olive 12%	Dressing with olive oil	0.9535	1000	0	6	6	6000	3.78	1000	2	2000	3.30*	2	c
					10000	0	0	0			Ne	Ne				
2023	4057	Sandwich thon salade	Sandwich with tuna and salad	0.977	10000	>150	0	>150	3600000	6.56	10000	302	3100000	6.49	2	a
					100000	36	0	36			100000	42				
2023	4061	Torti au surimi et ciboulette	Pasta salad with surimi and chive	0.9817	10000	>150	0	>150	>15000000	>7.18	10000	>300	>30000000	>7.48	2	a
					100000	>150	0	>150			100000	>300				
2023	4820	Piémontaise	Piémontaise salad	0.9961	100	>300	>300	>300	160000	5.20	100	>300	140000	5.15	2	b
					1000	156	3	159			N'	N'				

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MULTICOMPONENTS FOODS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95					Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type	
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g			Log CFU/g
						Yeasts	Moulds	Total								
2023	4821	Piémontaise au jambon	Piemontaise salad with ham	0.9953	10	36	10	46	460	2.66	10	22	240	2.38	2	b
					100	11	6	17			100	4				
2023	4822	Piémontaise au jambon	Piemontaise salad	0.9953	10	47	22	69	700	2.85	10	37	360	2.56	2	b
					100	Impossible to read	8	8			100	3				
2023	4832	Riz au crabe avec mayonnaise	Rice salad with mayonnaise and crab	0.9956	1000	43	0	43	42000	4.62	1000	50	51000	4.71	2	b
					10000	3	0	3			10000	6				
2023	4833	Macédoine avec mayonnaise	Vegetables salad with mayonnaise	0.9918	100	64	0	64	6100	3.79	100	40	4200	3.62	2	b
					1000	3	0	3			1000	6				
2023	4834	Coquille de crabe, crudités, mayonnaise	Vegetables salad with mayonnaise and crab	0.9907	100	117	0	117	12000	4.08	100	153	15000	4.18	2	b
					1000	10	0	10			1000	14				
2023	5331	Mousse au chocolat noir 70%	Chocolate mousse (cocoa 70%)	0.9815	100	0	4	4	400	2.60	100	12	1300	3.11	2	a
					1000	0	0	0	Ne	Ne	1000	2				
2023	5332	Salade tartare lasagnettes au surimi	Pasta salad with surimi	0.9813	100	0	14	14	1300	3.11	100	15	1500	3.18	2	a
					1000	0	0	0			1000	1				
2023	5333	Ketchup français nature	Ketchup	0.9941	100	0	16	16	1500	3.18	100	10	910	2.96	2	c
					1000	0	0	0			1000	0				
2023	5334	Tomato ketchup	Ketchup	0.9868	100	0	0	0	<100	<2.00	100	0	<100	<2.00	2	c
					1000	0	0	0			1000	0				
2023	5335	Mayonnaise classique à l'huile de colza	Mayonnaise	0.951	100	0	81	81	7900	3.90	100	78	7600	3.88	2	c
					1000	0	6	6			1000	6				
2023	5336	Sauce tartare cornichon câpres	Tartar sauce	0.9614	100	0	0	0	<100	<2.00	100	0	<100	<2.00	2	c
					1000	0	0	0			1000	0				
2023	5337	Sauce Bearnaise	Bearnaise sauce	0.9621	100	0	25	25	2500	3.40	100	6	600	2.78	2	c
					1000	0	2	2			1000	0	Ne	Ne		
2023	5338	Sauce aioli	Garlic mayonnaise	0.9572	100	0	8	8	820	2.91	100	4	360	2.56	2	c
					1000	0	1	1			1000	0	Ne	Ne		

FRUITS AND VEGETABLES																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/ plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	3062	Légumes fermentés carotte ciboulette	Fermented vegetables (carrot and chives)	0.9919	10	>150	0	>150	2200	3.34	10	253	2500	3.40	3	c
					100	22	0	22	N'	N'	100	18				
2023	3063	Légumes fermentés kimchi doux	Fermented vegetables (kimchi)	0.9893	100000	48	0	48	4700000	6.67	100000	26	2700000	6.43	3	c
					1000000	4	0	4			1000000	4				
2023	3064	Légumes fermentés betterave aux baies de goji	Fermented vegetables (beetroot)	0.9801	1000	93	0	93	92000	4.96	100	52	5600	3.75	3	c
					10000	8	0	8			1000	10				
2023	3065	Légumes fermentés choux rouge thym	Fermented vegetables (red cabbage)	0.9966	100000	1	130	131	13000000	7.11	100000	147	15000000	7.18	3	c
					1000000	0	11	11			1000000	13				
2023	3299	Champignons émincés à la crème	Sliced mushrooms	1.0014	100	54	1	55	5300	3.72	100	48	4700	3.67	3	a
					1000	3	0	3			1000	4				
2023	3300	Mélange de crudités choux radis carotte	Sliced cabbage and radish	1.0024	100	48	16	64	6700	3.83	1000	29	31000	4.49	3	a
					1000	10	0	10			10000	5				
2023	3301	Salade de fruits ananas, pommes, raisin	Cut fruits (apple, pineapple and grape)	0.9953	1000000	116	0	116	110000000	8.04	1000000	96	95000000	7.98	3	a
					10000000	10	0	10			10000000	9				
2023	3302	Melon en cube	Sliced cantaloupe	0.9975	10000000	23	0	23	23000000	7.36	1000000	141	150000000	8.18	3	a
					100000000	2	0	2			10000000	18				
2023	3303	Pastèque en morceaux	Sliced watermelon	0.9878	1000000	40	0	40	39000000	7.59	1000000	29	29000000	7.46	3	a
					10000000	3	0	3			10000000	3				
2023	3304	Mangue, passion, morceaux de pommes	Slices fruits (mango, passion and apple)	0.9785	10	0	0	0	<10	<1.00	10	0	<10	<1.00	3	a
					100	0	0	0			100	0				
2023	3312	Olives vertes à la Grecque	Fermented green olives	0.9842	1000000	40	29	69	85000000	7.93	1000000	122	120000000	8.08	3	c
					10000000	16	9	25			10000000	11				
2023	3551	Pur jus de carotte	Carrot juice	0.9898	10	12	0	12	150	2.18	10	7	70	1.85	3	b
					100	4	0	4			100	0	Ne	Ne		
2023	3552	Pur jus d'orange	Orange juice	0.9883	10	36	0	36	360	2.56	10	44	420	2.62	3	b
					100	3	0	3			100	2				
2023	3553	Pur jus de tomates	Tomato juice	0.9937	100	71	0	71	7400	3.87	100	55	5600	3.75	3	b
					1000	10	0	10			1000	7				
2023	4054	Purée de vanille avec morceaux de pommes	Apple purée with vanilla	0.9867	100	>150	>150	>150	25000	4.40	10	215	2200	3.34	3	a
					1000	1	24	25	N'	N'	100	23				
2023	4828	100% pur jus pomme	Apple juice	0.991	100	44	0	44	4600	3.66	10	183	1800	3.26	3	b
					1000	7	0	7			100	18				
2023	4829	Jus de pomme	Apple juice	0.9906	100	19	11	30	2900	3.46	100	119	12000	4.08	3	b
					1000	2	0	2			1000	14				

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FRUITS AND VEGETABLES																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95					Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type	
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/ plate	CFU/g			Log CFU/g
						Yeasts	Moulds	Total								
2023	5342	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	0.9714	100000	>150	0	>150	33000000	7.52	100000	>300	34000000	7.53	3	c
					1000000	33	0	33	N'	N'	1000000	34	N'	N'		
2023	5343	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	0.9799	100000	27	0	27	2600000	6.41	100000	30	2800000	6.45	3	c
					1000000	2	0	2			1000000	1				
2023	5344	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	0.9707	100000	92	0	92	9200000	6.96	100000	82	8200000	6.91	3	c
					1000000	9	0	9			1000000	8				
2023	5346	Salade de fruits	Cut fruits salad	0.9929	100	7	0	7	730	2.86	10	59	560	2.75	3	a
					1000	1	0	1			100	2				

BAKERY PRODUCTS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	3054	Tarte aux pommes	Apple pie	0.9547	10	12	0	12	110	2.04	10	20	180	2.26	4	a
					100	0	0	0			100	0				
2023	3052	Tartelette fraise	Pastry with strawberries	0.9905	10000	>150	0	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	4	a
					100000	>150	0	>150			100000	>300				
2023	3053	Tarte aux fruits fraises kiwi, banane, orange	Pastry with fruits	0.9627	10000	>150	0	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	4	a
					100000	>150	0	>150			100000	>300				
2023	3067	Quiche lorraine	Quiche	0.9986	10000	>150	6	>150	11000000	7.04	10000	>300	12000000	7.08	4	c
					100000	112	1	113			N'	N'				
2023	3055	Tarte aux fraises	Pastry with strawberries	0.9841	10000	>150	>150	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	4	a
					100000	200	0	>150			100000	223				
2023	3056	Tarte aux fraises, abricot	Pastry with strawberries and apricot	0.9863	10000	>150	0	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	4	a
					100000	>150	6	>150			100000	251				
2023	3066	Tarte thon légumes	Vegetable tart with tuna	0.9945	10000	>150	0	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	4	c
					100000	>150	0	>150			100000	>300				
2023	3068	Tarte aux poireaux	Leeks tart	0.9994	10000	>150	0	>150	>15000000	>7.18	10000	>300	22000000	7.34	4	c
					100	>150	0	>150			100	>300				
2023	3069	Tarte aux poireaux	Leeks tart	0.9888	10000	>150	>150	>150	>15000000	>7.18	10000	>300	25000000	7.40	4	c
					1000	0	0	0			1000	0				
2023	3311	Pâtisserie au chocolat (trianon)	Pastry with chocolate	0.9533	10	>150	0	>150	>1500	>3.18	10	>300	>30000	>4.48	4	a
					100	0	0	0			100	0				
2023	4046	Pâte feuilletée	Raw dough (puff pastry)	0.9644	10	0	20	20	210	2.32	10	4	40	1.60	4	c
					100	0	3	3			100	0				
2023	4047	Eclair au chocolat	Pastry (Chocolate Eclair)	0.9502	10	17	22	39	410	2.61	10	15	150	2.18	4	a
					100	1	5	6			100	1				
2023	4048	Chou à la chantilly	Pastry, whipped cream puffs	0.9792	100	21	6	27	2900	3.46	100	30	2800	3.45	4	a
					1000	5	0	5			1000	1				
2023	4049	Religieuse café	Pastry	0.9588	10	70	21	91	1000	3.00	10	42	450	2.65	4	a
					100	10	9	19			100	7				
2023	4045	Pâte sablée	Raw dough	0.9673	10	0	20	20	180	2.26	10	1	10	1.00*	4	c
					100	1	0	1			100	0				
2023	4056	Pâte brisée	Raw dough	0.9523	1000	0	68	68	69000	4.84	1000	77	75000	4.88	4	c
					1000	0	8	8			10000	5				
2023	4053	Œuf entier liquide	Whole liquid egg	0.9929	10	10	5	15	150	2.18	10	0	<10	<1.00	4	b
					10000	0	0	0			10000	0				

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

BAKERY PRODUCTS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/ plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	4059	Pâte à pizza fine et ronde	Raw dough for pizza	0.9741	1000	3	1	4	4000	3.60	1000	19	17000	4.23	4	c
					10000	2	0	2	Ne	Ne	10000	0				
2023	4824	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	0.9981	10	0	0	0	<10	<1.00	10	10	100	2.00	4	b
					100000	>150	>150	>150			100000	231	N'	N'		
2023	4069	Jaune d'œuf liquide	Pasteurised liquid egg yolk	0.9715	10000	84	34	118	1200000	6.08	10000	>300	3500000	6.54	4	b
					100000	12	3	15			100000	35	N'	N'		
2023	4070	Jaune d'œuf liquide	Pasteurised liquid egg yolk	0.9718	100	28	51	79	7900	3.90	100	56	5600	3.75	4	b
					1000	1	23	24			1000	15				
2023	4465	Tarte aux nectarines	Pastry with nectarines	0.98	10	49	6	55	520	2.72	10	95	960	2.98	4	a
					100	1	1	2			100	11				
2023	4466	Tarte aux fraises	Pastry with strawberries	0.9855	100	48	31	79	8600	3.93	100	84	8300	3.92	4	a
					1000	9	7	16			1000	7				
2023	4467	Quiche saumon	Salmon quiche	0.9808	100	47	5	52	4900	3.69	10	165	1600	3.20	4	c
					1000	1	1	2			100	9				
2023	4468	Quiche broccolis chèvre	Quiche with broccoli and cheese	0.9922	10	36	10	46	440	2.64	10	34	330	2.52	4	c
					100	1	1	2			100	2				
2023	4469	Quiche aux poireaux	Quiche with leeks	0.9944	10	6	20	26	250	2.40	10	5	50	1.70	4	c
					100	0	1	1			100	0	Ne	Ne		
2023	4470	Quiche tomates	Quiche with tomatoes	0.9966	10	20	3	23	240	2.38	10	10	110	2.04	4	c
					100	3	0	3			100	2				
2023	4823	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	0.9946	10	0	0	0	<10	<1.00	10	18	160	2.20	4	b
					100	0	0	0			100	0				
2023	4825	Blanc d'œuf liquide pasteurisé	Pasteurised liquid egg white	0.9972	10000	>300	7	>300	>300	>2.48	10	86	870	2.94	4	b
					100000	>300	5	>300			100	10				
2023	4826	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	0.9981	1000	92	3	95	90000	4.95	1000	70	66000	4.82	4	b
					10000	4	0	4			10000	3				
2023	4827	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	0.9946	100	>300	0	>300	18000	4.26	100	126	13000	4.11	4	b
					1000	18	0	18	N'	N'	1000	20				
2023	5339	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	0.9919	10	0	69	69	670	2.83	10	>300	1000	3.00	4	b
					100	0	5	5			100	10	N'	N'		
2023	5340	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	0.9983	1000	0	15	15	15000	4.18	1000	10	9100	3.96	4	b
					10000	0	2	2			10000	0				
2023	5341	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	0.9923	1000	0	47	47	46000	4.66	1000	19	17000	4.23	4	b
					10000	0	4	4			10000	0				
2023	5345	Pâtisserie avec fruits	Pastry with fruits	0.9521	100000	50	0	50	5300000	6.72	100000	28	2600000	6.41	4	a
					1000000	8	0	8			1000000	1				

READY-TO-EAT, READY-TO-REHEAT FOODS

Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	3294	Poitrine cuite nature	Cooked delicatessen pork meat	0.9899	1000000	43	0	43	15000000	7.18	1000000	48	50000000	7.70	5	a
					10000000	6	0	6			10000000	7				
2023	3295	Saucisson à l'ail à l'ancienne	Cooked delicatessen (sausage with garlic)	0.9799	1000000	>150	0	>150	190000000	8.28	1000000	174	170000000	8.23	5	a
					10000000	19	0	19			N'	N'				
2023	3296	Jambon rôti avec herbes	Cooked roasted ham with aromatic herbs	0.976	1000000	54	0	54	55000000	7.74	1000000	52	52000000	7.72	5	a
					10000000	7	0	7			10000000	5				
2023	3297	Jambon AC	Cooked ham	0.9663	1000000	142	0	142	140000000	8.15	1000000	160	160000000	8.20	5	a
					10000000	13	0	13			10000000	16				
2023	3298	Roti de porc cuit supérieur	Cooked and RTE pork meat	0.9736	1000000	93	0	93	97000000	7.99	1000000	110	110000000	8.04	5	a
					10000000	14	0	14			10000000	12				
2023	3305	Rillettes de sardines au piment d'Espelette	Fish rillettes	0.9868	10	0	0	0	<10	<1.00	10	0	<10	<1.00	5	c
					100	0	0	0			100	0				
2023	3438	Dés de poulet	RTE poultry meat	0.9786	100	90	0	90	9000	3.95	100	115	11000	4.04	5	b
					1000	9	0	9			1000	9				
2023	3439	Lardons de volaille cuits	RTE poultry meat	0.9762	100000	34	0	34	3400000	6.53	10000	257	2600000	6.41	5	b
					1000000	3	0	3			100000	25				
2023	3440	Emincés de poulet roti	Sliced RTR roasted chicken meat	0.9724	100	>150	0	>150	36000	4.56	100	>300	40000	4.60	5	b
					1000	36	0	36			N'	N'				
2023	4041	Truite fumée brisures	Smoked trout	0.9654	1000	23	8	31	29000	4.46	100	127	12000	4.08	5	c
					10000	0	1	1			1000	8				
2023	4042	Tranchette de saumon fumé	Sliced smoked salmon	0.9509	10	31	1	32	310	2.49	10	35	350	2.54	5	c
					100	1	1	2			100	3				
2023	4043	Filets de hareng fumé doux	Smoked herring	0.9673	100	170	0	170	18000	4.26	100	181	19000	4.28	5	c
					1000	28	0	28			1000	28				
2023	4044	Thon tranché fumé	Sliced smoked tuna	0.953	10	69	9	78	780	2.89	10	69	740	2.87	5	c
					100	7	1	8			100	12				
2023	4052	Emincés de poulet rôti	Sliced roasted chicken meat	0.9724	10000	0	145	145	1500000	6.18	100000	41	3900000	6.59	5	b
					10000	0	20	20			1000000	2				
2023	4060	Filet de hareng fumé au naturel	Smoked herring	0.9673	10000	82	0	82	850000	5.93	10000	85	850000	5.93	5	c
					100000	11	0	11			100000	8				
2023	4463	Blanc de dinde en tranche	Sliced RTE poultry meat	0.9843	10	0	0	0	<10	<1.00	10	0	<10	<1.00	5	b
					100	0	0	0			100	0				
2023	3070	Pâté en croute saumon farci	Cooked salmon food	0.9722	10000	>150	0	>150	>15000000	>7.18	10000	>300	>300000000	>8.48	5	c
					100	0	0	0			Ne	Ne				

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

READY-TO-EAT, READY-TO-REHEAT FOODS																
Year of analysis	Sample No	Product (French name)	Product	Aw	Reference method: ISO 21527-1 ♦ Aw>0.95						Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C				Category	Type
					Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/ plate	CFU/g	Log CFU/g		
						Yeasts	Moulds	Total								
2023	4068	Tranche de jambon de dinde	Sliced RTE poultry meat	0.967	10000	>150	>150	>150	>15000000	>7.18	10000	>300	23000000	7.36	5	b
					100	0	0	0			100	1				
2023	4464	Blanc de dinde fumé en tranche	Sliced RTE smoked poultry meat	0.9833	10	3	5	8	80	1.90	10	0	<10	<1.00	5	b
					100	1	0	1			100	0				
2023	4831	Blanc de dinde en tranche	Sliced RTE poultry meat	0.9816	10	45	0	45	450	2.65	10	58	560	2.75	5	b
					100	4	0	4			100	4				
2023	4830	Blanc de dinde en tranche	Sliced RTE poultry meat	0.9816	10	1	0	1	10	1.00*	10	13	120	2.08	5	b
					1000	0	0	0			Ne	Ne				

Appendix 6 - Relative trueness study: calculations

Year	Sample n°	Product (French name)	Product	Reference method: ISO 21527-1* Aw>0.95	Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C	Mean (ISO 21527-1/ CompactDry™ YMR)	Difference	Category	Type
2023	3057	Fromage Neufchâtel	Pasteurised cheese	6.66	5.71	6.19	-0.96	1	a
2023	3059	Fromage de chèvre	Goat milk cheese	7.81	7.65	7.73	-0.16	1	a
2023	3060	Reblochon fermier	Reblochon cheese	7.38	7.23	7.31	-0.15	1	a
2023	3061	Saint Nectaire fermier	Saint Nectaire cheese	7.11	8.36	7.74	1.25	1	a
2023	3441	Emmental français râpé	Grated cheese	8.94	8.90	8.92	-0.05	1	a
2023	3442	Rappé spécial pizza (emmental, mozza, edam)	Grated cheese	4.65	4.60	4.63	-0.05	1	a
2023	3443	Comté râpé	Grated cheese	7.83	7.88	7.85	0.05	1	a
2023	3559	Yaourt avec morceaux de fruits abricot	Yogurts with fruits (apricot)	1.85	2.00	1.92	0.15	1	b
2023	3560	Yaourt avec morceaux de fruits nectarine	Yogurts with fruits (nectarine)	3.72	3.72	3.72	0.00	1	b
2023	3561	Yaourt au lait frais entier à la rhubarbe	Yogurts with fruits (rhubarb)	4.41	4.67	4.54	0.26	1	b
2023	5786	Yaourt au lait entier à l'abricot	Yogurts with fruits (apricot)	4.94	4.86	4.90	-0.08	1	b
2023	5787	Yaourt au lait entier aux fruits des bois	Yogurts with fruits (forest fruits)	4.64	5.20	4.92	0.56	1	b
2023	5788	Yaourt au lait entier, fruit de la passion et mangue	Yogurts with fruits (passion and mango)	2.98	2.76	2.87	-0.22	1	b
2023	5789	Yaourt au lait entier, pêche	Yogurts with fruits (peach)	4.43	4.32	4.38	-0.11	1	b
2023	3306	Lait ribot fermenté fermier	Fermented milk	6.76	6.57	6.67	-0.20	1	c
2023	3445	Faisselle moulée à la main	Fermented white cheese	7.08	7.28	7.18	0.20	1	c
2023	4050	Faisselle au lait cru	White cheese with raw milk	2.95	3.04	3.00	0.09	1	c
2023	4051	Beurre au lait cru de vache	Raw butter	3.61	3.38	3.50	-0.23	1	c
2023	4062	Crème crue fermière	Raw cream	4.45	4.30	4.37	-0.15	1	c
2023	4063	Lait ribot fermenté doux et onctueux	Fermented milk	2.11	2.60	2.36	0.49	1	c

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

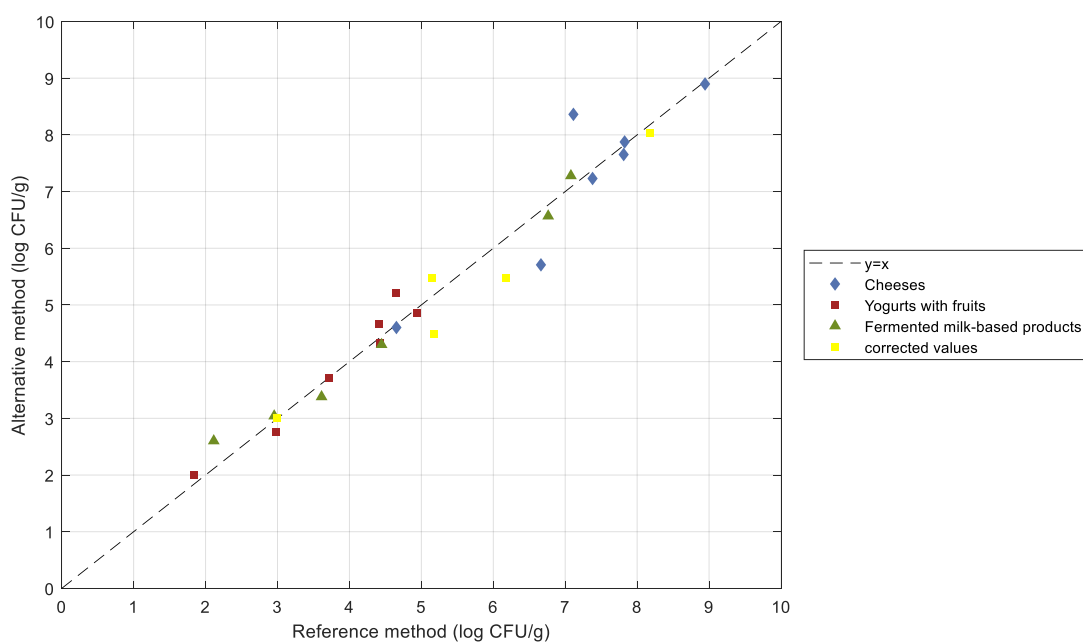
Year	Sample n°	Product (French name)	Product	Reference method: ISO 21527-1♦ Aw>0.95	Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C	Mean (ISO 21527-1/ CompactDry™ YMR)	Difference	Category	Type
2023	3308	Salade de pâtes au surimi et ciboulette	Pasta salad with surimi and chives	8.15	8.23	8.19	0.08	2	a
2023	3309	Sandwich rosette et cornichon (pain de mie complet)	Sandwich with delicatessen and pickles	6.67	6.87	6.77	0.20	2	a
2023	3310	Sandwich poulet rôti mayonnaise, pain moelleux farine complète	Sandwich with chicken meat and mayonnaise	6.97	7.00	6.98	0.03	2	a
2023	4057	Sandwich thon salade	Sandwich with tuna and salad	6.56	6.49	6.52	-0.06	2	a
2023	5331	Mousse au chocolat noir 70%	Chocolate mousse (cocoa 70%)	2.60	3.11	2.86	0.51	2	a
2023	5332	Salade tartare lasagnettes au surimi	Pasta salad with surimi	3.11	3.18	3.15	0.06	2	a
2023	3555	Macédoine de légumes, pois doux, haricots verts, carottes, navet	Vegetable salad with mayonnaise	4.88	4.93	4.90	0.05	2	b
2023	3556	Piémontaise jambon tomates fraîches	Piemontaise salad	3.99	4.11	4.05	0.13	2	b
2023	4820	Piémontaise	Piemontaise salad	5.20	5.15	5.18	-0.06	2	b
2023	4821	Piémontaise au jambon	Piemontaise salad with ham	2.66	2.38	2.52	-0.28	2	b
2023	4822	Piémontaise au jambon	Piemontaise salad	2.85	2.56	2.70	-0.29	2	b
2023	4832	Riz au crabe avec mayonnaise	Rice salad with mayonnaise and crab	4.62	4.71	4.67	0.08	2	b
2023	4833	Macédoine avec mayonnaise	Vegetables salad with mayonnaise	3.79	3.62	3.70	-0.16	2	b
2023	4834	Coquille de crabe, crudités, mayonnaise	Vegetables salad with mayonnaise and crab	4.08	4.18	4.13	0.10	2	b
2023	3549	Mayonnaise	Mayonnaise	2.95	3.15	3.05	0.20	2	c
2023	5333	Ketchup français nature	Ketchup	3.18	2.96	3.07	-0.22	2	c
2023	5335	Mayonnaise classique à l'huile de colza	Mayonnaise	3.90	3.88	3.89	-0.02	2	c
2023	5337	Sauce Béarnaise	Bearnaise sauce	3.40	2.78	3.09	-0.62	2	c
2023	5338	Sauce aïoli	Garlic mayonnaise	2.91	2.56	2.74	-0.36	2	c
2023	3299	Champignons émincés à la crème	Sliced mushrooms	3.72	3.67	3.70	-0.05	3	a
2023	3300	Mélange de crudités choux radis carotte	Sliced cabbage and radish	3.83	4.49	4.16	0.67	3	a

Year	Sample n°	Product (French name)	Product	Reference method: ISO 21527-1♦ Aw>0.95	Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C	Mean (ISO 21527-1/ CompactDry™ YMR)	Difference	Category	Type
2023	3301	Salade de fruits ananas, pommes, raisin	Cut fruits (apple, pineapple and grape)	8.04	7.98	8.01	-0.06	3	a
2023	3302	Melon en cube	Sliced cantaloupe	7.36	8.18	7.77	0.81	3	a
2023	3303	Pastèque en morceaux	Sliced watermelon	7.59	7.46	7.53	-0.13	3	a
2023	4054	Purée de vanille avec morceaux de pommes	Apple purée with vanilla	4.40	3.34	3.87	-1.06	3	a
2023	5346	Salade de fruits	Cut fruits salad	2.86	2.75	2.81	-0.12	3	a
2023	3551	Pur jus de carotte	Carrot juice	2.18	1.85	2.01	-0.33	3	b
2023	3552	Pur jus d'orange	Orange juice	2.56	2.62	2.59	0.07	3	b
2023	3553	Pur jus de tomates	Tomato juice	3.87	3.75	3.81	-0.12	3	b
2023	4828	100% pur jus pomme	Apple juice	3.66	3.26	3.46	-0.41	3	b
2023	4829	Jus de pomme	Apple juice	3.46	4.08	3.77	0.62	3	b
2023	3062	Légumes fermentés carotte ciboulette	Fermented vegetables (carrot and chives)	3.34	3.40	3.37	0.06	3	c
2023	3063	Légumes fermentés kimchi doux	Fermented vegetables (kimchi)	6.67	6.43	6.55	-0.24	3	c
2023	3064	Légumes fermentés betterave aux baies de goji	Fermented vegetables (beetroot)	4.96	3.75	4.36	-1.22	3	c
2023	3065	Légumes fermentés choux rouge thym	Fermented vegetables (red cabbage)	7.11	7.18	7.15	0.06	3	c
2023	3312	Olives vertes à la Grecque	Fermented green olives	7.93	8.08	8.00	0.15	3	c
2023	5342	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	7.52	7.53	7.52	0.01	3	c
2023	5343	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	6.41	6.45	6.43	0.03	3	c
2023	5344	Patate coupée en lamelle cuite	Sliced pre-cooked potatoes	6.96	6.91	6.94	-0.05	3	c
2023	3054	Tarte aux pommes	Apple pie	2.04	2.26	2.15	0.21	4	a
2023	4047	Eclair au chocolat	Pastry (Chocolate Eclair)	2.61	2.18	2.39	-0.44	4	a
2023	4048	Chou à la chantilly	Pastry, whipped cream puffs	3.46	3.45	3.45	-0.02	4	a
2023	4049	Religieuse café	Pastry	3.00	2.65	2.83	-0.35	4	a
2023	4465	Tarte aux nectarines	Pastry with nectarines	2.72	2.98	2.85	0.27	4	a
2023	4466	Tarte aux fraises	Pastry with strawberries	3.93	3.92	3.93	-0.02	4	a
2023	5345	Pâtisserie avec fruits	Pastry with fruits	6.72	6.41	6.57	-0.31	4	a
2023	4069	Jaune d'œuf liquide	Pasteurised liquid egg yolk	6.08	6.54	6.31	0.46	4	b

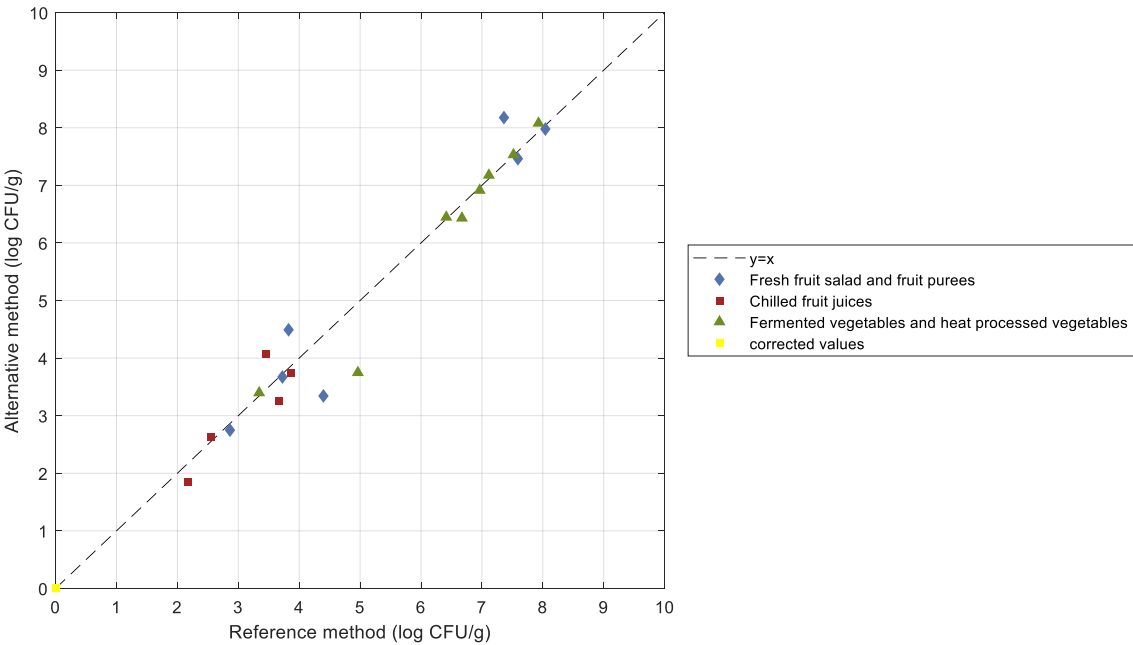
Year	Sample n°	Product (French name)	Product	Reference method: ISO 21527-1♦ Aw>0.95	Alternative method: CompactDry™ YMR - 69 h at 25 ± 1°C	Mean (ISO 21527-1/ CompactDry™ YMR)	Difference	Category	Type
2023	4070	Jaune d'œuf liquide	Pasteurised liquid egg yolk	3.90	3.75	3.82	-0.15	4	b
2023	4826	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	4.95	4.82	4.89	-0.13	4	b
2023	4827	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	4.26	4.11	4.18	-0.14	4	b
2023	5339	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	2.83	3.00	2.91	0.17	4	b
2023	5340	Œuf entier liquide pasteurisé	Pasteurised whole liquid egg	4.18	3.96	4.07	-0.22	4	b
2023	5341	Jaune d'œuf liquide pasteurisé	Pasteurised liquid egg yolk	4.66	4.23	4.45	-0.43	4	b
2023	3067	Quiche lorraine	Quiche	7.04	7.08	7.06	0.04	4	c
2023	4046	Pâte feuilletée	Raw dough (puff pastry)	2.32	1.60	1.96	-0.72	4	c
2023	4056	Pâte brisée	Raw dough	4.84	4.88	4.86	0.04	4	c
2023	4059	Pâte à pizza fine et ronde	Raw dough for pizza	3.60	4.23	3.92	0.63	4	c
2023	4467	Quiche saumon	Salmon quiche	3.69	3.20	3.45	-0.49	4	c
2023	4468	Quiche broccolis chèvre	Quiche with broccoli and cheese	2.64	2.52	2.58	-0.12	4	c
2023	4469	Quiche aux poireaux	Quiche with leeks	2.40	1.70	2.05	-0.70	4	c
2023	4470	Quiche tomates	Quiche with tomatoes	2.38	2.04	2.21	-0.34	4	c
2023	3294	Poitrine cuite nature	Cooked delicatessen pork meat	7.18	7.70	7.44	0.52	5	a
2023	3295	Saucisson à l'ail à l'ancienne	Cooked delicatessen (sausage with garlic)	8.28	8.23	8.25	-0.05	5	a
2023	3296	Jambon rôti avec herbes	Cooked roasted ham with aromatic herbs	7.74	7.72	7.73	-0.02	5	a
2023	3297	Jambon AC	Cooked ham	8.15	8.20	8.18	0.06	5	a
2023	3298	Roti de porc cuit supérieur	Cooked and RTE pork meat	7.99	8.04	8.01	0.05	5	a
2023	3438	Dés de poulet	RTE poultry meat	3.95	4.04	4.00	0.09	5	b
2023	3439	Lardons de volaille cuite	RTE poultry meat	6.53	6.41	6.47	-0.12	5	b
2023	3440	Emincés de poulet roti	Sliced RTR roasted chicken meat	4.56	4.60	4.58	0.05	5	b
2023	4052	Emincés de poulet rôti	Sliced roasted chicken meat	6.18	6.59	6.38	0.41	5	b
2023	4831	Blanc de dinde en tranche	Sliced RTE poultry meat	2.65	2.75	2.70	0.09	5	b
2023	4041	Truite fumée brisures	Smoked trout	4.46	4.08	4.27	-0.38	5	c
2023	4042	Tranchette de saumon fumé	Sliced smoked salmon	2.49	2.54	2.52	0.05	5	c
2023	4043	Filets de hareng fumé doux	Smoked herring	4.26	4.28	4.27	0.02	5	c
2023	4044	Thon tranché fumé	Sliced smoked tuna	2.89	2.87	2.88	-0.02	5	c
2023	4060	Filet de hareng fumé au naturel	Smoked herring	5.93	5.93	5.93	0.00	5	c

Appendix 7 - Relative trueness study: data plotted for each category

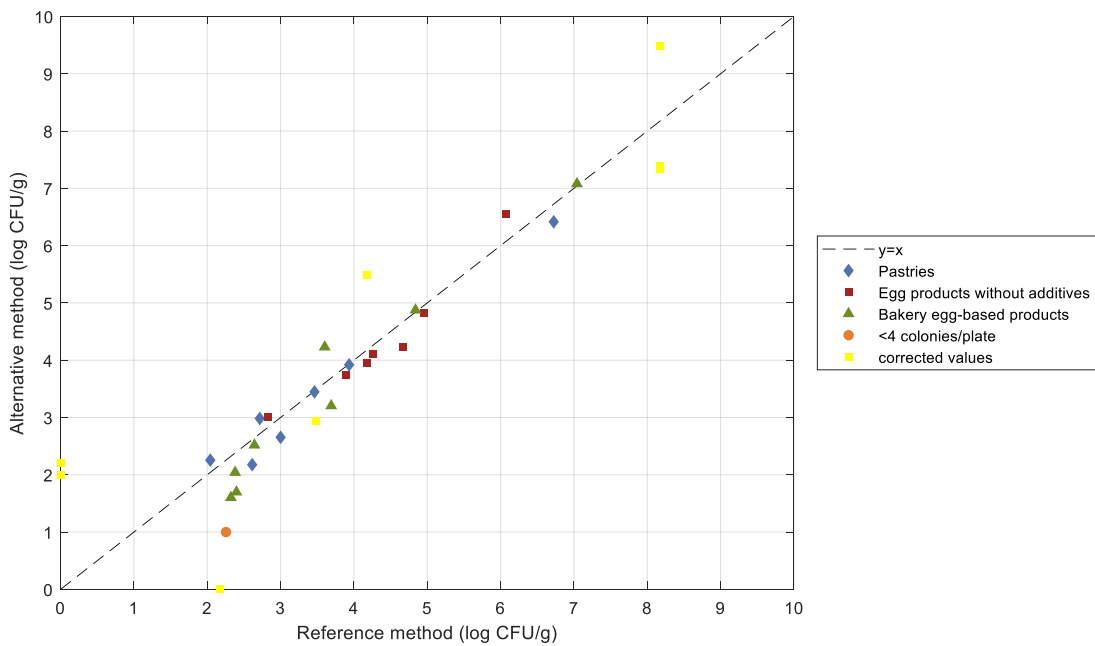
Dairy products

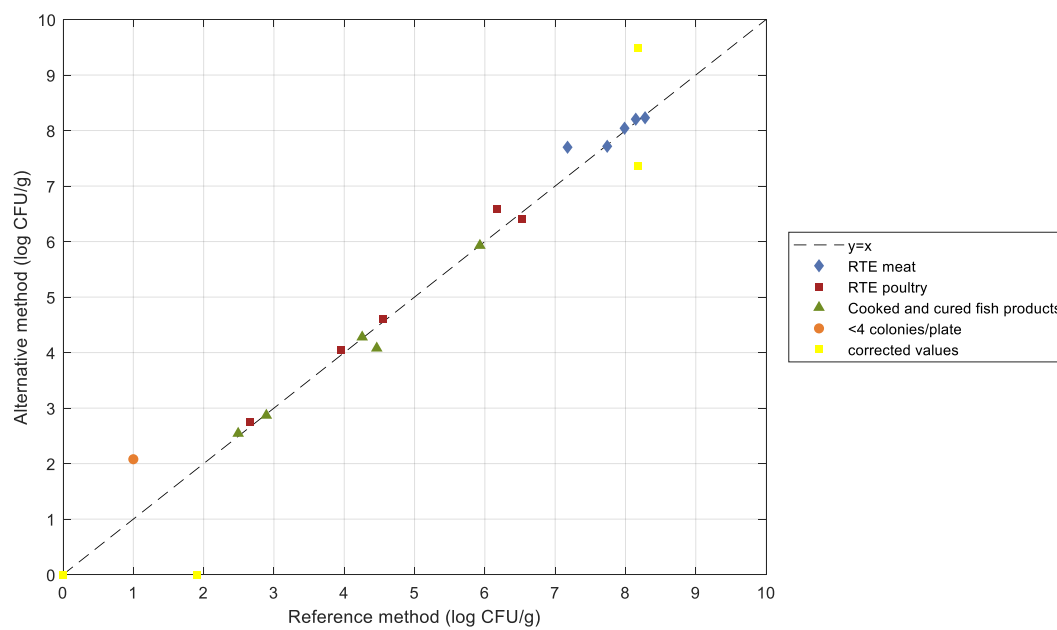


Fruits and vegetables



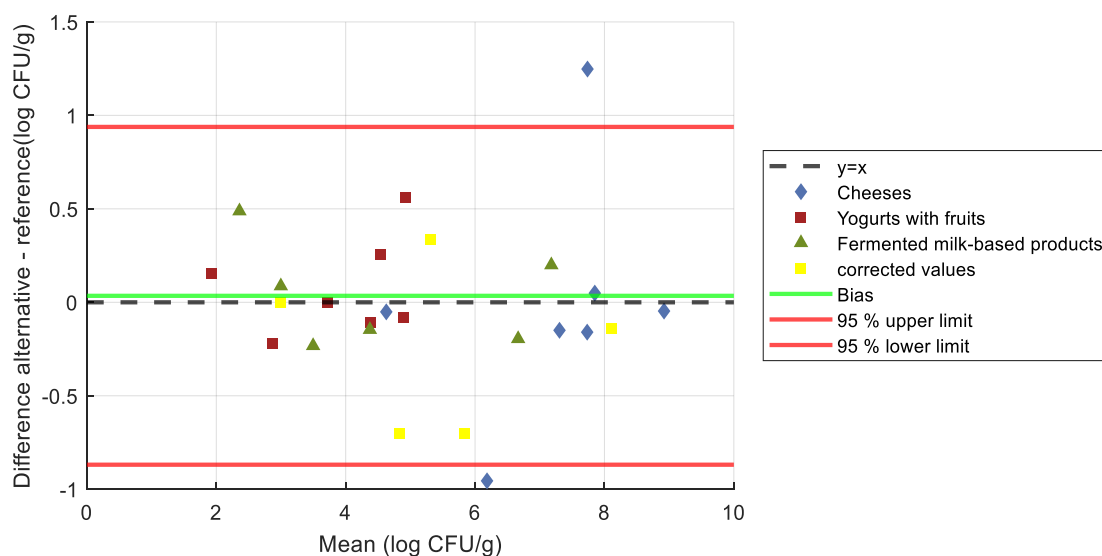
Bakery products



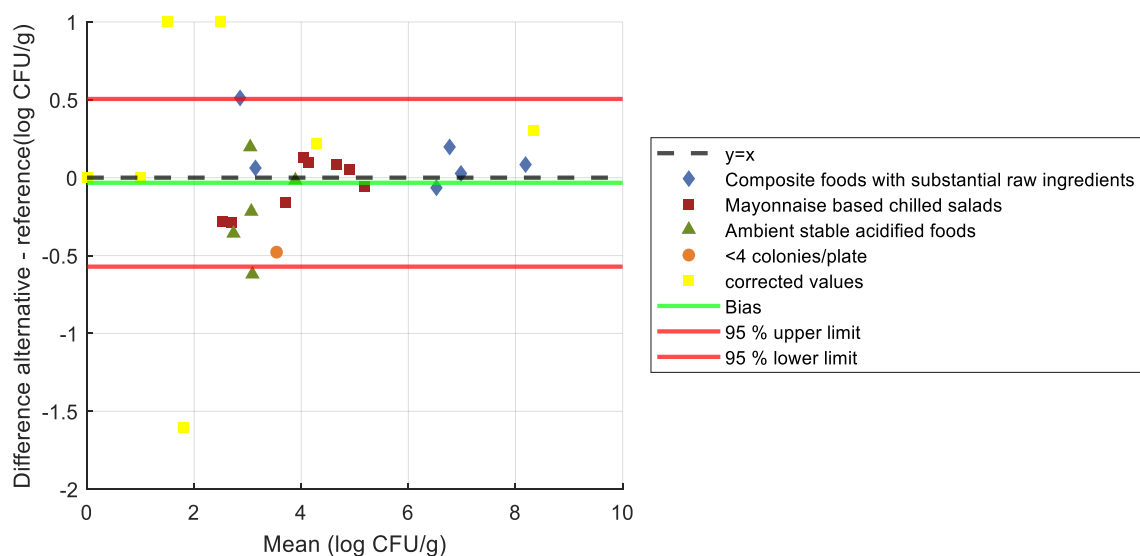
Ready-to-eat and ready-to-reheat foods

Appendix 8 - Relative trueness study: Bland-Altman difference plot for each category

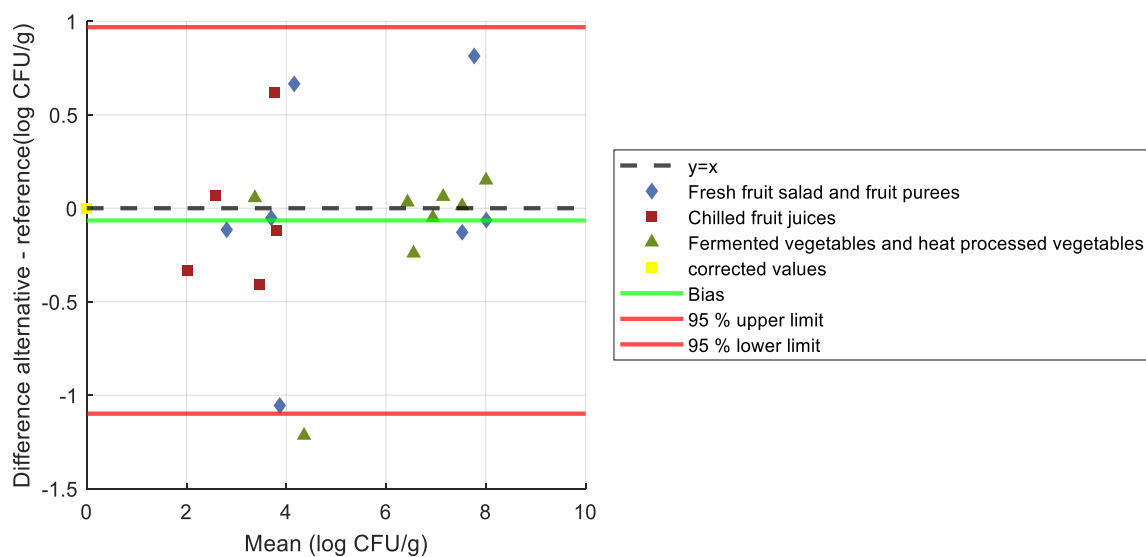
Dairy products



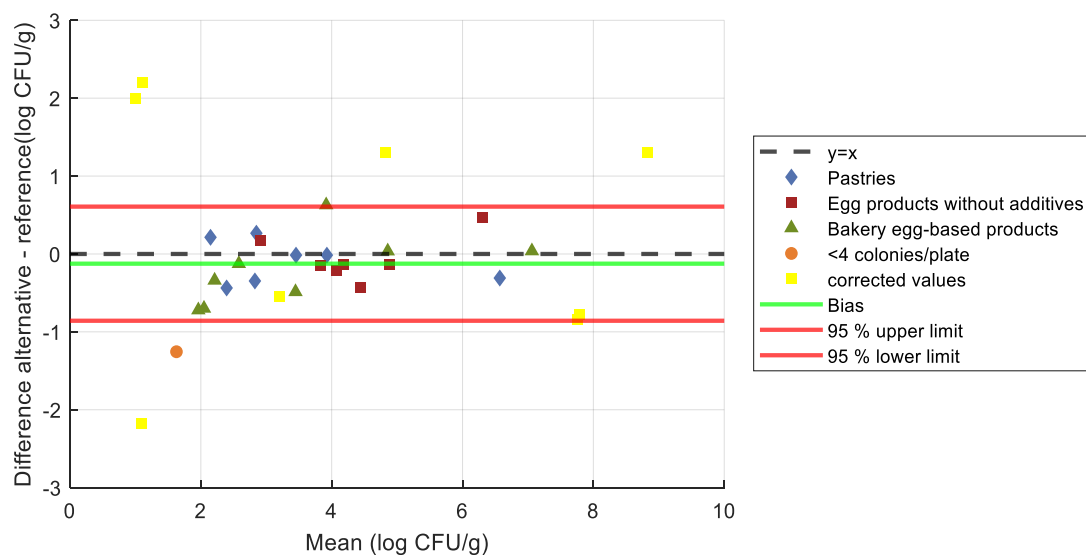
Multicomponent food



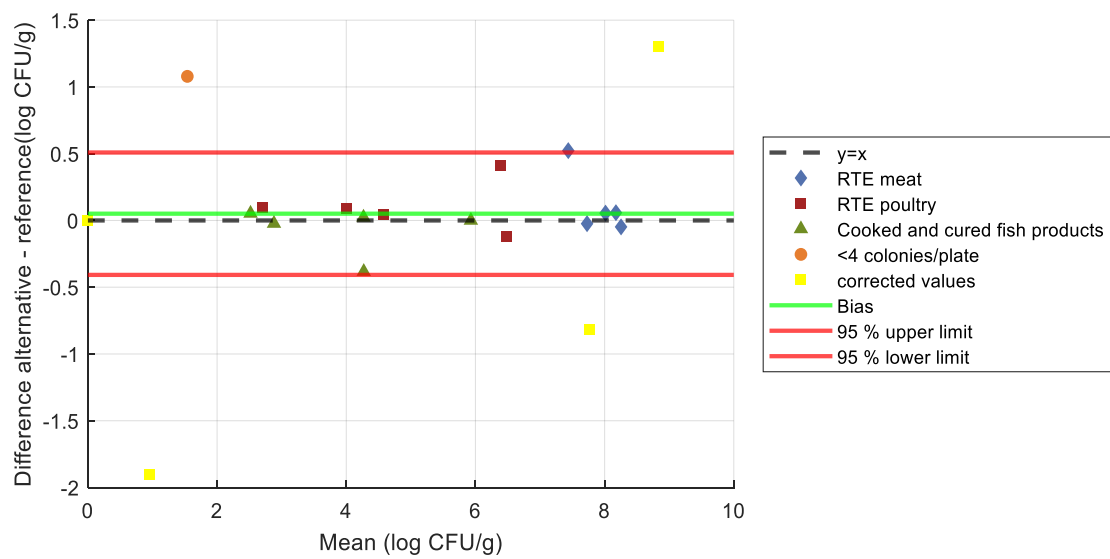
Fruits and vegetables



Bakery products



Ready-to-eat, ready-to-reheat food



Appendix 9 - Accuracy profile study: raw data

Matrix	Strain	Level	N° sample	Reference method: ISO 21527-1* (DRBC)				Alternative method: CompactDry™ YMR			
				Dilution	CFU/plate	CFU/g	log CFU/g	69 h at 25 ± 1°C			
								Dilution	CFU/plate	CFU/g	log CFU/g
Cream cheese Batch 1 Aerobic mesophilic flora: 2 x 10 ¹ CFU/g Aw= 0.9952	<i>Saccharomyces cerevisiae</i> Ad999 (yeast)	1	3230	10	86	820	2.91	10	21	210	2.32
				100	4			100	2		
			3231	10	19	190	2.28	10	20	230	2.36
				100	2			100	5		
			3232	10	28	270	2.43	10	37	360	2.56
				100	2			100	2		
		2	3233	10	23	260	2.41	10	31	290	2.46
				100	5			100	1		
			3234	10	24	270	2.43	10	24	260	2.41
				100	6			100	4		
			3235	100	82	8000	3.90	100	87	8700	3.94
				1000	6			1000	9		
			3236	100	87	8500	3.93	100	85	8500	3.93
				1000	7			1000	9		
			3237	100	129	12000	4.08	100	91	9400	3.97
				1000	7			1000	12		
			3238	100	93	9200	3.96	100	91	8700	3.94
				1000	8			1000	5		
		3	3239	100	127	12000	4.08	100	84	8700	3.94
				1000	6			1000	12		
			3240	1000	131	130000	5.11	1000	121	120000	5.08
				10000	8			10000	13		
			3241	1000	125	130000	5.11	1000	147	150000	5.18
				10000	17			10000	18		
			3242	1000	145	150000	5.18	1000	113	110000	5.04
				10000	16			10000	7		
			3243	1000	81	79000	4.90	1000	123	120000	5.08
				10000	6			10000	9		
			3244	1000	75	82000	4.91	1000	116	110000	5.04
				10000	15			10000	8		
Cream cheese Batch 2 Aerobic mesophilic flora: <10 CFU/g Aw= 0.9854	<i>Saccharomyces cerevisiae</i> Ad999 (yeast)	1	3245	10	31	300	2.48	10	26	260	2.41
				100	2			100	2		
			3246	10	22	220	2.34	10	34	320	2.51
				100	2			100	1		
			3247	10	46	440	2.64	10	39	370	2.57
				100	2			100	2		
		2	3248	10	24	270	2.43	10	34	330	2.52
				100	6			100	2		
			3249	10	18	160	2.20	10	31	280	2.45
				100	0			100	0		
			3250	100	69	7400	3.87	100	93	9400	3.97
				1000	12			1000	10		
			3251	100	93	9500	3.98	100	100	9700	3.99
				1000	12			1000	7		
			3252	100	75	7600	3.88	100	105	10000	4.00
				1000	9			1000	10		
			3253	100	118	11000	4.04	100	107	10000	4.00
				1000	7			1000	5		
		3	3254	100	74	8000	3.90	100	100	10000	4.00
				1000	14			1000	11		
			3255	1000	96	94000	4.97	1000	101	110000	5.04
				10000	7			10000	18		
			3256	1000	113	110000	5.04	1000	124	120000	5.08
				10000	11			10000	11		
			3257	1000	99	99000	5.00	1000	111	110000	5.04
				10000	10			10000	11		
			3258	1000	118	120000	5.08	1000	105	110000	5.04
				10000	16			10000	11		
			3259	1000	121	130000	5.11	1000	120	120000	5.08
				10000	20			10000	9		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix	Strain	Level	N° sample	Reference method: ISO 21527-1*				Alternative method: CompactDry™ YMR 69 h at 25 ± 1°C			
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g
Pasta salad Batch 1 Aerobic mesophilic flora: 1.3 x 10 ³ CFU/g Aw=0.9981	<i>Candida pseudotropicalis</i> Y2 (yeast)	1	3446	10	38	380	2.58	10	26	260	2.41
				100	0			100	3		
			3447	10	38	380	2.58	10	33	330	2.52
				100	4			100	3		
			3448	10	58	570	2.76	10	48	480	2.68
				100	5			100	5		
		2	3449	10	29	310	2.49	10	39	380	2.58
				100	5			100	3		
			3450	10	27	260	2.41	10	31	280	2.45
				100	1			100	0		
			3451	100	93	8900	3.95	100	88	8400	3.92
				1000	5			1000	4		
		2	3452	100	64	6500	3.81	100	69	6900	3.84
				1000	8			1000	7		
			3453	100	99	9600	3.98	100	91	8500	3.93
				1000	7			1000	3		
			3454	100	72	7100	3.85	100	69	7000	3.85
				1000	6			1000	8		
		3	3455	100	66	6700	3.83	100	92	9200	3.96
				1000	8			1000	9		
			3456	1000	25	28000	4.45	1000	62	61000	4.79
				10000	6			10000	5		
			3457	1000	59	59000	4.77	1000	68	65000	4.81
				10000	6			10000	3		
Pasta salad Batch 2 Aerobic mesophilic flora: 2.6 x 10 ³ CFU/g Aw= 1.0025	<i>Candida pseudotropicalis</i> Y2 (yeast)	1	3461	10	17	190	2.28	10	19	200	2.30
				100	4			100	3		
			3462	10	22	210	2.32	10	21	220	2.34
				100	1			100	3		
			3463	10	17	190	2.28	10	19	170	2.23
				100	4			100	0		
		2	3464	10	29	270	2.43	10	18	180	2.26
				100	1			100	2		
			3465	10	27	270	2.43	10	10	110	2.04
				100	3			100	2		
			3466	100	87	8600	3.93	100	54	5600	3.75
				1000	8			1000	8		
		2	3467	100	79	8000	3.90	100	66	6700	3.83
				1000	9			1000	8		
			3468	100	70	7100	3.85	100	91	8800	3.94
				1000	8			1000	6		
			3469	100	70	7000	3.85	100	73	7200	3.86
				1000	7			1000	6		
		3	3470	100	76	7500	3.88	100	73	7400	3.87
				1000	7			1000	8		
			3471	1000	69	66000	4.82	1000	76	77000	4.89
				10000	4			10000	9		
			3472	1000	76	73000	4.86	1000	71	71000	4.85
				10000	4			10000	7		
		3	3473	1000	60	64000	4.81	1000	70	67000	4.83
				10000	10			10000	4		
			3474	1000	68	66000	4.82	1000	56	58000	4.76
				10000	5			10000	8		
			3475	1000	79	76000	4.88	1000	67	65000	4.81
				10000	5			10000	5		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix	Strain	Level	N° sample	Reference method: ISO 21527-1*				Alternative method: CompactDry™ YMR 69 h at 25 ± 1°C			
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g
Fruit purée (mandarins) Batch 1 Aerobic mesophilic flora: <10 CFU/g Aw=0.9871	<i>Cryptococcus albidus</i> Ad2436 (yeast)	1	3357	10	34	340	2.53	10	40	430	2.63
				100	3			100	7		
			3358	10	44	460	2.66	10	57	580	2.76
				100	7			100	7		
			3359	10	44	450	2.65	10	45	480	2.68
				100	5			100	8		
			3360	10	45	430	2.63	10	48	500	2.70
				100	2			100	7		
			3361	10	33	310	2.49	10	39	390	2.59
				100	1			100	4		
		2	3362	100	160	15000	4.18	100	160	17000	4.23
				1000	10			1000	22		
			3363	100	165	17000	4.23	100	131	13000	4.11
				1000	20			1000	14		
			3364	1000	27	28000	4.45	100	144	15000	4.18
				10000	4			1000	16		
			3365	100	132	14000	4.15	100	197	20000	4.30
				1000	18			1000	19		
			3366	100	169	17000	4.23	1000	28	28000	4.45
				1000	16			10000	3		
		3	3367	1000	139	140000	5.15	1000	107	110000	5.04
				10000	10			10000	13		
			3368	1000	91	89000	4.95	1000	90	90000	4.95
				10000	7			10000	9		
			3369	1000	104	110000	5.04	1000	106	110000	5.04
				10000	14			10000	13		
			3370	1000	113	120000	5.08	1000	95	100000	5.00
				10000	19			10000	15		
			3371	1000	60	65000	4.81	1000	76	76000	4.88
				10000	11			10000	8		
Fruit purée (mandarins) Batch 2 Aerobic mesophilic flora: <10 CFU/g Aw= 0.9897	<i>Cryptococcus albidus</i> Ad2436 (yeast)	1	3372	10	47	460	2.66	10	42	430	2.63
				100	3			100	5		
			3373	10	42	410	2.61	10	45	450	2.65
				100	3			100	4		
			3374	10	43	430	2.63	10	44	440	2.64
				100	4			100	4		
			3375	10	41	420	2.62	10	37	360	2.56
				100	5			100	3		
			3376	10	46	430	2.63	10	38	370	2.57
				100	1			100	3		
		2	3377	1000	22	21000	4.32	100	157	15000	4.18
				10000	1			1000	12		
			3378	100	171	17000	4.23	100	168	17000	4.23
				1000	18			1000	16		
			3379	100	151	16000	4.20	100	142	15000	4.18
				1000	23			1000	19		
			3380	100	102	10000	4.00	100	141	14000	4.15
				1000	8			1000	13		
			3381	100	133	14000	4.15	100	114	11000	4.04
				1000	22			1000	12		
		3	3382	1000	90	88000	4.94	1000	82	83000	4.92
				10000	7			10000	9		
			3383	1000	76	81000	4.91	1000	70	71000	4.85
				10000	13			10000	8		
			3384	1000	76	79000	4.90	1000	72	80000	4.90
				10000	11			10000	16		
			3385	1000	116	110000	5.04	1000	73	71000	4.85
				10000	9			10000	5		
			3386	1000	107	100000	5.00	1000	90	90000	4.95
				10000	6			10000	9		

White colonies at 48h

Blue colonies at 72h

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

ADRIA

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10 July 2025

Summary report (Version 0)

CompactDry YMR

Matrix	Strain	Level	N° sample	Reference method: ISO 21527-1*				Alternative method: CompactDry™ YMR			
								69 h at 25 ± 1°C			
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g
Egg custard tart Batch 1 Aerobic mesophilic flora: 2.4 x 10 ² CFU/g Aw=0.9506	<i>Penicillium brevicompactum</i> Ad2431 (mold)	1	3587	10	42	460	2.66	10	29	280	2.45
				100	8			100	2		
			3588	10	49	470	2.67	10	41	430	2.63
				100	3			100	6		
			3589	10	66	650	2.81	10	32	340	2.53
				100	5			100	5		
		2	3590	10	49	470	2.67	10	33	330	2.52
				100	3			100	3		
			3591	10	45	450	2.65	10	42	420	2.62
				100	4			100	4		
			3592	100	146	14000	4.15	100	85	8900	3.95
				1000	13			1000	13		
		3	3593	100	161	16000	4.20	100	87	8400	3.92
				1000	16			1000	5		
			3594	100	174	17000	4.23	100	77	7800	3.89
				1000	15			1000	9		
			3595	100	153	15000	4.18	100	81	8900	3.95
				1000	15			1000	17		
		3	3596	100	111	11000	4.04	100	71	7600	3.88
				1000	13			1000	13		
			3597	1000	173	170000	5.23	1000	82	88000	4.94
				10000	11			10000	15		
			3598	1000	131	130000	5.11	1000	80	81000	4.91
				10000	13			10000	9		
		3	3599	1000	136	140000	5.15	1000	85	87000	4.94
				10000	17			10000	11		
			3600	1000	173	170000	5.23	1000	93	96000	4.98
				10000	14			10000	13		
			3601	1000	178	180000	5.26	1000	78	81000	4.91
				10000	18			10000	11		
Egg custard tart Batch 2 Aerobic mesophilic flora: 5.3 x 10 ² CFU/g Aw=0.9623	<i>Penicillium brevicompactum</i> Ad2431 (mold)	1	3602	10	59	590	2.77	10	32	320	2.51
				100	6			100	3		
			3603	10	47	500	2.70	10	46	460	2.66
				100	8			100	4		
			3604	10	53	510	2.71	10	51	520	2.72
				100	3			100	6		
		2	3605	10	54	530	2.72	10	42	380	2.58
				100	4			100	0		
			3606	10	64	630	2.80	10	41	390	2.59
				100	5			100	2		
			3607	100	153	15000	4.18	100	69	7500	3.88
				1000	13			1000	13		
		3	3608	100	169	17000	4.23	100	60	6600	3.82
				1000	19			1000	13		
			3609	100	101	9500	3.98	100	78	8500	3.93
				1000	3			1000	16		
			3610	100	120	12000	4.08	100	70	7700	3.89
				1000	14			1000	15		
		3	3611	100	110	11000	4.04	100	104	9800	3.99
				1000	10			1000	4		
			3612	1000	128	130000	5.11	1000	102	110000	5.04
				10000	19			10000	17		
			3613	1000	96	100000	5.00	1000	75	82000	4.91
				10000	16			10000	15		
		3	3614	1000	1113	100000	5.00	1000	72	76000	4.88
				10000	11			10000	12		
			3615	1000	128	130000	5.11	1000	72	80000	4.90
				10000	19			10000	16		
			3616	10000	21	210000	5.32	1000	84	91000	4.96
				100000	2			10000	16		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix	Strain	Level	N° sample	Reference method: ISO 21527-1*				Alternative method: CompactDry™ YMR			
				Dilution	CFU/plate	CFU/g	log CFU/g	69 h at 25 ± 1°C			
								Dilution	CFU/plate	CFU/g	log CFU/g
Salmon and smoked salmon terrine Batch 1 Aerobic mesophilic flora: <10 CFU/g Aw= 0.9915	Saracladium kilense Ad2931 (mold)	1	3957	10	46	450	2.65	10	56	540	2.73
				100	3			100	3		
			3958	10	56	550	2.74	10	46	470	2.67
				100	4			100	6		
			3959	10	37	410	2.61	10	53	540	2.73
				100	8			100	6		
		2	3960	10	44	440	2.64	10	57	540	2.73
				100	12			100	2		
			3961	10	30	290	2.46	10	49	490	2.69
				100	2			100	5		
			3962	100	134	13000	4.11	100	143	14000	4.15
				1000	14			1000	11		
		3	3963	100	149	15000	4.18	100	187	19000	4.28
				1000	18			1000	23		
			3964	100	151	15000	4.18	100	127	13000	4.11
				1000	36			1000	21		
			3965	100	131	13000	4.11	100	137	14000	4.15
				1000	16			1000	21		
Salmon terrine with aneth Batch 2 Aerobic mesophilic flora: <10 CFU/g Aw= 0.9880	Saracladium kilense Ad2931 (mold)	1	3966	100	115	12000	4.08	100	124	13000	4.11
				1000	15			1000	14		
			3967	1000	149	150000	5.18	1000	151	150000	5.18
				10000	11			10000	11		
			3968	1000	162	150000	5.18	1000	190	190000	5.28
				10000	8			10000	17		
		2	3969	1000	109	110000	5.04	1000	190	200000	5.30
				10000	13			10000	27		
			3970	1000	159	160000	5.20	1000	187	180000	5.26
				10000	20			10000	11		
			3971	1000	154	160000	5.20	1000	163	160000	5.20
				10000	17			10000	16		
		3	3972	10	50	510	2.71	10	52	530	2.72
				100	6			100	6		
			3973	10	48	460	2.66	10	62	610	2.79
				100	2			100	5		
			3974	10	41	430	2.63	10	44	450	2.65
				100	6			100	5		
		1	3975	10	29	320	2.51	10	71	710	2.85
				100	6			100	7		
			3976	10	52	480	2.68	10	53	510	2.71
				100	1			100	3		
		2	3977	1000	19	18000	4.26	100	170	17000	4.23
				10000	1			1000	21		
			3978	1000	23	23000	4.36	100	168	17000	4.23
				10000	3			1000	24		
			3979	1000	23	24000	4.38	100	125	13000	4.11
				10000	3			1000	17		
		3	3980	1000	22	21000	4.32	100	126	13000	4.11
				10000	1			1000	12		
			3981	100	138	13000	4.11	100	136	14000	4.15
				1000	10			1000	16		
			3982	10000	16	160000	5.20	1000	158	170000	5.23
				100000	2			10000	28		
		2	3983	10000	17	170000	5.23	1000	174	170000	5.23
				100000	2			10000	18		
			3984	10000	17	150000	5.18	1000	161	160000	5.20
				100000	0			10000	15		
			3985	1000	136	140000	5.15	1000	170	170000	5.23
				10000	14			10000	21		
		3	3986	10000	17	180000	5.26	1000	172	170000	5.23
				100000	3			10000	20		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

ADRIA

58/71

10 July 2025

Summary report (Version 0)

CompactDry YMR

Appendix 10 - Accuracy profile study: summarized results

(Food) Category 1			Dairy product									
(Food) Type 1			Cream cheese									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
3230-3234	Cream cheese	low	820	190	270	260	270	210	230	360	290	260
3245-3249	Cream cheese	low	300	220	440	270	160	260	320	370	330	280
3235-3239	Cream cheese	intermediate	8000	8500	12000	9000	12000	8700	8500	9400	8700	8700
3250-3254	Cream cheese	intermediate	7400	9500	7600	11000	8000	9400	9700	10000	10000	10000
3240-3244	Cream cheese	high	130000	130000	150000	79000	82000	120000	150000	110000	120000	110000
3255-3259	Cream cheese	high	94000	110000	99000	120000	130000	110000	120000	110000	110000	120000
(Food) Category 3			Fruits and vegetables									
(Food) Type 3			Fruit purée (mandarins)									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
3357-3361	Fruit purée	low	340	460	450	430	310	430	580	480	500	390
3372-3376	Fruit purée	low	460	410	430	420	430	430	450	440	360	370
3362-3366	Fruit purée	intermediate	15000	17000	28000	14000	17000	17000	13000	15000	20000	28000
3377-3381	Fruit purée	intermediate	21000	17000	16000	10000	14000	15000	17000	15000	14000	11000
3367-3371	Fruit purée	high	140000	89000	110000	120000	65000	110000	90000	110000	100000	76000
3382-3386	Fruit purée	high	88000	81000	79000	110000	100000	83000	71000	80000	71000	90000
(Food) Category 5			Ready- to -eat, ready- to -reheat foods									
(Food) Type 5			Fish terrine									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
3957-3961	Fish terrine	low	450	550	410	440	290	540	470	540	540	490
3972-3976	Fish terrine	low	510	460	430	320	480	530	610	450	710	510
3962-3966	Fish terrine	intermediate	13000	15000	15000	13000	12000	14000	19000	13000	14000	13000
3977-3981	Fish terrine	intermediate	18000	23000	24000	21000	13000	17000	17000	13000	13000	14000
3967-3971	Fish terrine	high	150000	150000	110000	160000	160000	150000	190000	200000	180000	160000
3982-3986	Fish terrine	high	160000	170000	150000	140000	180000	170000	170000	160000	170000	170000

(Food) Category 2			Multicomponent foods									
(Food) Type 2			Pasta salad									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
3446-3450	Pasta salad	low	380	380	570	310	260	260	330	480	380	280
3461-3465	Pasta salad	low	190	210	190	270	270	200	220	170	180	110
3451-3455	Pasta salad	intermediate	8900	6500	9600	7100	6700	8400	6900	8500	7000	9200
3466-3470	Pasta salad	intermediate	8600	8000	7100	7000	7500	5600	6700	8800	7200	7400
3456-3460	Pasta salad	high	28000	59000	45000	65000	45000	61000	65000	55000	60000	65000
3471-3475	Pasta salad	high	66000	73000	64000	66000	76000	77000	71000	67000	58000	65000
(Food) Category 4			Bakery products									
(Food) Type 4			Egg custard tart									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
3587-3591	Egg custard tart	low	400	470	650	470	450	280	430	340	330	420
3602-3606	Egg custard tart	low	590	500	510	530	630	320	460	520	380	390
3592-3596	Egg custard tart	intermediate	14000	16000	17000	15000	11000	8900	8400	7800	8900	7600
3607-3611	Egg custard tart	intermediate	15000	17000	9500	12000	11000	7500	6600	8500	7700	9800
3597-3601	Egg custard tart	high	170000	130000	140000	170000	180000	88000	81000	87000	96000	81000
3612-3616	Egg custard tart	high	130000	100000	100000	13000	210000	110000	82000	76000	80000	91000

Appendix 11 – Inclusivity / Exclusivity: raw data

INCLUSIVITY (Yeasts)															
N°	Genus	Species	Strain reference	Origin	Non-selective media			ISO 21527-1			CompactDry™ YMR				
											69h at 25 ± 1°C			log CD YMR- log 21527-1	Comment
					Dilution	CFU/plate	Result	Dilution	CFU/plate	Result	Dilution	CFU/plate	Result		
1.	Candida	kefir	Ad1056	Fruit	-5	126	1.30E+07	-5	113	1.10E+07	-5	105	1.10E+07	0.00	Blue colonies
2.	Candida	sake	Ad2735	Carrots	-5	77	7.70E+06	-5	23	2.30E+06	-5	62	6.20E+06	0.43	Blue colonies
3.	Candida	tropicalis	Ad1157	Dairy product	-5	75	7.50E+06	-5	88	8.80E+06	-5	73	7.30E+06	-0.08	Blue colonies
4.	Candida	zeylanoides	Ad2241	Environmental	-5	38	3.80E+06	-5	29	2.90E+06	-5	29	2.90E+06	0.00	Cream/Grey colonies
5.	Cryptococcus	liquefaciens	Ad1041	Environment	-4	76	7.60E+05	-4	76	7.60E+05	-4	51	5.10E+05	-0.17	Blue colonies
6.	Cryptococcus	magnus	Ad1040	Environment	-4	18	7.60E+05	-4	14	1.40E+05	-4	22	2.20E+05	0.20	Blue colonies
7.	Debaryomyces	castellii	CLIB 424	Environment	-5	51	5.10E+06	-5	58	5.80E+06	-5	54	5.40E+06	-0.03	Blue colonies
8.	Geotrichum	candidum	Ad2824	Dairy product	-4	22	2.20E+05	-4	20	2.00E+05	-4	12	1.20E+05	-0.22	Blue colonies
9.	Hanseniaspora	uvarum	CLIB 303	Wine	-6	29	2.90E+07	-6	26	2.60E+07	-5	104	1.00E+07	-0.41	Blue colonies
10.	Hansenula	anomala	380	Beer	-4	17	1.70E+05	-4	24	2.40E+05	-4	19	1.90E+05	-0.10	Blue colonies
11.	Kazachstania	barnetti	Ad2758	Vegetable product	-5	53	5.30E+06	-5	26	2.60E+06	-4	155	1.60E+06	-0.21	Blue colonies
12.	Kazachstania	exigua	Ad3420	Fermented vegetables	-6	32	3.20E+07	-6	24	2.40E+07	-6	22	2.20E+07	-0.04	Blue colonies
13.	Kloeckera	apiculata	204	Cider	-5	183	1.80E+07	-5	168	1.70E+07	-5	129	1.30E+07	-0.12	Blue colonies
14.	Kluyveromyces	lactis var. lactis	CLIB 196	Dairy	-5	27	2.70E+06	-4	113	1.10E+06	-4	73	7.30E+05	-0.18	Blue colonies
15.	Kluyveromyces	marxianus	CLIB 720	Dairy	-5	174	1.70E+06	-5	92	9.20E+06	-5	118	1.20E+07	0.12	Blue colonies
16.	Metschenikowia	pulcherrina	CLIB 403	Fruit	-5	51	5.10E+06	-5	49	4.90E+06	-5	43	4.30E+06	-0.06	Blue colonies
17.	Pichia	delftensis	CLIB 291	Cider brewery	-4	156	1.60E+05	-4	149	1.50E+06	-4	73	7.30E+05	-0.31	Blue colonies
18.	Rhodotorula	graminis	Ad1032	Environment	-5	47	4.70E+06	-5	14	1.40E+06	-5	25	2.50E+06	0.25	Blue colonies
19.	Rhodotorula	mucilaginosa	Ad2233	Beverage factory environment	-4	61	6.10E+05	-4	29	2.90E+05	-4	43	4.30E+05	0.17	Blue colonies
20.	Rhodotorula	slooffiae	A1031	Environment	-4	137	1.40E+05	-4	93	9.30E+05	-1	0	<1.0E+4	>-4.97	/
21.	Saccharomyces	bayanus	CLIB 181	Brewery	-5	151	1.50E+07	-5	69	6.90E+06	-5	85	8.50E+06	0.09	Blue colonies
22.	Saccharomyces	cerevisiae	Ad998	Dairy product	-6	20	2.00E+07	-6	35	3.50E+07	-6	27	2.70E+07	-0.11	Blue colonies
23.	Saccharomyces	rouxii	Ad2058	Salad	-6	25	2.50E+07	-6	28	2.80E+07	-1	0	<1.0E+4	>-6.44	/
24.	Saccharomycopsis	vini	CLIB 7	Oenology	-3	106	1.10E+05	-3	52	5.20E+04	-11	0	<1.0E+3	>-4.72	/
25.	Torulaspora	delbrueckii	CLIB 230	Food	-5	145	1.50E+07	-5	103	1.00E+07	-5	182	1.80E+07	0.26	Blue colonies
26.	Wicherhamomyces	onychis	Ad3422	Onions	-5	64	6.40E+06	-5	79	7.90E+06	-5	42	4.20E+06	-0.27	Blue colonies
27.	Yarrowia	lipolytica	CLIB 183	Food	-5	66	6.60E+06	-5	73	7.30E+06	-5	31	3.10E+06	-0.37	Blue domed colonies

INCLUSIVITY (Mold)															
N°	Genus	Species	Strain reference	Origin	Non-selective media			ISO 21527-1			CompactDry™ YMR				
					Dilution	CFU/plate	Result	Dilution	CFU/plate	Result	69 h at 25 ± 1°C			log CD YMR-log 21527-1	Comment
											Dilution	CFU/plate	Result		
1.	<i>Acremonium</i>	<i>sp.</i>	Ad 2926	Spirulin	-3	138	1.40E+05	-3	60	6.00E+04	-3	89	8.90E+04	0.17	Little and big colonies
2.	<i>Aspergillus</i>	<i>candidus</i>	Ad1744	Pastry/Bakery	-3	46	4.60E+04	-3	31	3.10E+04	-3	32	3.20E+04	0.01	White and spreaded colonies
3.	<i>Aspergillus</i>	<i>fumigatus</i>	Adria 1053	Environment	-3	70	7.00E+04	-3	77	7.70E+04	-3	30	3.00E+04	-0.41	Blue colonies
4.	<i>Aspergillus</i>	<i>versicolor</i>	Ad1112	Environment	-2	156	1.60E+04	-2	92	9.20E+03	-2	31	3.10E+03	-0.47	Blue colonies
5.	<i>Byssochlamys</i>	<i>fulva</i>	DSM 62097	Apple juice	-4	66	6.60E+05	-3	63	6.30E+04	-3	88	8.80E+04	0.15	Blue colonies
6.	<i>Byssochlamys</i>	<i>nivea</i>	Ad1309	Dairy product	-2	18	1.80E+03	-2	17	1.70E+03	-2	6	6.00E+02	-0.45	Blue and little colonies
7.	<i>Cladosporium</i>	<i>cladosporioides</i>	M8	Cereals	-4	102	1.00E+06	-4	73	7.30E+05	-4	44	4.40E+05	-0.22	Blue colonies
8.	<i>Eupenicillium</i>	<i>baarmensee</i>	DSM 1666	Environment (soil)	-2	8	8.00E+02	-2	6	6.00E+02	-2	12	1.20E+03	0.30	Blue colonies
9.	<i>Eurotium</i>	<i>herbariorum</i>	Ad413	Unknown	-3	42	4.20E+04	-3	34	3.40E+04	-3	30	3.00E+04	-0.05	Blue and green colonies
10.	<i>Fusarium</i>	<i>oxysporum</i>	Ad2060	Unknown	-6	106	1.06E+08	-6	152	1.52E+08	-6	58	5.80E+07	-0.42	White and grey colonies
11.	<i>Fusarium</i>	<i>solani</i>	Ad2240	Environment (fish)	-2	43	4.30E+03	-2	41	4.10E+03	-2	45	4.50E+03	0.04	Blue colonies with black center
12.	<i>Monascus</i>	<i>purpureus</i>	LMSA.01.026	Pastry/Bakery	-3	33	3.30E+04	-3	67	5.70E+04	-3	21	2.10E+04	-0.43	Red and purple colonies
13.	<i>Mucor</i>	<i>plumbeus</i>	M10	Food	-2	29	2.90E+03	-1	18	1.80E+02	-1	19	1.90E+02	0.02	Blue and hairy colonies
14.	<i>Mucor</i>	<i>racemosus</i>	M9	Food	-3	8	8.00E+03	-3	4	4.00E+03	-3	16	1.60E+04	0.60	Hairy and spreaded colonies
15.	<i>Neosartorya</i>	<i>hiratsukae</i>	Ad2502	skimmed milk	-4	20	2.00E+05	-4	21	2.10E+05	-4	22	2.20E+05	0.02	White and spreaded colonies
16.	<i>Paecilomyces</i>	<i>variotii</i>	M6	Food	-3	131	1.30E+05	-3	76	7.60E+04	-3	27	2.70E+04	-0.45	Blue colonies
17.	<i>Penicillium</i>	<i>chrysogenum</i>	M14	Pastry/Bakery	-4	13	1.30E+05	-4	10	1.00E+05	-4	12	1.20E+05	0.08	Blue and white colonies
18.	<i>Penicillium</i>	<i>citreonigrum</i>	Adria 1052	Environment	-2	11	1.10E+03	-2	10	1.00E+03	-2	10	1.00E+03	0.00	Blue colonies
19.	<i>Penicillium</i>	<i>corylophilum</i>	M11	Pastry/Bakery	-3	44	4.40E+04	-3	42	4.20E+04	-3	42	4.20E+04	0.00	Blue and yellow colonies
20.	<i>Penicillium</i>	<i>digitatum</i>	Ad1159	Tea beverage	-4	81	8.10E+05	-4	39	3.90E+05	-4	17	1.70E+05	-0.36	White and spreaded colonies
21.	<i>Penicillium</i>	<i>roqueforti</i>	M1	Dairy	-4	86	8.60E+05	-4	134	1.30E+06	-4	55	5.50E+05	-0.37	Blue colonies
22.	<i>Phoma</i>	<i>glomerata</i>	M4	Food	-2	62	6.20E+03	-2	10	1.00E+03	-2	13	1.30E+03	0.11	Blue colonies with green center
23.	<i>Trichoderma</i>	<i>viride</i>	M2	Food	-3	5	5.00E+03	-3	6	6.00E+03	-3	12	1.20E+04	0.30	Blue and spreaded colonies

EXCLUSIVITY										
N°	Genus	Species	Strain reference	Origin	PCA		ISO 21527-1		CompactDry™ YMR	
									69 h at 25+/-1°C	
					Dilution	CFU/plate	Dilution	CFU/plate	Dilution	CFU/plate
1	Bacillus	subtilis	Ad836	Almonds	-5	77	-4	0	-4	0
2	Bacillus	weihenstephanensis	Adria 778	Mash potatoes	-5	65	-4	0	-4	0
3	Brochothrix	thermosphacta	Adria EN 15/29 S344	Trout	-5	63	-4	0	-4	0
4	Bruttiauxella	agrestis	Adria 115	Vegetables	-7	29	-6	0	-6	0
5	Carnobacterium	piscicola	Adria 369	Raw milk	-7	52	-6	0	-6	0
6	Corynebacterium	spp	Adria 361	Cheese	-6	127	-6	0	-6	0
7	Enterococcus	faecalis	Adria 288	Ready to eat meal	-8	26	-7	0	-7	0
8	Lactobacillus	plantarum	70	White wine	-7	56	-6	0	-6	0
9	Leclercia	adecarboxylata	Adria 707	Milk powder	-6	48	-5	0	-5	0
10	Leuconostoc	oenos	L107	Red wine	-1	36	-1	0	-1	0
11	Listeria	innocua	Adria 644	Pastry	-7	178	-6	0	-6	0
12	Micrococcus	luteus	Ad432	Rhum	-5	139	-5	0	-5	0
13	Moraxella	sp.	IB3	Chicken	-6	73	-5	0	-5	0
14	Plesiomonas	shigelloides	Adria 673	Fish	-6	103	-5	0	-5	0
15	Pseudomonas	fluorescens	Adria 16	Egg product	-7	36	-1	0	-1	0
16	Pseudomonas	putida	Adria 4	Poultry	-4	99	-2	0	-2	0
17	Rhanella	aquatilis	Adria 67	Cake	-7	28	-6	0	-6	0
18	Shewanella	baltica	Ad1694	Shrimp	-4	112	-2	0	-2	0
19	Staphylococcus	aureus	Adria 904	Cheese	-6	145	-6	0	-6	0
20	Staphylococcus	epidermidis	Adria 931	Fruit	-5	52	-4	0	-4	0
21	Arthrobacter	nicotianae	CIP 82.107T	Environment (air)	-7	21	-6	0	-6	0
22	Bacillus	coagulans	Ad2684	Cheese	-6	19	-2	0	-2	0
23	Bacillus	licheniformis	Ad2458	Fruit preparation	-5	10	-4	0	-4	0
24	Brevibacterium	casei	CIP 102111T	Cheese	-6	159	-6	0	-6	0
25	Kocuria	rosea	CIP 71.15T	Unknown	-4	40	-3	0	-3	0
26	Lactobacillus	parabruchneri	Ad1821	Cucumber	-2	75	-1	0	-1	0
27	Lactococcus	lactis	Ad125	Dairy product	-7	31	-6	0	-6	0
28	Lysinibacillus	fusiformis	Ad841	Milk powder	-6	52	-5	0	-5	0
29	Macrococcus	caseolyticus	CIP 100755	Milk	-6	75	-5	0	-5	0
30	Pediococcus	inopinatus	Ad1820	Cucumber	-7	80	-6	0	-6	0

Appendix 12 - Homogeneity of inoculation

Level L1							
Sample	Analysis 1	Analysis 2	Log Analysis 1	Log Analysis 2	D	S	D²
1	330	310	2.519	2.491	-0.027	5.010	0.001
2	320	260	2.505	2.415	-0.090	4.920	0.008
3	300	260	2.477	2.415	-0.062	4.892	0.004
4	240	240	2.380	2.380	0.000	4.760	0.000
5	330	330	2.519	2.519	0.000	5.037	0.000
6	310	280	2.491	2.447	-0.044	4.939	0.002
7	320	370	2.505	2.568	0.063	5.073	0.004
8	290	270	2.462	2.431	-0.031	4.894	0.001
9	320	320	2.505	2.505	0.000	5.010	0.000
10	310	390	2.491	2.591	0.100	5.082	0.010
sum	3070	3030	24.855	24.763	-0.092	49.618	0.030
						S _w	0.00148
						S _b	0.0050
						San²	0.00148
						Ssam²	0.001751
						F1	1.88
						F2	1.01
						Target standard deviation to apply	0.25
						Test value	0.01207

If test > Ssam² B.5 condition fulfilled and the test material is sufficiently uniform

Level L2							
Sample	Analysis 1	Analysis 2	Log Analysis 1	Log Analysis 2	D	S	D²
1	6600	8200	3.820	3.914	0.094	7.733	0.009
2	7100	6500	3.851	3.813	-0.038	7.664	0.001
3	5200	7000	3.716	3.845	0.129	7.561	0.017
4	8100	5700	3.908	3.756	-0.153	7.664	0.023
5	8000	8900	3.903	3.949	0.046	7.852	0.002
6	6000	7500	3.778	3.875	0.097	7.653	0.009
7	6500	5300	3.813	3.724	-0.089	7.537	0.008
8	4200	8200	3.623	3.914	0.291	7.537	0.084
9	7900	8600	3.898	3.934	0.037	7.832	0.001
10	6500	5700	3.813	3.756	-0.057	7.569	0.003
sum	66100	71600	38.123	38.481	0.357	76.604	0.159
						S _w	0.00794
						S _b	0.0067
						San²	0.00794
						Ssam²	-0.000623
						F1	1.88
						F2	1.01
						Target standard deviation to apply	0.25
						Test value	0.01859

If test > Ssam² B.5 condition fulfilled and the test material is sufficiently uniform

Level L3							
Sample	Analysis 1	Analysis 2	Log Analysis 1	Log Analysis 2	D	S	D²
1	79000	66000	4.898	4.820	-0.078	9.717	0.006
2	69000	77000	4.839	4.886	0.048	9.725	0.002
3	82000	58000	4.914	4.763	-0.150	9.677	0.023
4	69000	76000	4.839	4.881	0.042	9.720	0.002
5	84000	68000	4.924	4.833	-0.092	9.757	0.008
6	69000	57000	4.839	4.756	-0.083	9.595	0.007
7	54000	57000	4.732	4.756	0.023	9.488	0.001
8	65000	107000	4.813	5.029	0.216	9.842	0.047
9	75000	66000	4.875	4.820	-0.056	9.695	0.003
10	75000	107000	4.875	5.029	0.154	9.904	0.024
sum	721000	739000	48.548	48.573	0.025	97.121	0.122
						S _w	0.00612
						S _b	0.0068
						San²	0.00612
						Ssam²	0.000319
						F1	1.88
						F2	1.01
						Target standard deviation to apply	0.25
						Test value	0.01675

If test > Ssam² B.5 condition fulfilled and the test material is sufficiently uniform

Appendix 13 - Results obtained by the collaborative laboratories and the expert laboratory

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0.95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
A1 Aerobic mesophilic flora : 1.2 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	96	0	96	910	2.96	10	20	0	20	200	2.30
	1	100	4	0	4			100	2	0	2		
	6	10	48	0	48	480	2.68	10	30	0	30	290	2.46
	6	100	0	0	0			100	2	0	2		
	2	100	53	0	53	5300	3.72	100	87	0	87	8800	3.94
	2	1000	5	0	5			1000	10	0	10		
	3	100	70	0	70	7100	3.85	100	81	0	81	8300	3.92
	3	1000	8	0	8			1000	10	0	10		
	5	10000	13	0	13	130000	5.11	10000	12	0	12	110000	5.04
	5	100000	1	0	1			100000	0	0	0		
	7	1000	64	0	64	65000	4.81	1000	86	0	86	86000	4.93
	7	10000	7	0	7			10000	9	0	9		
A2 Aerobic mesophilic flora : 2.5 x 10 ² CFU/g	11	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	11	100	0	0	0			100	0	0	0		
	9	10	52	0	52	530	2.72	10	32	0	32	300	2.48
	9	100	6	0	6			100	1	0	1		
	14	10	56	0	56	530	2.72	10	18	0	18	170	2.23
	14	100	2	0	2			100	1	0	1		
	8	100	74	0	74	7100	3.85	100	78	0	78	7500	3.88
	8	1000	4	0	4			1000	5	0	5		
	12	100	50	0	50	5200	3.72	100	71	0	71	7200	3.86
	12	1000	7	0	7			1000	8	0	8		
	10	1000	58	0	58	55000	4.74	1000	80	0	80	71000	4.85
	10	10000	3	0	3			10000	7	0	7		
	13	1000	55	0	55	55000	4.74	1000	74	0	74	70000	4.85
	13	10000	5	0	5			10000	3	0	3		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
A3 Aerobic mesophilic flora : 1.8 x 10 ² CFU/g	19	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	19	100	0	0	0			100	0	0	0		
	15	10	51	0	51	480	2.68	10	16	0	16	150	2.18
	15	100	2	0	2			100	0	0	0		
	17	10	30	0	30	300	2.48	10	19	0	19	180	2.26
	17	100	3	0	3			100	1	0	1		
	18	100	58	0	58	5600	3.75	100	73	0	73	7600	3.88
	18	1000	4	0	4			1000	11	0	11		
	21	100	51	0	51	5300	3.72	100	71	0	71	7500	3.88
	21	1000	7	0	7			1000	11	0	11		
	16	1000	70	0	70	70000	4.85	1000	68	0	68	72000	4.86
	16	10000	7	0	7			10000	11	0	11		
	20	1000	55	0	55	55000	4.74	1000	52	0	52	51000	4.71
	20	10000	5	0	5			10000	4	0	4		
B Aerobic mesophilic flora : 1.6 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	25	0	25	260	2.41	10	20	0	20	200	2.30
	1	100	4	0	4			100	2	0	2		
	6	10	25	0	25	260	2.41	10	20	0	20	220	2.34
	6	100	3	0	3			100	4	0	4		
	2	100	50	0	50	4900	3.69	100	64	0	64	6300	3.80
	2	1000	4	0	4			1000	5	0	5		
	3	100	51	0	51	5000	3.70	100	65	0	65	6400	3.81
	3	1000	4	0	4			1000	5	0	5		
	5	1000	74	0	74	71000	4.85	1000	50	0	50	52000	4.72
	5	10000	4	0	4			10000	7	0	7		
	7	1000	57	0	57	55000	4.74	1000	83	0	83	80000	4.90
	7	10000	3	0	3			10000	5	0	5		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
C1 Aerobic mesophilic flora : 1.3 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	63	0	63	590	2.77	10	87	0	87	850	2.93
	1	100	2	0	2			100	6	0	6		
	6	10	88	0	88	910	2.96	10	97	0	97	1000	3.00
	6	100	12	0	12			100	15	0	15		
	2	1000	19	0	19	19000	4.28	1000	17	0	17	18000	4.26
	2	10000	2	0	2			10000	3	0	3		
	3	100	57	0	57	5900	3.77	100	82	0	82	8400	3.92
	3	1000	8	0	8			1000	10	0	10		
	5	1000	103	0	103	99000	5.00	1000	99	0	99	98000	4.99
	5	10000	6	0	6			10000	9	0	9		
	7	1000	136	0	136	130000	5.11	1000	79	0	79	77000	4.89
	7	10000	10	0	10			10000	6	0	6		
C2 Aerobic mesophilic flora : 1.1 x 10 ² CFU/g	11	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	11	100	0	0	0			100	0	0	0		
	9	100	22	0	22	2600	3.41	100	30	0	30	2800	3.45
	9	1000	7	0	7			1000	1	0	1		
	14	100	17	0	17	1600	3.20	100	15	0	15	1500	3.18
	14	1000	1	0	1			1000	1	0	1		
	8	1000	70	0	70	72000	4.86	1000	81	0	81	89000	4.95
	8	10000	9	0	9			10000	17	0	17		
	12	10000	19	0	19	180000	5.26	1000	110	0	110	110000	5.04
	12	100000	1	0	1			10000	13	0	13		
	10	10000	63	0	63	690000	5.84	10000	87	0	87	870000	5.94
	10	100000	13	0	13			100000	9	0	9		
	13	10000	55	0	55	550000	5.74	10000	58	0	58	600000	5.78
	13	10000	5	0	5			100000	8	0	8		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
D1 Aerobic mesophilic flora : 2.4 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	1000	27	0	27	26000	4.41	1000	20	0	20	18000	4.26
	1	10000	2	0	2			10000	0	0	0		
	6	1000	35	0	35	35000	4.54	1000	35	0	35	40000	4.60
	6	10000	4	0	4			10000	9	0	9		
	2	10000	22	0	22	220000	5.34	10000	>150	0	>150	2300000	6.36
	2	100000	2	0	2			100000	23	0	23		
	3	10000	35	0	35	330000	5.52	10000	66	0	66	650000	5.81
	3	100000	1	0	1			100000	5	0	5		
	5	10000	>150	0	>150	3700000	6.57	10000	>150	0	>150	9000000	6.95
	5	100000	37	0	37			100000	90	0	90		
	7	10000	>150	0	>150	400000	5.60	10000	>150	0	>150	16500000	7.22
	7	100000	4	0	4			100000	165	0	165		
D2 Aerobic mesophilic flora : 2.5 x 10 ² CFU/g	11	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	11	100	0	0	0			100	0	0	0		
	9	1000	30	0	30	29000	4.46	1000	50	0	50	46000	4.66
	9	10000	2	0	2			10000	1	0	1		
	14	1000	37	0	37	35000	4.54	1000	29	0	29	28000	4.45
	14	10000	1	0	1			10000	2	0	2		
	8	10000	102	0	102	1020000	6.01	10000	>150	0	>150	1800000	6.26
	8	100000	22	0	22			100000	18	0	18		
	12	10000	110	0	110	1100000	6.04	10000	>150	0	>150	1400000	6.15
	12	100000	8	0	8			100000	14	0	14		
	10	10000	>150	0	>150	6400000	6.81	10000	>150	0	>150	7500000	6.88
	10	100000	64	0	64			100000	75	0	75		
	13	10000	>150	0	<150	7500000	6.88	10000	>150	0	>150	6100000	6.79
	13	100000	75	0	75			100000	61	0	61		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
E1 Aerobic mesophilic flora : 9.4 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	22	0	22	220	2.34	10	23*	0	23	220	2.34
	1	100	2	0	2			100	1	0	1		
	6	10	30	0	30	300	2.48	10	27*	0	27	270	2.43
	6	100	3	0	3			100	3	0	3		
	2	100	37	0	37	3800	3.58	100	24	0	24	2300	3.36
	2	1000	5	0	5			1000	1	0	1		
	3	100	51	0	51	5400	3.73	100	47	0	47	4800	3.68
	3	1000	8	0	8			1000	6	0	6		
	5	1000	71	0	71	76000	4.88	1000	70	0	70	69000	4.84
	5	10000	13	0	13			10000	6	0	6		
	7	10000	15	0	15	150000	5.18	10000	12	0	12	120000	5.08
	7	100000	2	0	2			100000	1	0	1		
E2 Aerobic mesophilic flora : 9.5 x 10 ² CFU/g	11	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	11	100	0	0	0			100	0	0	0		
	9	10	14	0	14	170	2.23	10	7*	7	7	73	1.86
	9	100	4	1	5			100	1	0	1		
	14	10	16	0	16	170	2.23	10	16	0	16	170	2.23
	14	100	3	0	3			100	3	0	3		
	8	100	20	0	20	2100	3.32	100	19	0	19	2000	3.30
	8	1000	3	0	3			1000	3	0	3		
	12	100	56	0	56	6100	3.79	100	48	0	48	4800	3.68
	12	1000	11	0	11			1000	5	0	5		
	10	1000	46	0	46	50000	4.70	1000	35	0	35	36000	4.56
	10	10000	9	0	9			10000	5	0	5		
	13	1000	58	2	60	56000	4.75	1000	41	0	41	40000	4.60
	13	10000	1	1	2			10000	3	0	3		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
F1 Aerobic mesophilic flora : 1.7 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	27	0	27	270	2.43	10	28	0	28	260	2.41
	1	100	3	0	3			100	1	0	1		
	6	10	7	0	7	73 Ne	1.86 Ne	10	25	0	25	240	2.38
	6	100	1	0	1			100	1	0	1		
	2	100	23	0	23	2800	3.45	100	52	0	52	5000	3.70
	2	1000	8	0	8			1000	3	0	3		
	3	100	41	0	41	4100	3.61	100	54	0	54	5200	3.72
	3	1000	4	0	4			1000	3	0	3		
	5	1000	40	0	40	42000	4.62	1000	62	0	62	65000	4.81
	5	10000	6	0	6			10000	9	0	9		
	7	1000	43	0	43	44000	4.64	1000	62	0	62	61000	4.79
	7	10000	5	0	5			10000	5	0	5		
F2 Aerobic mesophilic flora : 4.0 x 10 ² CFU/g	11	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	11	100	0	0	0			100	0	0	0		
	9	10	5	0	5	55	1.74	10	28	0	28	260	2.41
	9	100	1	0	1			100	1	0	1		
	14	10	7	0	7	64 Ne	1.81 Ne	10	18	0	18	160	2.20
	14	100	0	0	0			100	0	0	0		
	8	100	41	0	41	4000	3.60	100	65	0	65	6600	3.82
	8	1000	3	0	3			1000	8	0	8		
	12	100	34	0	34	3500	3.54	100	62	0	62	6200	3.79
	12	1000	5	0	5			1000	6	0	6		
	10	1000	22	0	22	24000	4.38	1000	69	0	69	70000	4.85
	10	10000	4	0	4			10000	8	0	8		
	13	1000	38	0	38	39000	4.59	1000	44	0	44	43000	4.63
	13	10000	5	0	5			10000	3	0	3		

Laboratory	Sample N°	Reference method: ISO 21527-1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
G Aerobic mesophilic flora : 1.7 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	27	0	27	290	2.46	10	32	0	32	320	2.51
	1	100	5	0	5			100	3	0	3		
	6	10	27	0	27	250	2.40	10	30	0	30	330	2.52
	6	100	0	0	0			100	6	0	6		
	2	1000	10	0	10	9100	3.96	1000	12	0	12	12000	4.08
	2	10000	0	0	0			10000	1	0	1		
	3	1000	21	0	21	19000	4.28	1000	12	0	12	11000	4.04
	3	10000	0	0	0			10000	0	0	0		
	5	1000	71	0	71	73000	4.86	1000	83	0	83	83000	4.92
	5	10000	9	0	9			10000	8	0	8		
	7	1000	54	0	54	57000	4.76	1000	73	0	73	74000	4.87
	7	1000	9	0	9			1000	8	0	8		

Laboratory	Sample N°	Reference method: ISO 21527* -1 Aw>0,95 DRBC plates - 5 days at 25 ± 1°C						Alternative method: CompactDry™ YMR (CD TC, 72 ± 3h at 25 ± 1°C)					
		Dilution	CFU/plate			CFU/g	log CFU/g	Dilution	CFU/plate			CFU/g	log CFU/g
			Yeasts	Moulds	Total				Yeasts	Moulds	Total		
H (ADRIA) Aerobic mesophilic flora : 2.4 x 10 ² CFU/g	4	10	0	0	0	<10	<1.00	10	0	0	0	<10	<1.00
	4	100	0	0	0			100	0	0	0		
	1	10	31	0	31	310	2.49	10	35	0	35	320	2.51
	1	100	3	0	3			100	0	0	0		
	6	10	30	0	30	310	2.49	10	25	0	25	260	2.41
	6	100	4	0	4			100	4	0	4		
	2	100	79	0	79	8000	3.90	100	70	0	70	6700	3.83
	2	1000	9	0	9			1000	4	0	4		
	3	100	64	0	64	6500	3.81	100	67	0	67	6200	3.79
	3	1000	7	0	7			1000	1	0	1		
	5	1000	89	0	89	88000	4.94	1000	55	0	55	56000	4.75
	5	10000	8	0	8			10000	7	0	7		
	7	1000	63	0	63	63000	4.80	1000	64	0	64	65000	4.81
	7	10000	6	0	6			10000	8	0	8		

*: initially considered as Mould by the collaborator

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

ADRIA

Summary report (Version 0)

CompactDry YMR

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10 July 2025