



réseau d'analyses et d'échanges en microbiologie des aliments

ASA – Animal Société Aliment – is a non-profit organization open to people and organisms interested in **veterinary public health**. ASA commitment is to investigate all contributions to public health related to the animals, their environment and their production. ASA organizes also scientific events dealing with veterinary public health and publishes **ASADIA** a reference atlas of lesions encountered in fresh meat during *post mortem* inspection.

ASA has been organising a **proficiency testing scheme** in food microbiology since 1988 (**RAEMA - Réseau d'Analyses et d'Echanges en Microbiologie des Aliments**) and has been **accredited by Cofrac*** according to **ISO 17043** since 2007. Today, **RAEMA** allows approximately **400 laboratories** to assess their performance in microbiology testing with an artificially contaminated powder matrix. Detection of *Salmonella* and *Listeria monocytogenes*, as well as the enumeration of flora such as aerobic microorganisms at 30°C, *Enterobacteriaceae*, *Staphylococci*, *Clostridium perfringens* and *L. monocytogenes* are proposed.

To increase the performance evaluation and answer to laboratories requirements, a **Gel RAEMA** testing scheme was established in 2010 with an artificially contaminated **gelified matrix**. About **90 laboratories** are currently being tested on the enumeration of *Bacillus*, *Pseudomonas*, lactic bacteria and yeasts/moulds.

The statistical exploitation of the results is based on **robust analysis algorithms** which allow the calculation of **assigned values** for the contamination of inoculated samples. After each **RAEMA** scheme, an **individual report** is published for every laboratory. Reports include evaluation of the laboratories **individual performance** based on the **trueness** (z-score) and the **precision** (repeatability-score) of their results. To ensure **anonymity and confidentiality**, each laboratory can download its own individual report identified with a confidential code after preliminary identification (logging with its individual code and password).

General data on analytical techniques used by laboratories as well as statistical analysis of technical parameters influencing the tests results are presented in a **general report**. This report is not confidential, and can be directly downloaded on the **website of ASA** <https://association.asa-spv.fr>.

* accreditation N°1-1836, scope available on the website of Cofrac www.cofrac.fr.

Proficiency testing scheme	RAEMA	Gel RAEMA
Matrix	Powder	Gel
Number of samples	Five samples contaminated with cocktails of strains	One sample by microorganism
Enumerations proposed	<ul style="list-style-type: none"> Aerobic microorganisms at 30°C <i>Enterobacteriaceae</i> Total coliforms Thermotolerant coliforms Beta-glucuronidase-positive <i>Escherichia coli</i> Coagulase positive <i>staphylococci</i> Anaerobic sulfite-reducing bacteria <i>Clostridium perfringens</i> <i>Listeria monocytogenes</i> 	<ul style="list-style-type: none"> <i>Bacillus</i> <i>Pseudomonas</i> Lactic bacteria Yeast/Moulds
Detections proposed	<ul style="list-style-type: none"> <i>Listeria monocytogenes</i> <i>Salmonella</i> 	Not proposed
Assessed laboratory performances	<ul style="list-style-type: none"> Evaluation of the trueness and the precision Evolution of performance 	<ul style="list-style-type: none"> Evaluation of the trueness
General report	<ul style="list-style-type: none"> General data on analytical techniques used by laboratories Factors significantly influencing laboratories results 	<ul style="list-style-type: none"> General data on analytical techniques used by laboratories Factors significantly influencing laboratories results
Individual report	<ul style="list-style-type: none"> Individual performance statistics: z-score, repeatability-score 	<ul style="list-style-type: none"> Individual performance statistic: z-score
Date of schemes	<ul style="list-style-type: none"> March October 	<ul style="list-style-type: none"> May December

