

3rd EFSA Science Meets Policy: From Regulation to Practice

An agency whose mission is to investigate, evaluate and protect

ANSES is a **French scientific expert appraisal agency**

It is a public administrative body under the authority of the French Ministries of Health, Agriculture, Ecological Transition, Labour and Consumer Affairs.

Our role

To provide public decision-makers with the **scientific benchmarks** needed to better protect human health (including at work), animal health and plant health.

Our ambition

To promote the production of data and knowledge to **safeguard global health** with our European and international counterparts.



Created in
2010

1400
employees

Annual budget of
145 million €

The food surveillance system in France

Food surveillance system in France

Monitoring of human cases



National Ref. Center
Clinical isolates
Analyses and strain isolation
Strain characterization



Epidemiological Investigations
Trend analysis and annual reporting

**Ministry
of
Health**

CORRUSS

DGS

Monitoring of the food chain



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NRL: Coordination of national labs
Analyses and strain isolation
Strain characterization
Epidemiological Investigations
Food chain monitoring PTF



DGAI: Food authority
Politics and laws for food safety
Coordination between institutions
Risk management

Food outbreak management system

Monitoring of human cases



National Ref. Center
Data sharing of clinical isolates



Epidemiological investigations
Trend analysis and annual reporting

Monitoring of the food chain



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National Ref. Lab
Confirmation of analysis
Strain characterization
Data sharing of food isolates
Epidemiological Investigations



DGAI: Food authority
Food recalls and withdrawals
Plant inspection & investigations
Coordination between institutions

CORRUSS
DGS

MUS
DGAL

MUS / DGAI

- The Health Emergency Unit (MUS) of the Directorate-General for Food within the Ministry of Agriculture, acts as a coordinating body
- The MUS coordinates investigations and inspections carried out by the Ministry of Agriculture's departments at national level, in close collaboration with CORRUS
- The MUS is also the national contact point for the European Union's Rapid Alert System for Food and Feed (RASFF)
- Various technical guidance documents available on-line
 - ✓ Guide to the Management of Foodborne outbreaks - for use by Food business operators and the authorities - DGAL/MUS/2023-11
 - ✓ Investigations of human cases with suspected food-borne causes...

Thématique Sommaires A venir Abonnement Imprimer B.O.-agri ministère

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Plein texte

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DGAL/MUS/2026-55

du 03-02-2026
Statut : *EnVigueur*

OBJET : Les investigations de cas humains pour lesquels une cause alimentaire est suspectée
(Télécharger le PDF (373ko))

RESUME : La présente instruction technique présente les dispositifs de surveillance et les suites à donner, notamment dans des contextes de : - Toxi-infection alimentaire collective ; - Cas groupés ou clusters (statistiques, épidémiologiques, génomiques) ; - Déclaration obligatoire de listériose ; - Cas de botulisme ; - Nutrivigilance et toxicovigilance ; - Suspensions relatives à des laits infantiles ;

DGAL/MUS	Instruction technique DGAL/MUS/2026-55 Publiée le 04-02-2026
	Diffusion : Tout public

Relations avec les autres instructions

<u>Abroge :</u> Cette instruction est à diffusion limitée. Cette instruction ne modifie aucune autre instruction.	Cette instruction n'est abrogée par aucune instruction. Cette instruction n'est modifiée par aucune instruction. Cette instruction n'a jamais été rectifiée.
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DESTINATAIRES D'EXECUTION : DRAAF DAAF DD(ETS)PP

DESTINATAIRES D'INFORMATION :

Cette instruction est classée dans les dossiers thématiques suivants :
07900 - [Alertes et urgences](#)

Cette instruction est parue au sommaire du 05-02-2026.

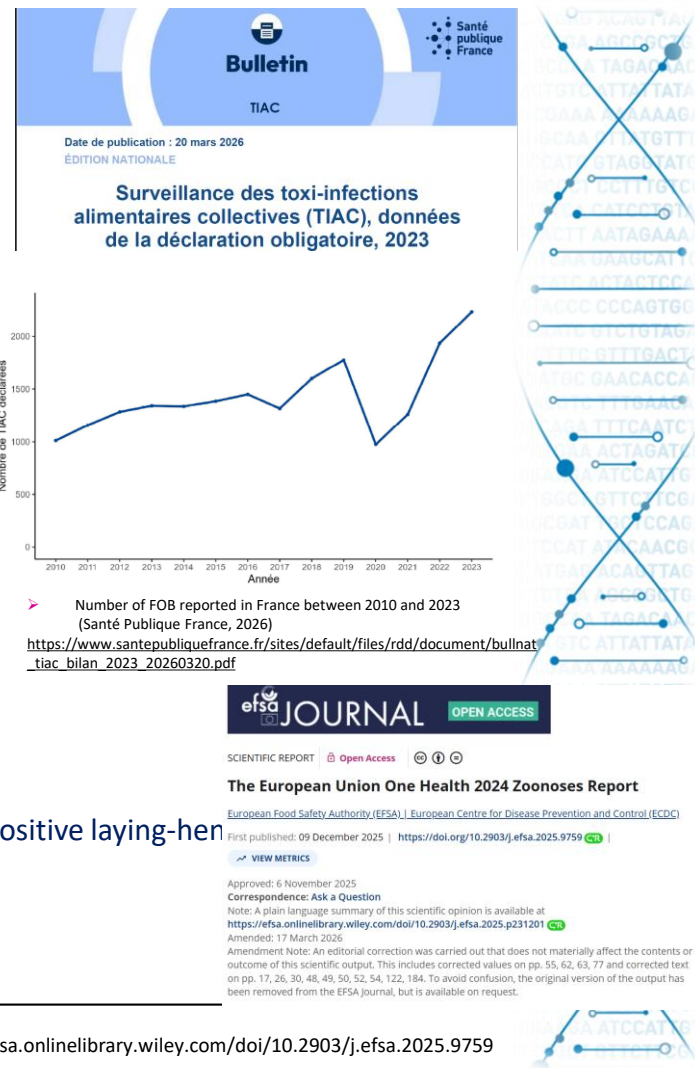
Agriculture.gouv.fr

Plan du site | Accessibilité partiellement conforme | Mentions légales

Foodborne outbreaks in France

- 2 231 FBO in 2023 in France
- 22 282 sick people, 643 (4 %) with hospitalizations
- The highest number of FBO since the beginning of the monitoring in 1987
- Toxinic agents, *Bacillus cereus*, *Staphylococcus aureus* and *Clostridium perfringens* : 70 % of FBO suspected cases (without confirmation)
- *Salmonella* - major foodborne pathogen confirmed : 31 % of FBO cases / 42% in 2022 !
- Estimate SpF: 198 000 salmonellosis cases / year - 183 000 caused by foodborne transmission

- **EU One Health Zoonoses Reports - 2024:** *Salmonella* major foodborne agent
- **S. Enteritidis** : 58.4% human salmonellosis infections & 38.5% of Salmonella-positive laying-hen samples
- Eggs & egg products still important food vehicle



Outbreaks notifications involving the Salmonella NRL



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Ploufragan-Plouzané-Niort

Salmonella National Reference
Laboratory



	Number of alerts	Number of strain sequenced NRL (WGS)	Some examples
2021	29	≈ 80	<i>S. Give</i>: charcuterie <i>S. Typhimurium</i> variant: fuet <i>S. Chester</i>: poultry meat <i>S. Bovismorbificans</i>: dry sausage
2022	39	≈ 80	<i>S. Enteritidis</i>: eggs <i>S. Menston</i>: sesame seeds <i>S. Agona</i>: lamb meat <i>S. Ajiobo</i>: goat's milk
2023	35	≈ 80	<i>S. Derby</i>: dry sausage; <i>S. Senftenberg</i>: cherry tomatoes <i>S. Virchow</i> : chicken <i>S. Enteritidis</i> : salad
2024	30	≈ 80	<i>S. monophasic</i> variant : cheese <i>S. Enteritidis</i> : eggs
2025	60	≈ 100	<i>S. Enteritidis</i> : poultry <i>S. Typhimurium</i> : pork



Use of WGS in France for the monitoring of foodborne pathogens – focus on *Salmonella* cases



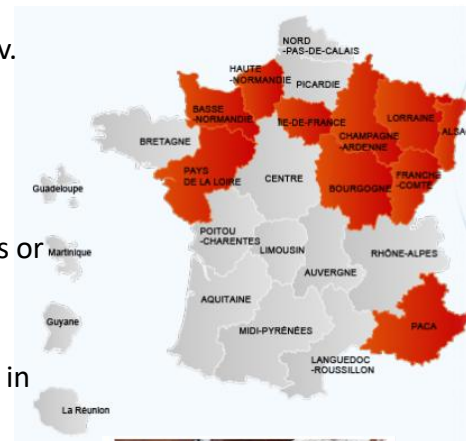
Countrywide multi-serotype outbreak of *S. Bovismorbificans* & monophasic *S. Typhimurium*

- **Santé publique France** reported 33 human cases of salmonellosis in 10 regions Sept. to Nov. 2020 / *S. Bovismorbificans*
- Outbreaks linked to **dried pork sausages** from the same manufacturer
- *S. Bovismorbificans* associated to human outbreaks and consumption of vegetables / humus or tahini in Australia, EU and the US
- Additional lab investigations **Anses NRL** => monophasic variant of *Salmonella* Typhimurium in one food sample
- **WGS investigation**

Enterobase: cgMLST for sequence comparison

=> 11 cases infected by monophasic variant (ST34, HC5_198125) Oct - Dec 20

=> 33 cases linked *S. Bovismorbificans* (ST142, HC5_243255)



Countrywide multi-serotype outbreak of *S. Bovismorbificans* & monophasic *S. Typhimurium*

- Three recalls and withdrawals of dried pork products issued by the DGAI in November 2020 - 8 supermarket chains
- At EU level, notifications launched on :

- European Rapid Alert System for Food and Feed - RASFF

RASFF Window
Version 2.4.1

EpiPulse
Report Manage Explore Collaborate

Item details
ID: 2021-FWD-00076
Type: Event
Title: Cluster of monophasic *Salmonella Typhimurium*, Sweden
Diseases: Salmonellosis
Pathogens: *Salmonella monophasic Typhimurium* 1.4 [IS]120-
Participating domain: FWD

Key information
Document workspace (contains 0 files in 0 spaces)

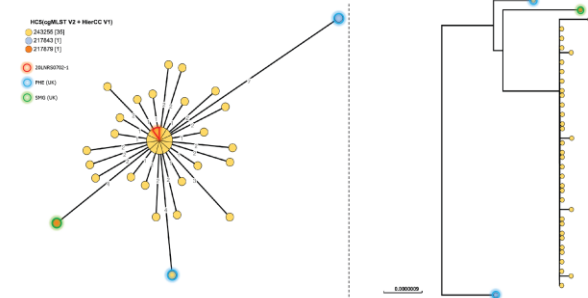
Situation Awareness
Comments Links Outputs (upcoming) Visualisations ECDC

Item created on: 2021-09-28 09:44
Item last updated on: 2021-10-25 15:17
Number of reply comments: 9
NCC: Number of confirmed cases: 36
NMC: Number of non-confirmed cases: 1
NCD: Number of confirmed deaths: 0

- EpiPulse

- One case reported by Germany, Ireland, Norway, UK
- Comparison to *S. Bovismorbificans* genome - NRC for *Salmonella* Institut Pasteur

=> SNP analysis & epidemiological data excluded them of the FR cluster



EU alert for *S. Virchow* ST16

• SpF contacts Anses NRL *Salmonella* - December 2022

- 36 human cases of *Salmonella* Virchow identified
- All strains isolated associated with HC5|82819 genomic profile
- No specific food suspicion
- Search in Anses NRL strains library for *S. Virchow* ST16 strains isolated in 2022

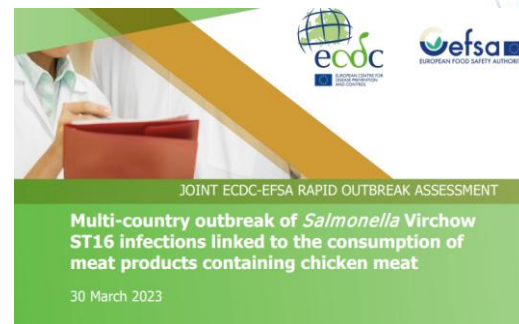
• Epidemiological situation in January, 2023

- 52 human cases of *Salmonella* Virchow - January 17, 2023
- CORRUSS meetings set up
- Suspicion of Kebab meat consumption (chicken meat)
- WGS analysis: clinical strains grouping with other EU strains (Germany & NL)

2 *S. Virchow* strains identified in NRL *Salmonella* strains collection

- Genomic analysis : identical HC5|cluster => **results shared with NRC & SpF & MUS/DGAI & CORUSS**
- Sequences were deposited in the EFSA One Health DB
- Results were subject to Rapid Outbreak Assessment

• EU persistent cross-border outbreak of *S. Virchow* with 210 cases since 2017 !



S. Menston – International spreading

- SpF contacts NRL *Salmonella* on November 04, 2022
- 24 human cases of *Salmonella* Menston identified
 - WGS analysis: all strains belong to the HC5|297161 genomic profile
 - Suspicion of sesame paste / tahini consumption
 - "Clustering" of human strains with a strain isolated from tahini distributed in Canada
- No *S. Menston* in the NRL *Salmonella* strains collection !
 - New sampling of sesame paste & **Anses** NRL additional investigations :

S. Menston HC5|297161 confirmed & discovery of *S. Kavelinge* HC10|297162!

- WGS analysis: same HC5|cluster for *S. Menston* food and clinical isolate

=> results shared with SpF, NRC, MUS/DGAI, CORUSS

=> Canadian authorities - 15 cases associated with tahini consumption in 2021–2022 !

Same outbreak cluster as in France

- December 2022: wholesaler **recalled and withdrew tahini products** - FR
- Sequences deposited in the EFSA One Health DB



S. Enteritidis ST11 – EU cross-border dimension

• MUS investigation May to June 2026 : 4 independant outbreaks

- Suspicion of eggs / egg-based products
- WGS analysis: 2 distinct strains with HC5|3522 & HC5|305390 genomic profiles
- "Clustering" of human strains with one strain isolated from home made mayonnaise

• MUS notifications on RASFF June 2026

- Suggestion of a spread of closely related S. Enteritidis ST11
- EU activation of the Mandate “*Request for scientific assistance of EFSA in the investigation of multinational foodborne outbreaks*”

• => EFSA data call for submission of S. Enteritidis ST11 isolates - eggs & egg products April and July 2026

=> 14 genomic profiles collected from Austria, Italy & France

- WGS analysis - EFSA & ECDC OH WGS database: similar ST11 profiles – clusters with human and non-human isolates and a cross-border dimension !

• Outbreak investigations & Traceability : common Polish egg distribution network - 2 packing centres / 3 farms

- Farms previously implicated in persistent polyclonal multi-country outbreak of salmonellosis EU - 2016 and 2020

1.2.2002 EN Official Journal of the European Communities L 31/1

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(Acts whose publication is obligatory)

REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 28 January 2002
laying down the general principles and requirements of food law, establishing the European Food
Safety Authority and laying down procedures in matters of food safety



Concluding remarks



Concluding remarks

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WGS is key for reinforcing epidemiological investigations and a gain in accuracy & time.

High-quality WGS data plus rich metadata enables authorities and industry to move from 'possible link' to 'actionable source' !

EU Regulation 2025/179 mandates data sharing but needs quality implementation ! A genome without Metadata is difficult to translate into a decision. Metadata is not administrative overhead; it is part of the evidence... Food business operators hold key WGS data from own-checks and product testing

ANSES CALLS ON : Strains isolated from FBO self-monitoring tests to be shared as well, in order to enhance the effectiveness and responsiveness of WGS surveillance

Implementation of EU Regulation 2025/179: FR food authority - New Technical instruction on the use of the Genomic sequencing in the field of food safety - In finalization

FR Partners' group - EFSA OH WGS System: internal guidelines EU 2025/179 in preparation !

EFSA - ECDC OH WGS System : France will share on WGS profiles of foodborne representative isolates obtained during national monitoring plans and control plans!



Thanks for your attention!



Questions?



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