

INFOSAN

International Food Safety Authorities Network

Activity
report
2020-2021



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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INFOSAN Activity report 2020-2021

Foreword

The 2020-2021 biennium posed great challenges for food safety at the international level. The world was faced with the COVID-19 pandemic, which impacted how food was produced, distributed, and consumed around the globe. Food safety authorities were also challenged as their operations needed to adapt to the context of the COVID-19 pandemic. The pandemic underlined the importance for Member States to strengthen food safety systems, including international and multisectoral collaboration for emergency response, to ensure solid risk communication, allowing for food distributed at the international level to be safe.

At the same time, relevant international food safety emergencies and incidents occurred, including large-scale foodborne outbreaks and the wide distribution of contaminated food products with the potential to harm people's health. Such emergencies and incidents highlighted the importance of international collaboration, through rapid and timely information sharing for the implementation of risk management measures. Networks, such as the International Food Safety Authorities Network (INFOSAN), played a key role in facilitating and assisting Member States to exchange information to mitigate the impact of such emergencies on public health.

In this context, INFOSAN played a key role in sharing timely information concerning food safety emergencies, as well as to exchange knowledge and ideas concerning food safety during the COVID-19 pandemic. The Network witnessed an important increase in the information shared, with the busiest year for international food safety emergencies and incidents recorded so far in 2021.

Since its creation in 2004, INFOSAN has facilitated the rapid exchange of information across borders and between members, during hundreds of food safety incidents with international implications. The current technological trends available to food safety authorities and globalized food commodity consumption leave no question that a network such as INFOSAN is essential for the way forward. The Network will continue to promote capacity building for response to food safety emergencies, through a multi-sectoral approach and to facilitate a space for rapid and effective information exchange during food safety emergencies.

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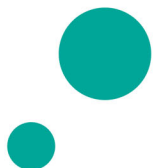


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Abbreviations

ACHIPIA	Chilean Agency for Food Safety and Quality
AMRO	WHO Regional Office for the Americas
AMS	ASEAN Member State
ASEAN	Association of Southeast Asian Nations
ARASFF	ASEAN Rapid Alert System for Food and Feed
BVL	Federal Office of Consumer Protection and Food Safety
CAC	Codex Alimentarius Commission
CCAFRICA	FAO/WHO Coordinating Committee for Africa
CFIA	Canadian Food Inspection Agency
DG	INFOSAN Discussion Group
ECP	INFOSAN Emergency Contact Point
ECCP	European Commission Contact Point
ECDC	European Centre for Disease Prevention and Control
EFSA	European Food Safety Authority
EREN	Emerging Risks Exchange Network
ESF	Food Systems and Food Safety Division at FAO
EU	European Union
EURO	WHO Regional Office for Europe
FAO	Food and Agriculture Organization of the United Nations
FP	INFOSAN Focal Point
FSA	Food Standards Agency of the United Kingdom
FSANZ	Food Standards Australia New Zealand
FSS	Food Standards Scotland
ICW	INFOSAN Community Website
IHR (2005)	International Health Regulations (2005)
IHR NFP	National Focal Point for IHR
INFOSAN	International Food Safety Authorities Network
JEE	Joint External Evaluation
NCP	National Contact Point for ASEAN
PAHO	Pan American Health Organization
RAP	FAO Regional Office for Asia and the Pacific
RASFF ECCP	RASFF European Commission Contact Point
RASFF	Rapid Alert System for Food and Feed
ROK	Republic of Korea
SAR	Special Administrative Region
SEARO	WHO Regional Office for South-East Asia
United Kingdom	United Kingdom of Great Britain and Northern Ireland
USA	United States of America (the)
USD	United States Dollar
US CDC	Centers for Disease Control and Prevention of the United States of America
WGS	Whole Genome Sequencing
WHO	World Health Organization
WPRO	WHO Regional Office for the Western Pacific
WFSD	World Food Safety Day

Executive summary

Aiming to prevent the international spread of contaminated food and foodborne diseases, INFOSAN has been connecting national authorities worldwide since 2004 to strengthen national and international food safety systems. Since its launch, INFOSAN has continued to grow and develop throughout the past biennium, forging functional links with regional food safety networks and initiatives, and building on a strong global reputation for efficiency and effectiveness, especially in the context of international food safety emergency response.

During the 2020-2021 biennium, the INFOSAN Secretariat responded to 375 international food safety events representing the highest number of incidents since the launch of the Network, and nearly double the number of events responded to during the last biennium (162 incidents in the 2018/2019 biennium). The increase in activity could be attributed to the increased awareness of food safety risks, capacity-building activities delivered by the INFOSAN Secretariat, increased reporting of food safety issues, webinars and workshops with FAO and WHO Member States, increased capacity at the INFOSAN Secretariat, and stronger collaboration with key partners. During these events, the INFOSAN Secretariat facilitated communication and the sharing of important food safety information among the Network members. This allowed countries to apply risk management measures, thereby mitigating the risk of foodborne disease outbreaks around the world. Biological hazards were responsible for the largest number of INFOSAN events, the most common of which was *Salmonella* spp. This remains consistent with hazards involved during the previous biennium. The rest of the incidents involved undeclared allergens, physical hazards, chemical hazards, and hazards that remained unidentified. The most implicated food categories were fish and other seafood, followed by milk and dairy products, meat and meat products, and snacks & desserts. The majority of the 375 events involved Member States in the European Region, followed by the African Region, the Region of the Americas, the Western Pacific Region, the Eastern Mediterranean Region, and the South-East Asia Region.

INFOSAN Secretariat has been involved in the two major outbreaks of foodborne illnesses linked to the consumption of enoki mushrooms from the Republic of Korea in 2020 and Galia melons from Honduras in 2021. The INFOSAN Secretariat facilitated international collaboration between the affected countries to identify the source of the outbreaks, share information on investigations, and implement measures to mitigate the potential risk.

To strengthen national capacities, the INFOSAN Secretariat conducted six country workshops. Due to the COVID-19 pandemic and the travel restrictions it imposed, the INFOSAN Secretariat adapted the country workshops to an online format. Those workshops were delivered to Kuwait, Guyana, Morocco, Cameroon, Senegal, and Bhutan. Connecting with members in those countries helped build functional links between national agencies involved in food safety to better address food safety emergency response. The INFOSAN Secretariat also collaborated with the FAO/WHO Food Safety Regional Advisors to organize and conduct Regional Meetings for INFOSAN members in the African Region, the Region of the Americas, and the Asia-Pacific Region. The INFOSAN Secretariat and its members also celebrated the World Food Safety Day (2020 and 2021) by participating in numerous activities and webinars.

Due to the increased requests for country workshops, webinars, and trainings from Member States, the INFOSAN Secretariat launched the Train-the-trainer program with the support of the Canadian Food Inspection Agency (CFIA), to train "INFOSAN Ambassadors" to support the work of INFOSAN during workshops and trainings. The program selected 12 Ambassadors from 12 different countries, and trained them on INFOSAN-related topics, including INFOSAN roles and responsibilities and key principles for international foodborne disease outbreak investigation and food safety emergency response.

The INFOSAN Community Website is the main platform through which members communicate with each other and the INFOSAN Secretariat which now supports more than 800 users globally. In 2021, the INFOSAN Secretariat successfully launched the new, modernized ICW and made it available to the members. It hosts new features that members can use to report and review international food safety incidents through improved online tools, such as a comprehensive member database so that INFOSAN members across the globe can contact each other and a modern, user-friendly interface.

INFOSAN membership has continued to grow during the 2020-2021 biennium, with a 25% increase in the number of Emergency Contact Points and Focal Points registered on the INFOSAN Community Website. Furthermore, INFOSAN coverage reached 100% in the Region of the Americas, the European Region, and the Western-Pacific Region.

In 2019, the Global INFOSAN Strategic Plan 2020-2025 was presented at the Second Global Meeting of INFOSAN members. The plan outlines six objectives and provides a strategic vision for the future of the network. The INFOSAN Secretariat has been working since 2020 to achieve these objectives. The increase in demands for capacity building activities and the number of reported incidents to the INFOSAN Secretariat shows that INFOSAN is becoming an effective tool for information exchange during food safety emergencies, with active members sharing information promptly to mitigate negative impacts of unsafe food on public health.

During the COVID-19 pandemic, the INFOSAN Secretariat played an important role in communicating information and updates on COVID-19 and food safety to its members. This has been achieved by launching a call for questions on food safety and COVID-19, followed by a series of webinars for INFOSAN members to introduce the FAO/WHO guidance documents on food safety and COVID-19.

This INFOSAN Activity Report provides an overview of the major events, activities, and information products relating to INFOSAN in 2020-2021.

Introduction

The publication of the WHO's estimates of the global burden of foodborne diseases in 2015¹ provides a stark reminder of the high morbidity and mortality wrought by preventable foodborne illnesses around the world. With our increasingly globalized food supply, contaminated food produced in one country can easily cause illness in other countries, where failures in food safety systems result in unsafe food entering the international market.

The total productivity loss associated with foodborne disease in low- and middle-income countries is estimated to cost \$95.2 billion USD per year, and the annual cost of treating foodborne illnesses is estimated at \$15 billion USD². Other costs, though harder to quantify, include losses of farm and company sales, foregone trade income, the health repercussions of consumer avoidance of perishable yet nutrient-rich foods, and the environmental burden of food waste.

INFOSAN has been connecting national authorities worldwide since 2004. Its goal has been to prevent the international spread of contaminated food and foodborne disease and strengthen food safety systems globally. This has been done by:

1. promoting the rapid exchange of information during food safety events;
2. sharing information on important food safety issues of global interest;
3. promoting partnership and collaboration between countries and networks; and
4. helping countries to strengthen their capacity to manage food safety emergencies.

Since its inception, the INFOSAN Secretariat has facilitated international communications between members during hundreds of food safety events, including 375 during the 2020-2021 biennium, over double the number of events dealt with in the previous biennium.

This INFOSAN Activity Report provides an overview of the major events, activities, and information products relating to INFOSAN in 2020-2021. The report highlights some achievements from the biennium, in the context of the INFOSAN Strategic Plan 2020-2025³. INFOSAN aims to be a member-driven network and thus a united and sustained effort must be made by all INFOSAN members for the Network to reach its full potential.



¹ Further reading: <https://www.who.int/activities/estimating-the-burden-of-foodborne-diseases>

² <https://www.worldbank.org/en/news/press-release/2018/10/23/food-borne-illnesses-cost-us-110-billion-per-year-in-low-and-middle-income-countries>

³ <https://www.who.int/publications/i/item/9789241516457>

INFOSAN activities

INFOSAN activities in the framework of the global strategic plan for INFOSAN 2020-2025

1 Detection and response to international food safety incidents and emergencies

1.1 INFOSAN incidents and emergencies

Summary Emergency activities

INFOSAN has been operational during 375 food safety events of international concerns, during the 2020-2021 biennium, representing the highest number of incidents since its launch.

The level of engagement by the INFOSAN Secretariat in each event during 2020 and 2021 varied depending on several factors including the severity of the public health impact, and the duration of the event. In some incidents, the INFOSAN Secretariat played a facilitating role, ensuring that affected members have access to each other's contact details and access to information such as distribution details of implicated products to their countries. In other cases, the INFOSAN Secretariat played an essential role in communicating information between members allowing them to identify the source of an ongoing outbreak of international concern.

Global analysis of INFOSAN incidents and emergencies

Overall, the INFOSAN Secretariat was involved in 375 events with international concern during the 2020-2021 biennium (see Appendices A and B). There were 212 events involving a biological hazard, 65 involving an undeclared allergen, 47 involving a physical hazard, 42 involving a chemical hazard, and nine involving an unspecified hazard.

For events involving a biological hazard, *Salmonella* spp. was most commonly predominant (86 events in 2020/2021). These were followed by *Listeria monocytogenes* (52), *Escherichia coli* (18), *Clostridium* spp. (15), Norovirus (8), Hepatitis A virus (7), *Bacillus* spp. (6), unspecified biological hazards (5), *Vibrio* spp. (5), *Shigella* spp. (2), *Staphylococcus aureus* (2), *Yersinia enterocolitica* (2), *Campylobacter* spp. (1), *Cronobacter* spp. (1), *Enterococcus faecalis* (1), Prions (1), *Pseudomonas* spp (1), and Rotavirus (1). With regards to undeclared allergen hazards, events involving milk (21) occurred the most frequently, other undeclared allergen incidents were peanuts (10), soy (9), eggs (8), gluten (3), mustard (3), cashew (2), hazelnuts (2), pistachio (2), sesame (2), shellfish (2), wheat (2), almonds (1), lactose (1), and walnuts (1). With regards to chemical hazards, events involving histamine occurred most frequently (19), other chemical hazards responsible for food safety events were methanol (7), ethylene oxide (2), patulin (2), acrylamide (1), amygdaline (1), clenbuterol (1), chlorpyrifos (1), extractable cyanide (1) hydronic acid (1), hydrogen peroxide (1), malachite green (1), Phytohemagglutinin (1), and Pyrrolizidine alkaloids (1) with one unspecified chemical incident. Lastly, with regards to physical hazards, events involving glass (20) occurred most frequently, other physical hazards were metal (10), plastic (9), bone (1), insects (1), rubber (1), and one undetermined foreign body.

The food categories most involved in the 375 events with international concern in 2020-2021 were fish and other seafood (65), followed by milk and dairy products (38), meat and meat products (36), and snacks & desserts (35).

For a Member State to be considered involved in an INFOSAN event, this means that:

- i. potentially contaminated food were possibly imported to or exported from that Member State; or
- ii. cases of foodborne illness linked to internationally distributed, contaminated food were reported in that Member State; or
- iii. international support is necessary to manage a food safety incident.

The 375 events in 2020-2021 involved Member States and territories from all WHO Regions. The affected Member States were distributed as follows: in the European Region 45 out of 53 Member States, followed by the African Region with 30 out of 53, the Region of the Americas with 29 out of 35, the Western Pacific Region with 22 out of 27, the Eastern Mediterranean Region with 18 out of 21, and the South-East Asia Region with 8 out of 11.

Most event notifications in 2020-2021 were reported to the INFOSAN Secretariat by the RASFF European Commission Contact Point (RASFF ECCP) (182) followed by INFOSAN

Emergency Contact Point (ECP) or Focal Point (150). Other notifications were made by WHO headquarters Event-based surveillance (14), WHO staff from the Regional Office for the Americas (AMRO) (12), WHO staff from the Regional Office for Europe (EURO) (9), the European Centre for Disease Prevention and Control (ECDC) (7), and FAO's Food Systems and Food Safety Division (ESF) (1).

Tables 1-8 provide an overview of food safety events during which INFOSAN was active, classified by region, food category, hazard, and source of notification in 2014 to 2021.

Table 1 - Food safety events by region*, 2014-2021

REGION	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 84 n (%)	2018 N= 84 EVENTS n (%)	2017 N = 44 EVENTS n (%)	2016 N = 40 EVENTS n (%)	2015 N = 37 EVENTS n (%)	2014 N = 40 EVENTS n (%)
African Region	47 (13%)	40 (13%)	14 (17%)	12 (14%)	9 (20%)	3 (7%)	5 (14%)	4 (10%)
Region of the Americas	53 (15%)	49 (16%)	47 (56%)	35 (42%)	26 (59%)	16 (40%)	17 (46%)	16 (40%)
Eastern Mediterranean Region	36 (10%)	22 (7%)	18 (21%)	18 (21%)	6 (14%)	1 (2%)	7 (19%)	3 (8%)
European Region	133 (38%)	122 (41%)	50 (60%)	45 (54%)	19 (43%)	22 (55%)	18 (49%)	25 (63%)
South-East Asia Region	20 (6%)	13 (4%)	12 (14%)	10 (8%)	5 (11%)	5 (12%)	7 (19%)	4 (10%)
Western Pacific Region	51 (17%)	53 (18%)	41 (49%)	51 (61%)	21 (48%)	12 (30%)	15 (41%)	22 (55%)

* Multiple regions are often involved in the same event



Table 2 - Food safety events by food category, 2014-2021

FOOD CATEGORY	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 84 n (%)	2018 N= 84 EVENTS n (%)	2017 N = 44 EVENTS n (%)	2016 N = 40 EVENTS n (%)	2015 N = 37 EVENTS n (%)	2014 N = 40 EVENTS n (%)
Alcoholic beverages	4 (2%)	4 (3%)	2 (2%)	-	1 (2%)	1 (2%)	1 (3%)	-
Animal feed	-	-	-	-	-	-	-	-
Cereals and cereal-based Products	6 (2%)	6 (5%)	2 (2%)	4 (4%)	2 (4%)	3 (7%)	2 (5%)	1 (3%)
Composite food	6 (2%)	7 (6%)	2 (2%)	-	-	-	2 (5%)	2 (5%)
Drinking water	2 (1%)	-	-	-	-	-	-	-
Eggs and egg products	-	1 (1%)	-	1 (1%)	2 (4%)	1 (2%)	-	2 (5%)
Fats and oils of animal and vegetable origin	2 (1%)	-	-	-	-	-	2 (5%)	1 (3%)
Fish and other seafood	46 (19%)	19 (15%)	9 (11%)	10 (12%)	11 (25%)	9 (23%)	7 (19%)	4 (10%)
Food additive	3 (1%)	-	-	-	-	-	-	2 (5%)
Foods for infants and small Children	1 (0%)	3 (2%)	1 (1%)	6 (7%)	3 (7%)	-	-	2 (5%)
Fruit and fruit products	13 (5%)	9 (7%)	-	9 (11%)	3 (7%)	2 (5%)	5 (14%)	2 (5%)
Fruit and Vegetable Juices	3 (1%)	1 (1%)	-	-	-	-	-	-
Herbs, spices and Condiments	24 (10%)	10 (8%)	9 (11%)	8 (9%)	2 (4%)	2 (5%)	2 (5%)	1 (3%)
Legumes and pulses	4 (2%)	7 (6%)	1 (1%)	-	3 (7%)	3 (8%)	-	-
Meat and meat products	26 (10%)	10 (8%)	9 (11%)	6 (7%)	4 (9%)	3 (8%)	5 (14%)	8 (20%)
Milk and dairy products	22 (9%)	16 (13%)	15 (18%)	8 (9%)	3 (7%)	3 (8%)	1 (3%)	3 (8%)
Non-alcoholic beverages	2 (1%)	-	-	2 (2%)	1 (2%)	-	1 (3%)	-
Nuts and oilseeds	16 (6%)	11 (9%)	6 (7%)	6 (7%)	2 (4%)	2 (5%)	-	2 (5%)
Products for special nutritional use	4 (2%)	3 (2%)	3 (4%)	2 (2%)	2 (4%)	1 (2%)	-	1 (3%)
Snacks, desserts, and other foods	24 (10%)	11 (9%)	7 (8%)	8 (9%)	3 (7%)	-	1 (3%)	3 (8%)
Starchy roots and tubers	1 (0%)	-	1 (1%)	-	-	-	-	-
Sugar and confectionary	6 (2%)	-	2 (2%)	5 (6%)	-	2 (5%)	1 (3%)	1 (3%)
Unknown	10 (4%)	2 (2%)	-	3 (3%)	-	3 (8%)	4 (11%)	2 (5%)
Vegetables and vegetable Products	23 (9%)	7 (6%)	6 (7%)	6 (7%)	2 (4%)	5 (12%)	3 (8%)	3 (8%)

Table 3 - Food safety events by hazard category, 2014-2021

HAZARD	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 84 n (%)	2018 N= 84 EVENTS n (%)	2017 N = 44 EVENTS n (%)	2016 N = 40 EVENTS n (%)	2015 N = 37 EVENTS n (%)	2014 N = 40 EVENTS n (%)
Biological	145 (58%)	67 (53%)	55 (65%)	56 (69%)	28 (64%)	30 (75%)	22 (59%)	25 (65%)
Chemical	24 (10%)	18 (14%)	4 (5%)	8 (8%)	7 (16%)	5 (12%)	7 (22%)	10 (25%)
Other	-	-	1 (1%)	-	-	-	-	-
Physical	31 (13%)	16 (13%)	18 (21%)	12 (13%)	1 (2%)	3 (8%)	4 (8%)	2 (3%)
Undeclared allergen	45 (18%)	20 (16%)	6 (7%)	5 (6%)	3 (7%)	-	3 (8%)	2 (5%)
Unknown	3 (1%)	6 (5%)	-	3 (3%)	5 (11%)	2 (5%)	1 (3%)	1 (3%)

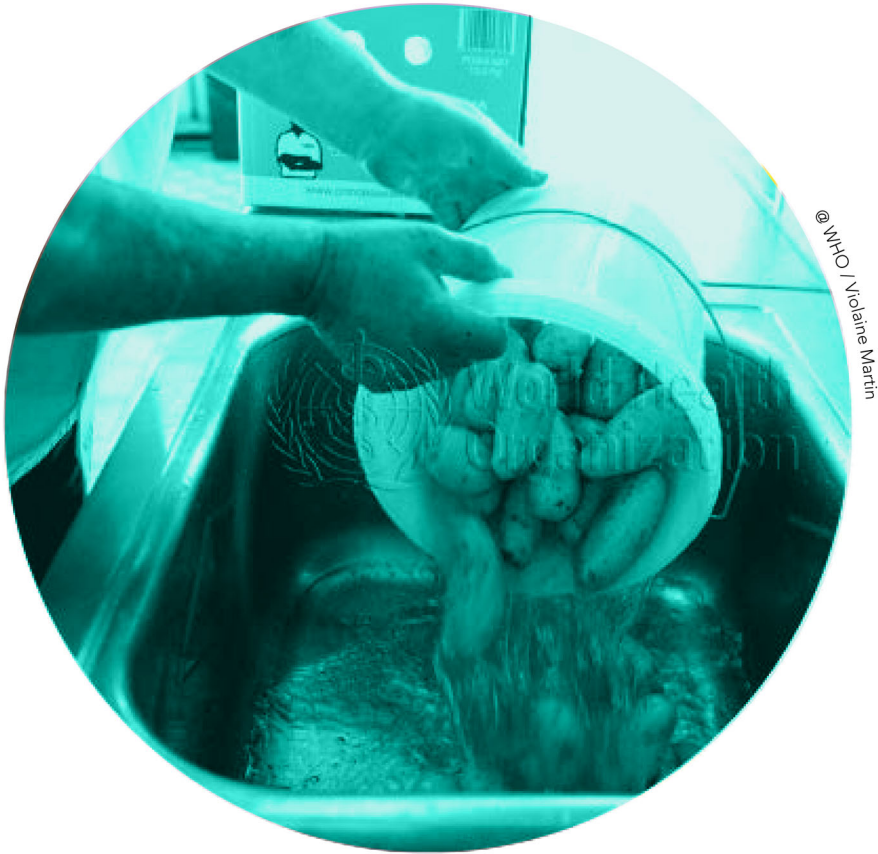


Table 4 - Food safety events involving biological hazards, 2014-2021

BIOLOGICAL HAZARD	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 55 n (%)	2018 N= 58 EVENTS n (%)	2017 N = 28 EVENTS n (%)	2016 N = 30 EVENTS n (%)	2015 N = 22 EVENTS n (%)	2014 N = 26 EVENTS n (%)
<i>Anisakis</i>	-	-	-	1 (2%)	1 (4%)	-	-	-
<i>Bacillus</i> spp.	3 (2%)	3 (4%)	1 (2%)	1 (2%)	-	2 (7%)	1 (5%)	2 (8%)
<i>Brucella</i> spp.	-	-	-	-	-	1 (3%)	-	-
<i>Campylobacter</i>	-	1 (1%)	-	-	-	2* (7%)	-	-
<i>Clostridium</i> spp.	9 (6%)	6 (9%)	2 (4%)	3 (5%)	4 (14%)	5 (17%)	4 (18%)	2 (8%)
<i>Cronobacter</i> spp.	-	1 (1%)	-	2 (3%)	1 (4%)	-	-	-
<i>Cyclospora cayetanensis</i>	-	-	1 (2%)	1 (2%)	-	1 (3%)	2 (9%)	-
<i>Escherichia coli</i>	12 (8%)	6 (9%)	9 (16%)	4 (7%)	4 (14%)	2 (7%)	1 (5%)	4 (15%)
<i>E. faecalis</i>	-	1 (1%)	-	-	-	-	-	-
Hepatitis A virus	7 (5%)	-	2 (4%)	3 (5%)	1 (4%)	3 (10%)	2 (9%)	1 (4%)
<i>Listeria monocytogenes</i>	40 (27%)	12 (18%)	14 (25%)	9 (15%)	5 (17%)	2 (7%)	3 (14%)	5 (19%)
Norovirus	4 (3%)	4 (6%)	4 (7%)	2 (3%)	1 (4%)	2* (7%)	3 (14%)	1 (4%)
Potential microbial contamination due to packaging defects	-	-	-	1 (2%)	-	-	-	-
<i>Pseudomonas</i> spp.	-	1 (1%)	-	1 (2%)	-	-	-	-
<i>Rhizopus oryzae</i>	-	-	-	-	-	-	-	1 (4%)
Rotavirus	-	1 (1%)	-	-	-	-	-	-
<i>Salmonella</i> spp	58 (40%)	28 (41%)	19 (34%)	24 (41%)	11 (39%)	10* (30%)	4 (18%)	6 (23%)
<i>Shigella</i> spp.	1 (1%)	1 (1%)	-	-	-	-	1 (5%)	-
<i>Staphylococcus aureus</i>	2 (1%)	-	-	1 (2%)	-	-	-	-
<i>Trichinella</i>	-	-	-	-	-	-	-	1 (4%)
Unknown	3 (2%)	2 (3%)	1 (2%)	1 (2%)	-	1 (3%)	1 (5%)	-
Contamination due to under processing	-	-	-	1 (2%)	-	-	-	-
<i>Vibrio</i> spp.	4 (3%)	1 (1%)	2 (4%)	1 (2%)	-	1 (3%)	-	1 (4%)
<i>Yersinia pseudotuberculosis</i>	2 (1%)	-	-	-	-	-	-	1 (4%)

* 1 event involved *Campylobacter*, *Norovirus* and *Salmonella* spp. in 2016

Table 5 - Food safety events involving chemical hazards, 2014-2021

CHEMICAL HAZARD	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 4 n (%)	2018 N= 7 EVENTS n (%)	2017 N= 7 EVENTS n (%)	2016 N= 5 EVENTS n (%)	2015 N= 8 EVENTS n (%)	2014 N= 10 EVENTS n (%)
Acrylamide	1 (4%)	-	-	-	-	-	-	-
Amygdaline	1 (4%)	-	-	-	-	-	-	-
Aflatoxin	-	-	-	-	1 (14%)	1 (20%)	-	-
Arsenic	-	-	-	1 (1%)	-	-	-	-
Atropine	-	-	-	-	-	-	-	-
Boron	-	-	-	1 (1%)	-	-	-	-
Chlorpyrifos	1 (4%)	-	-	-	-	-	-	-
Ciguatera toxin	-	-	1 (25%)	-	-	-	-	-
Clenbuterol	-	1 (6%)	-	-	-	-	-	-
Copper	-	-	-	1 ^a (1%)	-	-	-	-
Cyanide (extractable)	1 (4%)	-	-	-	-	-	-	-
Deoxynivalenol (DON)	-	-	-	-	-	-	1 (13%)	-
Dimethyl yellow	-	-	-	-	-	-	-	1 (10%)
Ethylene Oxide	1 (4%)	1 (6%)	-	-	-	-	-	-
Fipronil	-	-	-	-	1 (14%)	-	-	-
Heavy metals	-	-	-	-	-	-	1* (13%)	2 (20%)
Histamine	11 (48%)	8 (44%)	-	1 (1%)	-	1 (20%)	1 (13%)	-
Hydrogen cyanide	1 (4%)	-	1 (25%)	-	-	-	-	1 (10%)
Hydrogen peroxide	-	1 (6%)	-	-	-	-	-	-
Hydrogenated oils	-	-	-	-	-	-	1 (13%)	-
Iodine	-	-	-	2 (3%)	-	-	-	1 (10%)
Lead	-	-	-	2 ^a (3%)	-	1 (20%)	-	-
Malachite green	1 (4%)	-	-	-	-	-	-	-
Mercury	-	-	-	1 ^a (1%)	1 (14%)	1 (20%)	-	-
Methanol	3 (13%)	4 (22%)	1 (25%)	-	-	1 (20%)	1 (13%)	-
Mycotoxins	-	-	-	1 (2%)	-	-	-	-
Monosodium glutamate	-	-	-	-	-	-	1* (13%)	-
Oxedrine	-	-	-	-	-	-	-	1 (10%)
Oxyphenylbutazone	-	-	-	-	1 (14%)	-	-	-
Patulin	1 (4%)	1 (6%)	-	-	-	-	-	-
Paralytic shellfish toxin	-	-	-	-	1 (14%)	-	1 (13%)	-
Pesticide residues	-	-	-	-	-	-	-	2 (20%)
Phosphate	-	-	-	-	1 (14%)	-	-	-
Phthalates/ polycyclic aromatic hydrocarbons	-	-	-	-	-	-	1 (13%)	-
Phytohemagglutinin	-	1 (6%)	-	-	-	-	-	-
Pyrrrolizidine alkaloids	1 (4%)	-	-	-	-	-	-	-
Unknown	-	-	1 (25%)	-	1 (14%)	-	-	1 (10%)
Waste oil	-	-	-	-	-	-	-	1 (10%)

Table 6 - Food safety events involving physical hazards, 2014-2021

PHISICAL HAZARD	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 18 n (%)	2018 N= 11 EVENTS n (%)	2017 N = 1 EVENTS n (%)	2016 N = 3 EVENTS n (%)	2015 N = 3 EVENTS n (%)	2014 N = 1 EVENTS n (%)
Bone	-	1 (6%)	-	-	-	-	-	-
Choking hazard	-	-	-	1 (1%)	-	-	-	-
Dead lizard	-	-	-	-	-	-	-	1 (4%)
Glass	14 (45%)	6 (38%)	6 (17%)	3 (3%)	1 (100%)	-	2 (67%)	-
Insects	1 (3%)	-	-	-	-	-	-	-
Packaging material	-	-	-	-	-	1 (33%)	-	-
Plastic	-	3 (19%)	6 (17%)	-	-	1 (33%)	1 (13%)	-
Rodent infestation	-	-	-	1 (2%)	-	-	-	-
Rubber	1 (3%)	-	-	-	-	-	-	-
Metal	7 (22%)	3 (19%)	6 (17%)	7 (64%)	-	1 (33%)	1 (33%)	1 (100%)
Undetermined foreign body	2 (6%)	3 (19%)	-	-	-	-	-	-

Table 7 - Food safety events involving undeclared allergens, 2014-2021

UNDECLARED ALLERGEN	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 8 n (%)	2018 N= 5 EVENTS n (%)	2017 N = 3 EVENTS n (%)	2016 N = 0 EVENTS n (%)	2015 N = 3 EVENTS n (%)	2014 N = 2 EVENTS n (%)
Almond	1 (2%)	-	1 (12%)	-	-	-	2* (67%)	-
Cashew	1 (2%)	1 (4%)	1 (12%)	-	-	-	-	-
Celery	-	-	-	-	-	-	-	-
Egg	6 (13%)	2 (9%)	1 (12%)	-	2 (67%)	-	-	1** (50%)
Gluten	2 (4%)	1 (4%)	1 (12%)	-	-	-	-	-
Hazelnuts	1 (2%)	1 (4%)	-	-	-	-	-	-
Lactose	1 (2%)	-	-	-	-	-	-	-
Milk	15 (33%)	6 (26%)	1 (12%)	1 (20%)	-	-	1 (33%)	-
Mustard	1 (2%)	2 (9%)	-	-	-	-	-	-
Peanut	5 (11%)	5 (22%)	1 (12%)	2 (40%)	1 (33%)	-	2* (67%)	2** (100%)
Pistachio	1 (2%)	1 (4%)	1 (12%)	-	-	-	-	-
Sesame	1 (2%)	1 (4%)	-	-	-	-	-	1** (50%)
Shellfish	2 (4%)	-	-	2 (40%)	-	-	-	-
Soy	8 (17%)	1 (4%)	-	-	-	-	-	-
Walnut	-	1 (4%)	1 (12%)	-	-	-	-	-
Wheat	1 (2%)	1 (4%)	-	-	-	-	-	-

Table 8 - Source of notification of INFOSAN events, 2014-2021

SOURCE OF NOTIFICATION	2021 N= 248 n (%)	2020 N= 127 n (%)	2019 N= 84 n (%)	2018 N= 84 EVENTS n (%)	2017 N = 44 EVENTS n (%)	2016 N = 40 EVENTS n (%)	2015 N = 37 EVENTS n (%)	2014 N = 40 EVENTS n (%)
European Centre for Disease Prevention and Control (ECDC)	7 (3%)	1 (1%)	2 (2%)	6 (7%)	2 (5%)	-	2 (5%)	2 (5%)
European Commission's RASFF Contact Point (RASFF ECCP)	115 (46%)	66 (52%)	26 (31%)	29 (34%)	6 (14%)	-	3 (8%)	6 (15%)
FAO Food Safety and Quality (AGFF)	-	1 (1%)	1 (1%)	1 (1%)	-	-	-	-
INFOSAN Emergency Contact Point or Focal Point	91 (37%)	43 (34%)	45 (53%)	20	12 (27%)	10 (25%)	14 (38%)	9 (23%)
WHO headquarters event-based surveillance*	18 (7%)	7 (6%)	6 (7%)	20 (24%)	11 (25%)	15 (37%)	8 (22%)	6 (15%)
WHO Regional Office for Africa (AFRO)	-	-	-	1 (15%)	1 (2%)	-	-	-
WHO Regional Office for the Americas (AMRO)	11 (4%)	5 (4%)	1 (1%)	2 (2%)	7 (16%)	4 (10%)	5 (14%)	6 (15%)
WHO Regional Office for Europe (EURO)	6 (2%)	4 (3%)	3 (45%)	2 (2%)	5 (11%)	10 (25%)	5 (14%)	8 (20%)
WHO Regional Office for the Western Pacific (WPRO)	-	-	-	2 (2%)	-	1 (3%)	-	3 (8%)
WHO Regional Office for the Eastern-Mediterranean	-	-	1 (15%)	1 (1%)	-	-	-	-

* Includes surveillance activities conducted in different departments of the Health Security and Environment Cluster

More information on the events, date of identification, implicated countries, types of sub-hazards, hazards, food categories and source of information could be found in Annex 1 (for 2020) and Annex 2 (for 2021).

Events in Focus

Multi-country outbreak of Listeriosis linked to enoki mushrooms imported from the Republic of Korea

During the first half of 2020, the INFOSAN Secretariat followed reports of cases of listeriosis linked to the consumption of enoki mushrooms from the Republic of Korea (ROK) in the United States of America (USA) (n=36), and in Canada (n=6), which were related by whole genome sequencing (WGS). The Canadian Food Inspection Agency (CFIA) pursued a food safety investigation and collected enoki mushroom samples in which *Listeria monocytogenes* were detected. These findings subsequently triggered the recall of the implicated products in Canada in March 2020. The *L. monocytogenes* isolated from these samples were genetically associated with the cluster of cases.

In addition, the INFOSAN Secretariat was made aware of six listeriosis cases in Australia, notified between October 2017 and March 2020. The cases had been linked through phylogenetic analysis of WGS to the USA outbreak of listeriosis which was related to the consumption of enoki mushrooms imported from ROK (the USA cases were reported between 2016 and 2019). Investigations in Australia identified enoki mushrooms imported from a single supplier from the ROK, which were also identified as having been distributed to the USA. These were confirmed to be contaminated with the outbreak sequence of *Listeria monocytogenes* through phylogenetic analysis. As a result, a recall of the implicated enoki mushrooms was implemented in Australia. Australia also reminded consumers of the risks of listeriosis and more specifically advised that enoki mushrooms should be cooked before consumption.

Through engagement with the ECP in ROK, the INFOSAN Secretariat was made aware of the results of the national investigations regarding the international distribution of the



implicated enoki mushrooms. The ECP in ROK confirmed that implicated enoki mushrooms were distributed by a single exporter to Australia, Canada, Hong Kong (SAR China), Indonesia, Myanmar, the Netherlands (Kingdom of the), the Philippines, Singapore, and the USA. A series of actions to mitigate the risk were implemented by authorities in ROK, such as food safety education to farmers and the inclusion of a notice on the package of enoki mushrooms to alert consumers of the need to cook the products before consumption.

The INFOSAN Secretariat notified the ECPs in recipient countries of the distribution of the implicated enoki mushrooms and referred them to the WGS details that had been previously shared on the INFOSAN Community Website (ICW) to assist them in the identification of related clinical or food isolates that may have been previously identified. The INFOSAN Secretariat was informed of appropriate measures implemented in such countries to mitigate the risk and identify possible cases linked to the outbreak. No further cases were reported to the INFOSAN Secretariat.



Multi-country outbreak of *Salmonella* Braenderup potentially linked to the consumption of melons

A multi-country outbreak of *Salmonella* Braenderup that affected 12 countries and recorded over 300 cases was identified in 2021. The source of the outbreak was determined to most likely be Galia melons from Honduras. In total, over 300 cases were reported in 12 WHO and FAO Member States within the European Region and the USA.

During the outbreak, with the support of the ECP in Honduras, the INFOSAN Secretariat provided distribution details of the

implicated melons from Honduras to the recipient countries which enabled them to implement appropriate measures. The ECP in Honduras also provided the INFOSAN Secretariat with a detailed report including a complete risk assessment of the possible hazard points identified at the implicated facility in Honduras, as well as a complete study on the corrective and prevention actions that were taken at the facility. The report confirms that a positive sample of *Salmonella* Braenderup ST22 that matches the outbreak strain (confirmed through WGS), has been detected on the surface of the washing tank in one of the Honduran facilities where Galia melons are packed. The washing tank has been confirmed to be the source of the contamination. Corrective measures were taken on-site to prevent future contaminations.

According to the competent authority in Honduras, the cause of the outbreak cannot be confirmed to be Galia melons from Honduras, since a new case was reported in July 2021 in Denmark, and no Galia melons from Honduras were exported during that period.

The international dimension of an outbreak of such a foodborne disease underlines the importance of active participation in INFOSAN. Through strong international collaboration between the countries involved and early exchange of information (including WGS), it was possible to identify a potential source for this outbreak. During this outbreak, the INFOSAN Secretariat ensured that information on the different countries' investigations was rapidly shared through INFOSAN, which enabled the swift implementation of measures to mitigate the potential risk.

1.2 Working together to manage international food safety emergencies

• Collaboration with other regional food safety networks



The European Commission - Rapid Alert System for Food and Feed (EC-RASFF)

Created in 1979, the Rapid Alert System for Food and Feed (RASFF) enables information sharing between its members who pertain to the European Union Member States, national food safety authorities, European Commission, the European Food Safety Authority (EFSA), Norway, Liechtenstein, Iceland, and Switzerland. The information exchanged through RASFF can lead to the implementation of appropriate risk management measures (e.g., recalls of implicated products) and to initiate investigations on particular food safety issues.

In recognition of the importance of information sharing, the INFOSAN Secretariat partnered up with RASFF to

facilitate the exchange of information concerning food safety emergencies of international concern, beyond the RASFF Member States. Several efforts have been conducted to align membership between RASFF and INFOSAN, to standardize the process of information sharing and avoid confusion and the burden of double reporting.

Collaboration with the RASFF has been strengthened throughout this biennium. Several discussions were organized that allowed the INFOSAN Secretariat and the RASFF team to better coordinate the exchange of information during food safety emergencies. Discussions are expected to be continued to further align coordination and support initiatives that benefit both programs.



The European Food Safety Authority's (EFSA) Emerging Risks Exchange Network (EREN)

The European Food Safety Authority (EFSA) networks with Member States, the European Union (EU), and international inter-governmental agencies including WHO and FAO on exchanging data, methodologies, and lessons learned on emerging risks through its Emerging Risks Exchange Network (EREN). The main goals are to facilitate the harmonization of assessment practices and methodologies, enhance the exchange of information and data between EFSA and Member States, and achieve synergies in risk assessment activities. As an observing member of EREN, the INFOSAN Secretariat participated in two EREN meetings in 2020 and two in 2021. It has been agreed between the INFOSAN Secretariat and the EREN Secretariat that in the context of non-emergency emerging issues, EREN can serve as an information provider to members of INFOSAN on medium- or longer-term emerging risks. Likewise, issues raised by INFOSAN members can be channelled to EREN for their consideration to provide perspectives from beyond Europe.



Association of Southeast Asian Nations - Rapid Alert System for Food and Feed (ASEAN-RASFF)

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore, and Thailand. Then Brunei Darussalam joined followed by Viet Nam, Lao People's Democratic Republic, Myanmar, and Cambodia, making up

what is today the ten Member States of ASEAN. ASEAN Rapid Alert System for Food and Feed (ARASFF) was established in 2007 as a food safety information exchange system for ASEAN Member States (AMSs). The initiative involves different agencies, working in the food safety area to exchange information and transmit a notification to the ARASFF system. The AMSs nominated their National Contact Points (to be referred to as NCP) as individuals officially designated by the respective government through competent authorities to represent AMS in the ARASFF, including transmitting a notification to the system and being present at the ARASFF forum. In order to strengthen INFOSAN in that region, several workshops have been conducted to align membership between ASEAN RASFF and INFOSAN. In 2020 and 2021, several exchanges took place between INFOSAN and the ARASFF, among them, INFOSAN started an initiative to designate the ASEAN NCP as INFOSAN ECPs and INFOSAN Focal Points and continues exploring opportunities for the organization of joint capacity development trainings.

1.3 Expansion of INFOSAN work on food safety emergencies and incidents

The increased activity of the Network is likely due to several factors, including general increasing awareness of risks in food to public health; efforts made by the Secretariat following the Second Global Meeting of INFOSAN in 2019 and through other capacity building activities that strengthened Member States' engagement with the Network; and an increased reporting of food safety issues associated with undeclared allergens/ingredients.

Over the years 2020 and 2021, the INFOSAN Secretariat facilitated numerous webinars and workshops with Member States and at the Regional Level to strengthen food safety emergency response and informed them on how to use the available resources of the Network. Such activities, alongside an increased capacity at the INFOSAN Secretariat, enabled wider coverage and more efficient response to food safety events, thereby allowing the Secretariat to better adapt to Member States' requests and needs as they arise.

Finally, stronger collaboration with key partners during international food safety has also impacted the number of incidents communicated through INFOSAN.



2 Building capacity for food safety response globally

2.1 INFOSAN regional and sub-regional meetings

Regional webinar series for INFOSAN members in Africa, 2020 & first INFOSAN regional meeting in Africa, 2021

The INFOSAN Secretariat in collaboration with the WHO and FAO regional offices in Africa jointly organized in 2020 and 2021 online regional events for INFOSAN members in Africa. During these events, INFOSAN members from Member States in the WHO African Region were provided with an update on the different activities undertaken to strengthen INFOSAN in the region and received further orientations to best utilize the network, including the new ICW. The meetings also provided a forum for members to share their feedback with the INFOSAN Secretariat.

As part of the first INFOSAN Regional Meeting in Africa, celebrated online in 2021, Member States discussed the key barriers identified during the Second INFOSAN Global Meeting that was held in 2019 and reviewed the challenges that are still hindering active participation in INFOSAN. The meeting allowed the identification and agreement on practical actions to enhance INFOSAN in Africa, including ways to improve the African network for INFOSAN members. In consequence, Member States also agreed to develop key actions to strengthen INFOSAN at the national level for 2022-2023.

An internal meeting report was written and published on the ICW, summarizing the points discussed during the Regional Meeting for members in Africa 2021.

INFOSAN regional webinar for member states in Europe and Central Asia, 2020

In November 2020, the Secretariat supported the organization of a training webinar for Member States in Europe and Central Asia with regional counterparts at FAO and WHO. During the webinar, it was highlighted that Joint External Evaluations (JEE) conducted in the region under the Monitoring and Evaluation Framework of the International Health Regulations emphasized the need to strengthen food safety emergency response systems, including countries' active participation in INFOSAN. Participants were therefore familiarized with INFOSAN and how it can be used to facilitate the rapid exchange of information between national authorities and across borders during food safety incidents

and emergencies. Countries' perspectives were shared by INFOSAN members from Portugal and North Macedonia regarding their use of and engagement with INFOSAN. The important working arrangement between INFOSAN and RASFF was also highlighted. The Secretariat will continue to work with partners and Member States in the region to strengthen food safety and bolster active participation in network activities.

INFOSAN regional meeting for members in Asia, 2021

In December 2021, a virtual INFOSAN regional meeting to strengthen INFOSAN in Asia was organized jointly by FAO, WHO HQ, and WHO Regional Office for the Western Pacific, with the support of the Ministry of Food and Drug Safety of ROK. INFOSAN members from 16 Member States in the region attended the meeting to discuss how to enhance participation in the network for the region. Member States also reflected on technical topics and shared national insights on foodborne disease surveillance. The meeting also followed up on the challenges to active participation in INFOSAN for the Asian region. In this context, the meeting also served to discuss a project to set an INFOSAN Strategic Plan and Members' Guide for Asia. This initiative would intend to serve as a functional reference guide to members in the region, including also current challenges and strategic actions to address them. Finally, Member States in the region were encouraged to develop key actions to implement the Strategic Plan for 2022.

An internal meeting report was written and published on the ICW, summarizing the points discussed during the Regional Meeting for members in Asia 2021.

Seventh and eighth regional meetings for strengthening INFOSAN in the Americas, 2020 and 2021

In December 2020, the Secretariat, and colleagues from the Pan-American Health Organization (PAHO) and the FAO Regional Office for Latin America and the Caribbean held the seventh Regional Meeting of INFOSAN members in the Americas, hosted virtually by Argentinian authorities. Network members from across the region joined the online meeting to review achievements and challenges faced during the last year and highlight progress in several technical areas of particular interest in the Americas. For example,

colleagues from Guyana elaborated on their efforts to coordinate food safety activities across sectors and between agencies at the national level and reflected on a recent emergency communication simulation exercise conducted by the Secretariat. During the meeting, INFOSAN members from Argentina, Brazil, Canada, and the USA shared their experiences concerning COVID-19 and super-spreader incidents in the food sector and described the various impacts on the food chain. Finally, members from Argentina, Mexico, and the Caribbean Public Health Agency provided an overview of their activities related to the use of WGS⁴ for tackling antimicrobial resistance in the food sector⁵.

Furthermore, the eighth Regional Meeting to Strengthen INFOSAN in the Americas took place online in December 2021. The meeting was jointly organized by the WHO and PAHO, in collaboration with the FAO. Participants in the meeting were the ECPs and Focal Points from 30 countries in the region. During the meeting, INFOSAN members in the Americas had the opportunity to receive updates on the different activities performed by the network over the past year. A detailed review of the implementation of the regional strategy for the Americas was presented, including indicators concerning response to food safety emergencies and INFOSAN membership of Member States in the region. Member States were encouraged to continue implementing the Regional Strategy and seek support from the INFOSAN Secretariat to achieve the goals set in the strategy. Member States learned about national experiences on foodborne disease surveillance and reflected on the interactions of the topic with INFOSAN for the region.

An internal meeting report was published on the ICW, summarizing the points discussed during the Regional Meeting for members in the Americas 2021.

Sub-regional training on the use of risk analysis in the response to food safety emergencies in the Western Balkans, 25–26 November 2021⁶

To improve Member States' capacities in the Western Balkan to better respond to food safety emergencies; a two-day workshop was conducted in Durres, Albania in November 2021. The main aim of the workshop was to support countries/territories to apply risk analysis principles and procedures in the response to food safety emergencies. During the workshop, each country/territory presented its current food safety systems, including challenges and gaps. This was followed by technical presentations from the WHO

⁴ <https://www.who.int/news/item/27-01-2021-infosan-quarterly-summary-2020-4#cms>

⁵ <https://apps.who.int/iris/handle/10665/255747>

⁶ <https://apps.who.int/iris/bitstream/handle/10665/352315/WHO-EURO-2022-4797-44560-63125-eng.pdf?sequence=1&isAllowed=y>

Regional Office for Europe, the INFOSAN Secretariat, the CFIA, the Federal Office of Consumer Protection and Food Safety of Germany (BVL), and the Directorate-General for Health and Food Safety of the European Commission to share experiences, best practices and tools for the use of food safety risk analysis principles during food safety emergencies. Among the challenges highlighted by different countries is enhancing cooperation between the different food safety agencies and nominating focal points in all the line ministries and food safety stakeholders, cross-border information sharing, joint investigation, and response to food safety emergencies. The training concluded with individual discussions for each country/territory on identifying actions to improve response to food safety emergencies. Participants acknowledged the importance of INFOSAN to rapidly share information during food safety emergencies and recognized the importance of designating INFOSAN members in the different agencies involved in responding to food safety emergencies.



@ WHO

Virtual INFOSAN workshop on risk communication during food safety emergencies, 16–17 September 2021

This virtual workshop was organized by the INFOSAN Secretariat, in collaboration with members in Cabo Verde in Africa, to strengthen food safety risk communication, in particular during emergencies, including communications with international partners and INFOSAN. The workshop brought officials from each of the relevant national authorities involved in food safety risk communication in Cabo Verde and Portuguese-speaking INFOSAN members in the African Region. The workshop included a technical background session provided by FAO and a real-life example of mechanisms for risk communication at the national level with a comprehensive presentation by the ECP in Brazil explaining the communication risks through their national network. The outcome of the workshop was an improved communication mechanism through better national coordination across sectors in Cabo Verde.



@ WHO

Capacity building workshop on rapid response during food safety crises for South-East Asian member states, 08-09 October 2020

In October 2020, the INFOSAN Secretariat supported a virtual capacity building workshop on rapid response during food safety crisis, coordinated by the National Agency of Drug and Food Control in Indonesia with several international experts' support. Participants included INFOSAN members and other food safety professionals from Member States belonging to ASEAN. Using a virtual classroom, facilitators and participants connected from more than a dozen countries to exchange ideas and learn from each other's experiences. Participants reviewed the principles of food safety emergency response plans, risk communication during food safety crisis, and the roles and responsibilities of INFOSAN members during the coordination of an international food safety emergency response. FAO shared with participants the experience, operational aspects, and insights related to the development of an emergency response plan from another region.

Supporting capacity building initiatives in the South-East Asian Region

On 18-22 October 2021, the Mekong Institute organized a Regional Training Program on Food Safety Emergencies in the Supply Chain. The objectives of this training were to increase the understanding of food safety emergency management, to provide practical tools and approaches to improve the response to food safety emergencies, and to encourage the development of a national food safety emergency response plan. The INFOSAN Secretariat provided support to the training by introducing an overview of global food safety outbreaks and incidents, elaborating on the importance for Member States to actively participate in INFOSAN to rapidly disseminate information to allow the implementation of risk management measures in other countries.

On 25-28 October 2021, the INFOSAN Secretariat participated in a virtual Regional Roundtable Meeting: Advancing the Implementation of the Framework for Action on Food Safety with the South-East Asia Region. The INFOSAN Secretariat presented an overview of the alert and notification of food safety incidents in the region, including a real-life example to highlight the importance of international collaboration to manage international outbreaks of foodborne diseases. The INFOSAN Secretariat looks forward to continuing to support Member States in the South-East Asian Region to strengthen the network in the region.



2.2 INFOSAN country workshops

Kuwait national virtual INFOSAN workshop 28-29 September 2020

In September 2020, with support and initiative from the INFOSAN members in Kuwait, the first virtual INFOSAN workshop was held over two days, with participants from several national agencies involved in food safety in Kuwait. The workshop allowed INFOSAN members in Kuwait to improve their understanding of ways in which food safety incidents are identified, responded to and communicated in their country.

Guyana virtual table-top simulation exercise, 04 December 2020

In 2020, the INFOSAN Secretariat facilitated an online table-top simulation exercise for INFOSAN members in Guyana. The workshop gathered stakeholders in Guyana involved in various areas related to food safety to sensitize them to the activities of INFOSAN and to test their capacities to communicate crucial information during a food safety emergency.

Upon conclusion of this workshop, participants were better informed about INFOSAN and gained a deeper understanding of their roles and responsibilities as network members.

Morocco: introductory webinar 20-21 April 2021

With the Moroccan Ministry of Health, the heads of regional epidemiological surveillance, public health services, and the regional focal points for environmental health in Morocco, the INFOSAN Secretariat organized an introductory webinar to present the Network, clarify the roles of INFOSAN members, and create a collective understanding on how to actively participate and contribute to the Network. The webinar was a success and encouraged the designation of new members in Morocco.

Cameroon: workshop 06–07 June 2021

On 06 and 07 June 2021, the INFOSAN Secretariat organized a workshop with the Ministry of Mines, Industry, and Technological Development in Cameroon, in collaboration with the FAO and WHO Regional Offices in Africa. The overall objective of this workshop was to strengthen food safety emergency response in the country by improving the participation and engagement in INFOSAN from relevant national authorities. During the workshop, participants covered the following topics: defining frameworks for responding to emergencies; proposing crisis management procedures related to INFOSAN; and evaluating the food crisis systems in Cameroon including information management systems. As a result, a draft national INFOSAN/IHR communication protocol was prepared with the collaboration of all relevant national sectors.

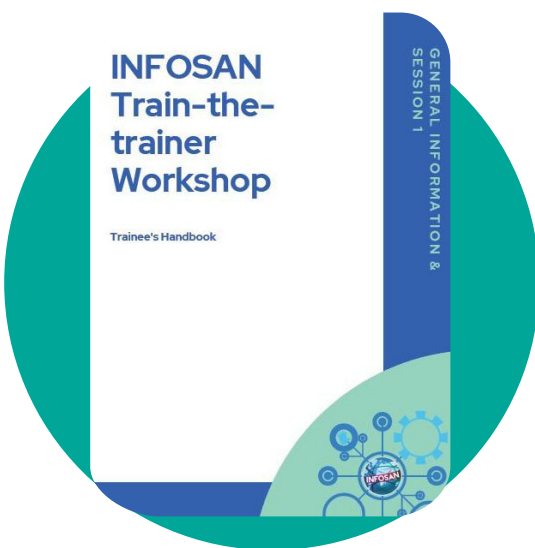
Senegal: simulation exercise as part of a national workshop, 23-24 June 2021

With the FAO and WHO Regional Offices in Africa, the INFOSAN Secretariat organized a national workshop with INFOSAN members in Senegal, held on 23–24 June 2021. This virtual workshop included a simulation exercise and brought together representative officials from each of the relevant national authorities involved in food safety in Senegal. The objective of the workshop was to identify priorities and develop actions to strengthen the national INFOSAN network, build capacity for increased country participation in global and regional INFOSAN activities, and improve national coordination and communication mechanisms between sectors during food safety emergencies.

Codex Advocacy workshop “Achieving leadership in the Codex Process” with Bhutan

An in-person Codex Advocacy Workshop took place on 20–22 September 2021 in Punakha, Bhutan. The workshop was organized under the Codex Trust Fund by Bhutanese authorities, WHO Regional Office for South-East Asia, and the FAO Regional Office for Asia and the Pacific (RAP). The workshop counted on the participation of experts from WHO Regional Office for South-East Asia, FAO HQ and RAP, the Food Safety and Standards Authority of India, Bhutan Agriculture, the Food Regulatory Authority (Ministry of Agriculture and Forests), and the INFOSAN Secretariat. The INFOSAN Secretariat facilitated a presentation to raise awareness of the objectives of the Network and its activities during the management of international food safety emergencies, and those activities are undertaken to strengthen countries' capacities to respond to such emergencies.

2.3 INFOSAN Train-the-trainer workshop



2.3.1 Background

With each passing year, the number of registered INFOSAN members has been steadily increasing, with a six-fold growth since 2004 to the current number of more than 800 members around the world. Such growth is indicative of the increasing countries' awareness and interest and the importance of the Network. This highlights the need for additional resources to ensure that members are supported and understand their roles and responsibilities. As the Network expands its membership, the need for training also increases. To meet this need, the INFOSAN Secretariat, with support from the CFIA has designed and organized an INFOSAN train-the-

trainer program. The program aims to increase the human resources available to train INFOSAN members, online and in-person. The train-the-trainer model has evolved from concepts of adult learning theory and diffusion of innovation. It reflects the idea that people who train others recall most of what they teach, and that people better learn new information through trusted networks.

2.3.2 Target area & beneficiaries

The program took place over four days and was delivered by the INFOSAN Secretariat for selected trainers, to get acquainted with the training curriculum and extensive references and resources related to the training program. Benefits of the train-the-trainer approach for trainers included enhanced skills and knowledge, mastery of curriculum material, and strategies and concepts of knowledge transfer to community members. Benefits for trainers also included an opportunity to engage and exchange with other members from different countries as well as contributing to INFOSAN community development. Building on the skills and experiences of the members would increase community knowledge, commitment, and understanding, as well as the opportunity to engage in a practical exchange of information, resources, and other hands-on activities related to INFOSAN with a particular focus on strengthening capacities to prevent and manage food safety incidents.

2.3.3 Objective

Train 12 committed and capable INFOSAN members to be placed on a roster and engaged in the future online or in-person targeted training of other INFOSAN members on a range of topics, including INFOSAN roles and responsibilities and key principles for international foodborne disease outbreak investigation and food safety emergency response.

2.3.4 Anticipated outcomes

Improvements to the understanding of INFOSAN members' roles and responsibilities, making them more active participants within the community of practice and more responsive and efficient during food safety emergencies, globally.

2.3.5 Call for applicants, selection process and selected candidates

In February 2020, the INFOSAN Secretariat issued a call for applications for the INFOSAN Train-the-Trainer workshop. Twenty-nine applications were received from members from all WHO and FAO Regions.

Based on the above criteria, 12 INFOSAN members from 12 different countries were selected:

Country	Last Name	Name
Bangladesh	Hossain Sarker	Mohammad Arafat
Bhutan	Bidha	Gyem
Cabo Verde	Santos	Edson
Ecuador	Pinoargote Chang	Milton
Egypt	Mostafa Zalook	Enas
Jamaica	Cooper	Colin
Madagascar	Ralison	Charles
Mongolia	Amar	Onongoo
Nigeria	Edwards	Eva
Romania	Neagu	Monica Mariana
Sudan	Mustafa	Amani
Tunisia	Gharbi	Nesrine

The sessions were facilitated by the INFOSAN Secretariat with the support of four expert INFOSAN members:

Country	Last Name	Name
Chile	Varela Maino	Diego
Canada	Locas	Annie
New Zealand	Bishop	Jenny
United Arab Emirates	Al Natour	Fadi

2.3.6 Launch of the INFOSAN Train-the-trainer workshop

In September 2021, the INFOSAN Secretariat, in collaboration with the CFIA, began the development of the workshop which took place over four days on 13, 20, and 27 October and 3 November 2021. On the first day, the INFOSAN Secretariat welcomed the INFOSAN Ambassadors and opened the workshop. A series of presentations were conducted by the INFOSAN Secretariat regarding an overview and general background on INFOSAN, the INFOSAN Members' Guide, and a real-life case study that was presented with the support of Dr Fadi Nasr Radwan Al Natour from ADAFSA-UAE. On the second day of the workshop, the INFOSAN Secretariat presented the available tools that could be used by the members to facilitate the exchange of information during a food safety incident. For that purpose, Ms Jenny Bishop (INFOSAN ECP in New Zealand) presented the IHR/INFOSAN communication template and gave a detailed approach on how to develop and use the template to communicate with the IHR NFP. An overview of the new ICW was presented by Dr Diego Varela, the INFOSAN Focal Point in Chile, who explained to the trainees how to fully use the available functions of the website not only during emergencies but also during non-urgent situations. The

INFOSAN Secretariat presented a decision tree showcasing the decision process that needs to be considered when reporting to the INFOSAN Secretariat and/or IHR. On the third day, the INFOSAN Secretariat gave the trainees an overview of the various publications and resources that they can use during their future workshops, such as the activity reports, the quarterly summaries, the INFOSAN Secretariat Strategic Plan 2020-2025, the meeting report of the Second Global meeting of the FAO/WHO International Food safety Authorities Network that took place in December 2019, and several WHO/FAO joint publications. The presentation was followed by an interactive session on an INFOSAN case study presented by Dr Annie Locas (CFIA – INFOSAN Focal Point in Canada) including Canada's experience concerning INFOSAN. The third day concluded with a presentation on the INFOSAN Strategic plan for 2020-2025, presented by Dr Eleonora Dupouy (FAO INFOSAN Secretariat). On the last day of the program, the trainees were given the floor to present several topics themselves as a practice for future presentations. The topics were: IHR/INFOSAN communication template and two real-life case studies on INFOSAN in action. The program concluded by assigning the title "Ambassadors" to the trainees and informing them of future collaborations.

The INFOSAN Secretariat would like to extend its sincere gratitude to the CFIA for the financial and technical support provided for this workshop.

2.4 Dissemination of FAO/WHO resources

• Resource spotlight Series

One of INFOSAN's objectives is to share technical information on important food safety aspects and issues of global interest. To provide some structure to this activity, the INFOSAN Secretariat launched the "Resource Spotlight" series in 2019 to highlight resource material from FAO and/or WHO related to food safety. Each month, publications are highlighted for members by indicating the purpose of the resource, the target audience, as well as the languages in which the material is available.

This initiative has been useful to strengthen the engagement between INFOSAN members and the INFOSAN Secretariat, allowing them to identify needs for trainings or translation of relevant documents.

2.5 INFOSAN discussion groups

Following input from several INFOSAN members on the need to maintain a working group with the members that are most often involved in food safety incidents communicated through INFOSAN, and in line with the INFOSAN Strategic Plan 2020-2025, the INFOSAN Secretariat started a plan to host a series of thematic discussion groups with these most frequently engaged members. The INFOSAN Discussion Group (DG) aims to increase the active participation of members, to share common ideas and regulatory approaches to better participate in the network, and to offer a resource on identified topics of high interest to inform and support food safety authorities across countries (e.g., buddying system, etc.)

The first meeting of the DG was held online in two sessions on 28 May and 12 June. The first DG identified eleven themes that are critical for the entire network and agreed to create clear and tangible outputs which at a later stage should be shared with the entire INFOSAN network.

The second and third meetings of the INFOSAN DG were held online in August and September 2020. For the second session, participants discussed the topic of food recalls in the international context: the roles and responsibilities of food safety competent authorities and food business operators, effective management, and communication with stakeholders, including consumers. During the discussion, challenges and opportunities from a national perspective on the implementation of food recalls effectively were addressed. A series of recommendations were also developed, including the proactive notification to INFOSAN of international food recalls.

During the third session, the group discussed allergens in food, presenting their experience when dealing with allergen issues, including for instance national regulatory frameworks, among others. The participants exchanged their experience in allergen detection methods and approaches to setting safe threshold levels of allergens in food.

The fourth working group held on 25 and 30 November 2020 during the COVID-19 pandemic focused the discussion on various approaches to food safety risk management and communication in a crisis context.

The fifth working group was held on 22 and 24 March 2021 and it focused on food fraud and food authenticity. This working group explored specific case studies, regulatory regimes and jurisdictions of members, identification, priorities and surveillance, and the impact of COVID-19 on food fraud incidence.

A session held on 22 and 24 November 2021 was devoted to food/dietary supplements. The participants converged on the need for harmonization and standardization of food supplements classification and terminology as well as for exploring pathways for the development and adoption of improved global safe food supplements standards.

3 The INFOSAN community website

In 2012, the first ICW was launched. Over time its features became outdated, so to encourage the important collaboration that members expect, and enable greater sharing of important food safety information. Over 2020, through the INFOSAN member survey, the Secretariat gained a better understanding of how members use the ICW and how it can be improved to enhance information sharing. The information collected, together with the experience of members of the Secretariat, provided numerous innovative ideas which guided the development of the new ICW.

On 5 July 2021, the INFOSAN Secretariat successfully launched the new, modernized ICW and made it available to the members. It hosts new features that members can use to report and review international food safety incidents through improved online tools, such as a comprehensive member database so that INFOSAN members across the globe can contact each other, and a modern, user-friendly interface.

The ICW continues to be the most effective tool for the network to disseminate information during food safety emergencies and to engage globally the representatives of food safety competent authorities in on-line discussion forums on topics of high professional interest.

4 Engagement of INFOSAN members

4.1 INFOSAN membership overview

Membership in INFOSAN is voluntary and is restricted to representatives from national and regional government authorities with a stake in food safety. Each member should be officially designated through a letter issued by such national authorities. To foster multisectoral collaboration, the ideal structure of INFOSAN membership at the national level should be characterized by a single INFOSAN ECP (designated by the government authority responsible for coordinating national food safety emergency response activities), and additional INFOSAN Focal Points from each of the various government sectors involved in food safety.

Since its launch in 2004, 188 Member States have joined INFOSAN. In addition, some Associate Member States and overseas areas/territories of Member States have also

designated INFOSAN members⁷. Sustained efforts at the Secretariat are ongoing to encourage existing members to remain active and engaged and to advocate for all 194 members of WHO and FAO to join INFOSAN.

4.2 Geographical distribution of membership

INFOSAN membership is maintained and managed through the ICW. Therefore, only the members registered on the ICW are considered as active members of the Network.

Table 9 displays the number of Member States by region⁸, with an INFOSAN ECP registered on the ICW as of the end of 2021, compared to previous years. As of the end of 2021, 182 (94%) of 194 WHO and FAO Member States have an ECP registered, representing a 10-point increase during the 2020/2021 biennium. INFOSAN membership was particularly enhanced in the African and European Regions during this period.

Table 9 - Member states and associate members with an INFOSAN ECP registered on the ICW by region from 2017 to 2021

REGION	Number of Member States in the Region	2021, n (%*)	2020, n (%*)	2019, n (%*)	2018, n (%*)	2017, n (%*)
African Region	47 Member States	42 (89%)	40 (85%)	38 (81%)	37 (78%)	36 (77%)
Region of the Americas	35 Member States	35 (100%)	35 (100%)	35 (100%)	33 (94%)	32 (91%)
Eastern Mediterranean Region	21 Member States	18 (86%)	18 (86%)	18 (86%)	16 (76%)	13 (62%)
European Region	53 Member States	53 (100%)	50 (94%)	49 (92%)	47 (89%)	47 (89%)
South-East Asia Region	11 Member States	10 (91%)	10 (91%)	10 (91%)	10 (91%)	10 (91%)
Western Pacific Region	27 Member States	24 (88%)	24 (88%)	22 (81%)	22 (81%)	22 (81%)
Global	194 Member States	182 (94%)	177 (91%)	172 (89%)	165 (85%)	160 (82%)

* Percentage is calculated by dividing the number of Member States (or Associate Members) by an INFOSAN Emergency Contact Point registered on the INFOSAN Community Website in each region by the total number of Members States (or Associate Members) in that region. For example, in the African Region in 2019, 38/47 = 81%.

⁷ Associate Member States are invited to designate an Emergency Contact Point and Focal Points; areas/territories are represented by the Emergency Contact Point from their participating Member State but are encouraged to designate Focal Points

⁸ For the purpose of this report, regional divisions of Member States/areas/territories are based on coverage provided by the six WHO regional offices. For more information visit: <http://www.who.int/about/regions/en/>

Table 10 illustrates, by region, the number of Member States with one or more INFOSAN Focal Point(s) registered on the ICW as of the end of 2019, compared to previous years. As of the end of 2021, 147 (76%) of 194 WHO and FAO Member States have one or more INFOSAN Focal Point(s) registered, representing a 9-point increase during the 2020-2021 biennium. INFOSAN members from both the Americas and the African region have made the most progress concerning the designation of new INFOSAN Focal Points during these two years.

Overall, 188 out of 194 WHO and FAO Member States have officially designated at least an INFOSAN Member. The regions of the Americas, Europe, and the Western Pacific have at least designated one INFOSAN member in each Member State. Targeted efforts will continue through the next biennium (2022-2023) to ensure that all INFOSAN members are active and well-versed in their roles and responsibilities, as per the INFOSAN Strategic plan 2020-2025.

Table 10 - Member states, associate members, and areas/territories with one or more INFOSAN focal point(s) registered on the ICW by region from 2017 to 2021

REGION	Number of Member States in the Region	2021, n (%*)	2020, n (%*)	2019, n (%*)	2018, n (%*)	2017, n (%*)
African Region	47 Member States	37 (78%)	35 (74%)	34 (72%)	32 (68%)	30 (64%)
Region of the Americas	35 Member States	33 (94%)	30 (86%)	28 (80%)	29 (82%)	29 (82%)
Eastern Mediterranean Region	21 Member States	18 (86%)	18 (86%)	18 (86%)	16 (76%)	10 (48%)
European Region	53 Member States	32 (60%)	32 (60%)	32 (60%)	29 (55%)	31 (58%)
South-East Asia Region	11 Member States	6 (55%)	6 (55%)	6 (55%)	6 (55%)	6 (55%)
Western Pacific Region	27 Member States	21 (78%)	21 (78%)	20 (74%)	20 (74%)	17 (63%)
Global	194 Member States	147 (76%)	142(73%)	138 (71%)	132 (68%)	123 (63%)

* Percentage is calculated by dividing the number of Member States (or Associate Members or areas/territories) with at least one INFOSAN Focal Point registered on the INFOSAN Community Website in each region by the total number of Members States (or Associate Members or areas/territories) in that region. For example, in the African Region in 2019, $34/47 = 72\%$.



4.3 INFOSAN study

In January 2019, a study of INFOSAN was launched to describe and explore the experiences of members and better understand the role of the network in mitigating the burden of foodborne illness around the world.

The study examined access to and usage of the ICW, explored barriers and facilitators to active participation in INFOSAN, determined perceptions about the utility of INFOSAN to mitigate foodborne illness, and scrutinized if and how participation in this network creates value for members.

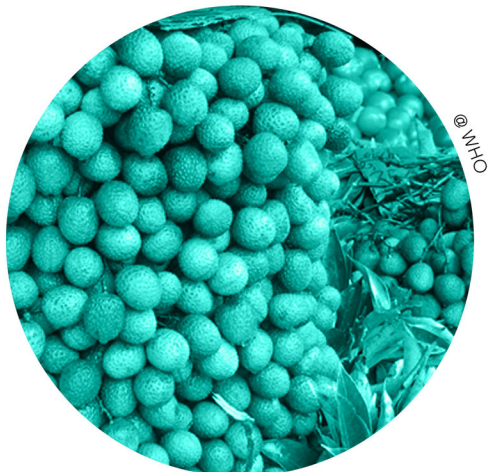
The study concluded in 2021 and the INFOSAN Secretariat would like to thank all INFOSAN members for their participation in the study. All aspects of the study design and results were published in seven open-access journal articles. Publications have been made available on the [INFOSAN Public Website](#).

5 Increasing INFOSAN visibility

5.1 World Food Safety Day

Commemoration of the second World Food Safety Day - 07 June 2020⁹

On 7 June 2020, the second World Food Safety Day (WFSD) highlighted the theme 'Food Safety is Everyone's Business'. A presentation to describe what everyone can do to ensure *Safe Food in Markets* was jointly prepared by FAO and WHO and delivered by the INFOSAN Secretariat during three webinars in English, French, and Spanish. The sessions were



attended by more than 250 participants. The INFOSAN Secretariat also encouraged members to commemorate this WFSD and shared available materials prepared by FAO/WHO to celebrate the date, along with a list of online activities in which members could participate.

Commemoration of the third World Food Safety Day (WFSD) - 07 June 2021

For the third WFSD, INFOSAN members alongside the INFOSAN Secretariat collaborated with FAO in the preparation of a live stream for the launch of the campaign for the third WFSD. The live stream newscast announced the 2021 year's theme "Safe food now for a healthy tomorrow" and included contributions from FAO, WHO, and the Secretariat of the Codex Alimentarius Commission (CAC), as well as guests from around the world. The discussion focused on why food safety is everyone's business and set the scene for the third occurrence of WFSD on 7 June 2021.

In addition, a series of webinars¹⁰ were organized, with the support of the Chilean government, to inspire INFOSAN members on how to commemorate the date. During the webinars, the Chilean Agency for Food Safety and Quality (ACHIPIA) introduced the plans to commemorate the date in Chile in 2021, as well as the rationale behind the actions planned for 2021.

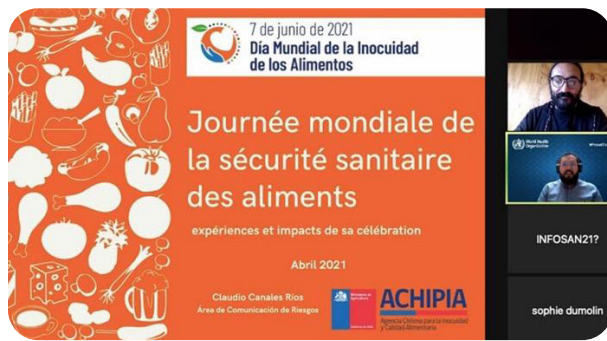
Cabo Verde - 7 June 2021

On 7 June 2021, authorities in Cabo Verde (Entidade Reguladora Independente da Saúde, ERIS) joined the commemoration of the third WFSD by celebrating an online event to launch the "Manual of Good Hygiene Practices for Food Establishments". The event included the participation of ERIS staff, the INFOSAN Secretariat, and the WHO Country Office and FAO representative in Cabo Verde. The INFOSAN Secretariat was delighted to be part of this event by delivering a presentation to introduce the theme of this year's WFSD: Safe food now for a healthy tomorrow. The event was dedicated to the presentation of the "Manual of Good Hygiene Practices for Food Establishments" by the staff at ERIS. More information on the event is available on the WFSD website¹¹.

⁹ <https://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/en/c/1276726/>

¹⁰ <https://www.fao.org/fao-who-codexalimentarius/world-food-safety-day/wfsd-news/news-details/en/c/1400345/>

¹¹ <http://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/es/c/1403921/>



@ WHO

Africa – 8 June 2021

To commemorate the WFS 2021, the FAO and WHO Regional Offices in Africa and the FAO/WHO Coordinating Committee for Africa (CCAFRICA) organized a regional virtual event on 8 June 2021. With the ratification of the African Continental Free Trade Area Agreement coming into effect, this year's event focused on the needs of African countries to fully benefit from boosting intra-African food trade. INFOSAN participated in this event due to the role of the Network in enhancing cross-sectoral networking and collaboration to respond effectively to food safety emergencies. The participants were from different backgrounds including food regulators, authorities responsible for food safety from the different ministries, nutrition program managers, FAO, WHO, and other United Nations (UN) agencies, NGOs in the field of food safety and nutrition, Codex Contact Points in the region, INFOSAN members in the region, national food and nutrition research institutes, and academia. The INFOSAN Secretariat focused on the crucial role of the Network in facilitating international collaboration to respond to food safety emergencies and exchanging knowledge and experience to help understand the challenges faced. The Secretariat encouraged countries to continue to get involved and participate in the Network.

5.2 Other meetings

Global food safety incidents and emergency response conference - 13, 14 and 15 October

From 13-15 October 2021, members of the INFOSAN Secretariat attended the Global Food Safety Incidents and Emergency Response Conference, organized and hosted by the Food Standards Agency (FSA) and Food Standards Scotland (FSS) of the United Kingdom.

The conference provided an opportunity for a network of international regulators, food safety scientists, food laboratory experts, and technical experts from across the world to review food safety incidents and crises, better understand how to respond to challenges affecting global

food safety and food supply and explore the role of food systems.

Dr Francesco Branca, Head of Nutrition and Food Safety- WHO, delivered the keynote speech where he detailed the role of INFOSAN in food safety incidents and broader food systems. In his presentation, Dr Branca illustrated this through the case study from 2017-2018 of the outbreak of listeriosis in South Africa linked to internationally distributed ready-to-eat meat. He also outlined some key figures around food safety incidents reported by INFOSAN in 2021 to demonstrate the rising importance of INFOSAN and its members.

On day two of the conference, the INFOSAN Secretariat presented on INFOSAN and its potential for improving risk communication between countries. A case study of an outbreak of *E. coli* O104:H4 infections in Germany and France in 2011 was presented and outlined some key lessons learned in the area of risk communication during food safety incidents.

Among the over 300 attendees, several INFOSAN members were invited to share their expertise and their countries' perspectives in numerous areas of food safety.

Conference attendees explored the role of the food industry in incident resolution and product recalls, as well as best practices in food crime, food defense, and food authenticity, and how best to communicate food risks. Within this context, the agenda also covered a range of issues including how to achieve harmonization and the use of best practices across differing international regulatory systems, as well as future challenges for the food industry and regulators.



@ WHO

INFOSAN in the context of the COVID-19 pandemic

The role of INFOSAN during the COVID-19 pandemic

Food Sector and the COVID-19 outbreak

On 31 December 2019, WHO was alerted to several cases of pneumonia of unknown origin in the city of Wuhan, Hubei Province, China. The virus, a previously unknown coronavirus has been named SARS-CoV-2 and is the cause of the COVID-19 disease. Though not a foodborne disease, measures taken to

mitigate the global impact of the COVID-19 public health crisis have disrupted food production and food supply chains worldwide. However, ensuring a continuous and safe food supply is a critical issue for the health of all people, everywhere.

INFOSAN played an essential role for INFOSAN members to ensure they received the most up-to-date information about COVID-19 and food safety. In early 2020, a call for questions on food safety and COVID-19 was launched via INFOSAN. Questions and answers provided by the INFOSAN Secretariat were posted on the ICW in English, Spanish, and French. This activity was followed by a series of webinars for INFOSAN members to introduce the FAO/WHO guidance documents on food safety and COVID-19.

Two FAO/WHO guidance documents were published in April 2020 and 2021. These are titled, *COVID-19 and Food Safety: Guidance for competent authorities responsible for national food safety control systems*¹², *COVID-19 and food safety: guidance for food businesses*¹³. The documents were widely disseminated through the Network, allowing members to raise questions and exchange ideas on COVID-19 and food safety.



¹² https://www.who.int/publications-detail-redirect/WHO-2019-nCoV-Food_Safety_authorities-2020.1

¹³ <https://www.who.int/publications-detail-redirect/covid-19-and-food-safety-guidance-for-food-businesses>

Conclusion

In 2019, the Global INFOSAN Strategic Plan 2020-2025 was presented at the second Global Meeting of INFOSAN members in Abu Dhabi, UAE. The document provides a strategic vision for the future of the network and describes the process undertaken by the INFOSAN Secretariat to inform the decision-making within FAO and WHO together with the INFOSAN Advisory Group. The strategy outlines six objectives and serves as a source of inspiration for future discussions that will further inform the strategic thinking process and shape the future direction of INFOSAN. The second INFOSAN meeting also provided a platform where INFOSAN members discussed common challenges and areas of opportunity at the international and regional levels.

The activities implemented in 2020 and 2021 demonstrate that a clear path is being followed to achieve the strategic objectives outlined in the INFOSAN Global Strategic Plan 2020-2025. The INFOSAN Secretariat registered the busiest year so far concerning INFOSAN events reported through the Network in 2021, with 248 events of international concern being effectively communicated via INFOSAN. This shows clear progress in establishing INFOSAN as a tool for information exchange during food safety emergencies, with more active members sharing information promptly, enabling others to make decisions that mitigate the negative impact on public health. Such progress also reflects that the various efforts made by the INFOSAN Secretariat, and

INFOSAN members, to improve capacities around food safety emergency response have been bearing increasingly evident results over the years.

While progress is evident, the experience of the COVID-19 pandemic shows that international public health emergencies have the potential to emerge without warning, and affect large numbers of people and various sectors. Efforts must therefore continue to refine and improve existing tools that allow countries to exchange information, such as INFOSAN. To that end, the INFOSAN Secretariat continues to encourage the exchange of information not only during the response to food safety emergencies but also outside of emergencies to reflect on lessons learned and to continue to build a community of members with a deep understanding of what it means to be part of the Network and its role in the context of global health and food security. Of particular relevance are the efforts to improve the content and availability to organize capacity building activities for food safety emergency response, risk communication, and inter-sectoral coordination as well as the multiple regional meetings of INFOSAN Members organized in 2020-2021.

The INFOSAN Secretariat acknowledges the progress made to date with the support of the INFOSAN Members and looks forward to further planning and improving the work done to better serve the Member States of the WHO and FAO in the framework of the INFOSAN Global Strategic Plan 2020-2025.



Annexes

Annex 1. INFOSAN events in 2020

Event Name	Date of identification (M/D/Y)	Countries	Type of Hazard	Specific Hazard	Food Category	Source of Identification
An outbreak of <i>Shigella sonnei</i> in Norway linked to snap peas imported from Kenya	1/6/2020	Canada, Kenya, Norway	Biological	<i>Shigella sonnei</i>	Legumes and pulses	Outbreak
Recall in Australia of fish cakes due to undeclared allergen (egg)	1/10/2020	China, Fiji, Germany, Indonesia, Italy, Nauru, New Zealand, Papua New Guinea, Republic of Korea, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Vanuatu, Viet Nam	Allergen	Egg	Fish and other seafood	FS Australia New Zealand
Withdrawal of soft cheese in Germany due to the detection of glass fragments, distributed internationally	1/20/2020	Germany, Türkiye	Physical	Glass	Milk and dairy products	RASFF
Recall in Canada of tahini from Lebanon due to possible presence of <i>Salmonella</i>	2/4/2020	Canada, Lebanon, United States of America	Biological	<i>Salmonella</i>	Herbs, spices and condiments	CFIA
Detection of <i>Cronobacter</i> in galacto oligosaccharide powder from China in the Netherlands (Kingdom of the)	1/20/2020	China, Netherlands (Kingdom of the)	Biological	<i>Cronobacter</i>	Products for special nutritional use	RASFF
Detection of <i>Salmonella</i> in basil from Egypt in Poland	1/20/2020	Egypt, Poland	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Outbreak of <i>Listeria monocytogenes</i> infections linked to consumption of chilled sausages from Germany	1/22/2020	Antigua and Barbuda, Germany, China Hong Kong SAR, Panama	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Recall in Chile of smoked salmon due to <i>Listeria monocytogenes</i>	1/28/2020	Chile	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	PAHO IHR
Recall of chocolate fondant from France due to undeclared allergen (milk), distributed internationally	1/28/2020	France, United Arab Emirates	Allergen	Milk	Snacks, desserts, and other foods	RASFF
Detection of <i>Salmonella</i> in hazelnuts from Georgia in Germany	1/30/2020	Georgia, Germany	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Recall of various products from the United Kingdom due to undeclared allergen (milk), distributed internationally	2/4/2020	Barbados, Thailand, United Kingdom	Allergen	Milk	Unknown	RASFF
Recall in Argentina of wild boar marinade due to presence of botulinum toxin	2/7/2020	Argentina	Biological	<i>Clostridium botulinum</i>	Herbs, spices and condiments	PAHO IHR
Case of botulism in Iceland with source under investigation	2/7/2020	Iceland	Biological	<i>Clostridium botulinum</i>	Unknown	Outbreak

Recall in the Netherlands (Kingdom of the) of canned bamboo shoots from China due to the detection of plastic fragments	2/12/2020	China, Netherlands (Kingdom of the)	Physical	Plastic	Vegetables and vegetable products	RASFF
Recall in Australia of lentils from Canada due to the detection of foreign matter	2/12/2020	Australia, Canada	Physical	Unknown	Legumes and pulses	FS Australia New Zealand
An outbreak of <i>Salmonella</i> illnesses in France linked to the consumption of raw milk cheese from France	2/13/2020	France, Japan	Biological	<i>Salmonella</i>	Milk and dairy products	RASFF
Detection of <i>Salmonella</i> in grind coriander from Germany	2/13/2020	Germany, Russian Federation, South Africa, Ukraine	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Detection of <i>Listeria monocytogenes</i> in frozen smoked trout fillet from Türkiye	2/14/2020	Türkiye	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Detection in the Netherlands (Kingdom of the) of Norovirus in frozen blueberries from Peru	2/17/2020	Netherlands (Kingdom of the), Peru	Biological	Norovirus	Fruit and fruit products	RASFF
Recall in several countries of frozen spring roll sheets from Singapore due to the presence of an undeclared allergen	2/20/2020	Andorra, Austria, Bahrain, Barbados, Belgium, Brunei Darussalam, Cambodia, Canada, Colombia, Cyprus, Czechia, Denmark, France, Georgia, Greece, China Hong Kong SAR, India, Indonesia, Ireland, Italy, Kuwait, Latvia, Lebanon, Malaysia, Malta, Mauritius, Montenegro, Myanmar, New Zealand, Norway, Peru, Poland, Qatar, Republic of Korea, Republic of Moldova, Russian Federation, Rwanda, Serbia, Seychelles, Singapore, South Africa, Spain, Sri Lanka, Suriname, Sweden, Switzerland, Thailand, Timor-Leste, Türkiye, Ukraine, United Arab Emirates, United Kingdom, United States of America, Viet Nam	Allergen	Milk	Cereals and cereal-based products	FS Australia New Zealand
Recall in Argentina of frozen dairy products due to the detection of <i>Listeria monocytogenes</i>	2/21/2020	Argentina	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	PAHO IHR
Recall in Argentina of corn kernels from Brazil due to possible presence of <i>Bacillus cereus</i>	2/24/2020	Argentina, Brazil	Biological	<i>Bacillus cereus</i>	Cereals and cereal-based products	PAHO IHR
Recall in South Africa of tins of pilchards in tomato sauce due to canning deficiencies	2/27/2020	Angola, Botswana, Eswatini, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Uganda, Zambia	Physical	Tin	Fish and other seafood	INFOSAN ECP/FP

Recall in Canada of frozen fish products from Singapore due to <i>Clostridium botulinum</i> concerns	2/28/2020	Canada, Singapore	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	CFIA
Recall in the United Kingdom of canned sardines from Morocco due to suspicion of bacterial contamination (swollen cans)	2/27/2020	Morocco, United Kingdom	Biological	Unknown	Fish and other seafood	US CDC
An outbreak of Shiga toxin-producing <i>E. coli</i> infections linked to clover sprouts in the USA	2/27/2020	United States of America	Biological	<i>E. coli</i>	Legumes and pulses	RASFF
Recall in Canada of oysters from France due to the detection of Norovirus	2/27/2020	Canada, France	Biological	Norovirus	Fish and other seafood	CFIA
Recall in Germany of onion powder from India due to the detection of <i>Salmonella</i>	3/2/2020	Germany, India	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Detection of Norovirus in Belgium in frozen raspberries from Serbia	3/2/2020	Belgium, Serbia	Biological	Norovirus	Fruit and fruit products	CFIA
Recall of soft cheese in the Netherlands (Kingdom of the) due to the detection of STEC, distributed internationally	3/10/2020	Italy, Netherlands (Kingdom of the)	Biological	<i>E. coli</i>	Milk and dairy products	RASFF
Recall in Romania of chia seeds from Bolivia (Plurinational State of) due to <i>Salmonella</i> detection	3/10/2020	Bolivia (Plurinational State of), Romania	Biological	<i>Salmonella</i>	Cereals and cereal-based products	RASFF
Recall in Canada of tuna products due to the presence of histamine, distributed internationally	3/11/2020	Canada, Viet Nam	Chemical	Histamine	Fish and other seafood	CFIA
An outbreak of <i>Listeria monocytogenes</i> in the United States of America linked to enoki mushrooms imported from the Republic of Korea	4/14/2020	China Hong Kong SAR, Indonesia, Myanmar, Netherlands (Kingdom of the), Philippines, Republic of Korea, Singapore, United States of America	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	FAO-AGFF
Recall of gluten-free bread in Germany due to the presence of foreign matter, distributed internationally	3/13/2020	Germany, Singapore	Physical	Unknown	Cereals and cereal-based products	RASFF
Infant food recall in France due to the presence of an undeclared allergen (gluten), distributed internationally	3/13/2020	Burkina Faso, Côte d'Ivoire, Djibouti, France, Guinea, Mauritania, Niger	Allergen	Gluten	Food for infants and small children	RASFF
Detection in Canada of <i>Salmonella</i> in moong powder from India	3/19/2020	Canada, India	Biological	<i>Salmonella</i>	Products for special nutritional use	CFIA
Recall in the United Kingdom of gluten-free vegetable lasagne from the United States of America due to the presence of metal fragments	3/25/2020	United Kingdom, United States of America	Physical	Metal	Composite food	RASFF
An outbreak of <i>Salmonella</i> Virchow in the Netherlands (Kingdom of the) linked to frozen chicken meat imported from Brazil	4/1/2020	Brazil, Netherlands (Kingdom of the)	Physical	<i>Salmonella</i>	Meat and meat products	RASFF

Recall in Australia of soboro bread from the Republic of Korea due to the presence of an undeclared allergen (peanut)	4/2/2020	Australia, Republic of Korea	Allergen	Peanut	Cereals and cereal-based products	FS Australia New Zealand
Recall of chilled raw milk cheese in France due to the detection of <i>Listeria monocytogenes</i> , distributed internationally	4/9/2020	China, France	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Poland of cream cheese due to the presence of an undeclared allergen, distributed internationally	4/21/2020	Poland, United States of America	Allergen	Mustard	Milk and dairy products	INFOSAN ECP/FP
An outbreak of <i>Salmonella</i> illnesses linked to the consumption of pre-packaged cooked pork shoulder slices, distributed internationally	4/23/2020	Benin, Cameroon, Monaco	Allergen	<i>Salmonella</i>	Meat and meat products	RASFF
Recall in Australia of apple and blackcurrant juice due to the presence of patulin, distributed internationally	5/11/2020	Australia, Barbados, China Hong Kong SAR, Singapore, Thailand, United Kingdom	Chemical	Patulin	Fruit and vegetable juices	FS Australia New Zealand
Recall of red pepper relish from the Republic of North Macedonia due to the presence of glass particles, distributed internationally	4/29/2020	Austria, Republic of North Macedonia	Physical	Glass	Herbs, spices and condiments	RASFF
Recall in Australia of kimchi from ROK for potential microbial contamination due to under allocation of salt	4/28/2020	Australia, Republic of Korea	Biological	Unknown	Vegetables and vegetable products	FS Australia New Zealand
Detection of <i>Salmonella</i> in kaffir lime leaves from South Africa, distributed internationally	5/5/2020	South Africa	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Recall in Romania of trout cream with butter due to the detection of <i>Listeria monocytogenes</i> , distributed internationally	5/13/2020	Republic of Moldova, Romania	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Recall in Denmark of organic alfalfa seeds from China due to the detection of glass fragments	5/13/2020	China, Denmark	Physical	Glass	Legumes and pulses	RASFF
Methanol poisoning outbreak in Mexico linked to consumption of adulterated fraudulent liquor	5/14/2020	Mexico	Chemical	Methanol	Alcoholic beverages	Outbreak
Recall in Australia of fresh babaganoush due to the presence of an undeclared allergen (sesame), distributed internationally	5/15/2020	Australia, Singapore	Allergen	Sesame	Composite food	FS Australia New Zealand
A suspected case of botulism in Cyprus linked to the consumption of pre-packed fish	5/15/2020	Cyprus	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	INFOSAN ECP/FP
Cases of illness among children in China suspected to be linked to the consumption of infant formula	5/16/2020	Algeria, Andorra, Angola, Australia, Canada, Chile, China, Mexico, New Zealand, Singapore, South Africa, Spain, Türkiye, United Arab Emirates, United States of America	Chemical	Unknown	Food for infants and small children	WHO HQ

Detection in the United Kingdom of <i>Salmonella</i> and a high count of <i>E.coli</i> in holy basil from Thailand	5/18/2020	Thailand, United Kingdom	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Cases of scombroid food poisoning in Sweden suspected to be linked to frozen tuna from Viet Nam	5/27/2020	Netherlands (Kingdom of the), Sweden, Viet Nam	Chemical	Histamine	Fish and other seafood	Outbreak
Recall in Australia of rice puffs from the Republic of Korea due to the presence of an undeclared allergen (wheat)	5/27/2020	Australia, Republic of Korea	Allergen	Wheat	Cereals and cereal-based products	FS Australia New Zealand
Detection in Germany of <i>Salmonella</i> in shelled almonds from the United States of America	6/4/2020	Germany, United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Methanol poisoning outbreak in the Dominican Republic linked to the consumption of adulterated alcoholic beverages	6/4/2020	Dominican Republic, Haiti	Chemical	Methanol	Alcoholic beverages	INFOSAN ECP/ FP
An outbreak of methanol poisoning in Cambodia linked to the consumption of wine	6/15/2020	Cambodia	Chemical	Methanol	Alcoholic beverages	Outbreak
Recall in Norway of frozen raspberries from Serbia due to the detection of glass fragments	6/18/2020	Norway, Serbia	Physical	Glass	Fruit and fruit products	RASFF
Recall in Croatia of chilled smoked salmon from Serbia, distributed internationally (<i>Listeria</i>)	6/22/2020	Croatia, Serbia	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Recall in the United Kingdom of cheese spreads due to the detection of <i>Clostridium botulinum</i> , distributed internationally	6/22/2020	China, Qatar, Republic of Korea, United Arab Emirates, United Kingdom	Biological	<i>Clostridium botulinum</i>	Milk and dairy products	RASFF
Detection in Italy of histamine in frozen yellowfin tuna from India	6/24/2020	India, Italy	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Australia of peanut butter due to the presence of an undeclared allergen (nuts)	6/25/2020	Australia, Japan, New Zealand	Allergen	Nuts	Nuts and oilseeds	FS Australia New Zealand
Recall in Denmark of cooked white leg shrimps from Viet Nam due to the detection of <i>Vibrio cholerae</i>	6/25/2020	Denmark, Viet Nam	Biological	<i>Vibrio cholerae</i>	Fish and other seafood	RASFF
Rodent contamination of frozen pig feet from Germany, distributed internationally	6/26/2020	Angola, Germany, China Hong Kong SAR	Physical	Rodents	Meat and meat products	RASFF
Recall of a charcuterie product in France due the detection of <i>Listeria monocytogenes</i> , distributed internationally	7/1/2020	France, Guinea	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Detection in Denmark of high levels of lectins in pre-cooked frozen red kidney beans from Türkiye	7/1/2020	Denmark, Türkiye	Allergen	Lectin	Legumes and pulses	EURO IHR
Detection in Germany of <i>Salmonella</i> in almonds from the United States of America	7/3/2020	Germany, United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Suspected high levels of histamine in internationally distributed frozen tuna from France	7/7/2020	Côte d'Ivoire, France	Chemical	Histamine	Fish and other seafood	RASFF

Recall in Sweden of pickled eggplants from Lebanon due to incorrect labelling (coconut labelled instead of walnut)	7/7/2020	Lebanon, Sweden	Allergen	Walnut	Vegetables and vegetable products	RASFF
Recall in the United Kingdom of frozen cooked beef and ale pie due to the presence of undeclared allergens (hazelnuts and milk), distributed internationally	7/15/2020	Antigua and Barbuda, United Kingdom	Allergen	Milk, Hazelnuts	Meat and meat products	RASFF
Detection in France of high levels of histamine in chilled tuna loins from Sri Lanka	7/15/2020	France, Sri Lanka	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Australia of halloumi cheese due to possible microbial contamination, distributed internationally	7/18/2020	Australia, Republic of Korea	Biological	Unknown	Milk and dairy products	FS Australia New Zealand
Recall in Australia of seafood sticks and salad mix from Thailand due to the presence of an undeclared allergen (egg)	7/21/2020	Australia, Thailand	Allergen	Egg	Fish and other seafood	FS Australia New Zealand
Recall in Australia of rice milk from the Republic of Korea due to the presence of an undeclared allergen (milk)	7/22/2020	Australia, Republic of Korea	Allergen	Milk	Milk and dairy products	FS Australia New Zealand
Recall in Hungary of canned beans due to defective packaging, distributed internationally	7/22/2020	Bosnia and Herzegovina, Hungary, Serbia	Physical	Defect	Legumes and pulses	RASFF
Detection in Germany of <i>Salmonella</i> in peeled almonds from the United States of America	7/24/2020	Germany, United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Detection in Italy of histamine in frozen mackerels from China	7/27/2020	China, Italy	Chemical	Histamine	Fish and other seafood	RASFF
Detection in Poland of <i>Salmonella</i> Bareilly in nigella seeds from India	7/29/2020	India, Poland	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
An outbreak of <i>Salmonella</i> Newport infections linked to red onions	8/3/2020	United States of America	Biological	<i>Salmonella</i>	Vegetables and vegetable products	US CDC
An outbreak of foodborne illness linked to a restaurant in Amman	8/4/2020	Jordan	Biological	Unknown	Meat and meat products	WHO HQ
Recall in Germany of cashew nuts from Viet Nam due to the detection of a foreign body	8/7/2020	Germany, Viet Nam	Physical	Foreign body	Nuts and oilseeds	RASFF
Recall in Australia of milk chocolate due to the presence of an undeclared allergen (milk), distributed internationally	8/20/2020	Australia, New Zealand	Allergen	Milk	Snacks, desserts, and other foods	FS Australia New Zealand
Detection in Latvia of <i>Salmonella</i> Enteritidis in scrambled eggs mix from Ukraine	8/21/2020	Latvia, Ukraine	Biological	<i>Salmonella</i>	Eggs and egg products	RASFF

An outbreak of <i>Salmonella</i> Enteritidis infections linked to fresh peaches from the United States of America	8/25/2020	Australia, Canada, China, Cook Islands, Costa Rica, Ecuador, El Salvador, French Polynesia, Guatemala, Honduras, Mexico, New Zealand, Panama, Philippines, Samoa, Singapore, Tonga, United Arab Emirates, United States of America	Biological	<i>Salmonella</i>	Fruit and fruit products	INFOSAN ECP/FP
Detection in the United Kingdom of <i>Salmonella</i> Anatum and Typhimurium in Brazil nuts from Bolivia (Plurinational State of)	8/25/2020	Bahrain, Bolivia (Plurinational State of), Egypt, China Hong Kong SAR, India, Iraq, Jordan, Mali, Philippines, Qatar, Somalia, South Africa, United Kingdom, United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Detection in the Netherlands (Kingdom of the) of <i>Salmonella</i> in condiments mix imported from Belgium, distributed internationally	8/26/2020	Belgium, Netherlands (Kingdom of the), Republic of Korea	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Recall in Canada of buffalo milk cheese from Italy due to the detection of <i>E. coli</i>	8/25/2020	Italy	Biological	<i>E. coli</i>	Milk and dairy products	CFIA
Suspected clenbuterol poisoning in Mexico allegedly linked to beef consumption	8/27/2020	Mexico	Chemical	Clenbuterol	Meat and meat products	PAHO IHR
An outbreak of botulism in Viet Nam suspected to be linked to consumption of a vegan paté	8/31/2020	Viet Nam	Biological	<i>Clostridium botulinum</i>	Composite food	INFOSAN ECP/FP
Recall in Australia of almond milk due to potential microbial contamination, distributed internationally	9/4/2020	Jordan, Kuwait, Madagascar, New Zealand, United Arab Emirates, Viet Nam	Biological	Unknown	Nuts and oilseeds	FS Australia New Zealand
Detection in Belgium of glass fragments in pickled gherkins from Türkiye, distributed internationally	9/2/2020	Belgium, Türkiye	Physical	Glass	Vegetables and vegetable products	RASFF
An outbreak of <i>Salmonella</i> infections in France suspected to be linked to fuet sausage from Spain, distributed internationally	9/4/2020	France	Biological	<i>Salmonella</i>	Meat and meat products	RASFF
Recall in South Africa of red grape juice due to the detection of glass fragments, distributed internationally	9/7/2020	Botswana, Namibia, South Africa, Zimbabwe	Physical	Glass	Fruit and vegetable juices	INFOSAN ECP/FP
Case of Botulism in Ukraine suspected to be linked to consumption of dried fish	9/7/2020	Ukraine	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	INFOSAN ECP/FP
An outbreak of <i>Salmonella</i> Stanley infections in the United States of America is suspected to be linked to the consumption of ramen	9/14/2020	United States of America	Biological	<i>Salmonella</i>	Composite food	ECDC

Recall in Italy of soy sauce imported from the Netherlands (Kingdom of the) due to the possible presence of glass fragments, distributed internationally	9/14/2020	Italy, Mauritius, Netherlands (Kingdom of the)	Physical	Glass	Herbs, spices and condiments	RASFF
Recall in Germany of milk chocolate due to the detection of plastic fragments, distributed internationally	9/14/2020	Germany, Netherlands (Kingdom of the), Philippines	Physical	Plastic	Snacks, desserts, and other foods	INFOSAN ECP/FP
Recall in Italy of dark chocolate bars due to the presence of plastic fragments, distributed internationally	9/15/2020	Albania, Italy	Physical	Plastic	Snacks, desserts, and other foods	RASFF
An outbreak of foodborne illnesses in Spain suspected to be caused by Norovirus in frozen tellins from Türkiye	9/16/2020	Italy, Türkiye	Biological	Norovirus	Fish and other seafood	RASFF
Recall in France of gorgonzola cheese from Italy due to the detection of <i>Listeria monocytogenes</i> , distributed internationally	9/22/2020	France, Madagascar, Mauritius	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Australia of soft sesame candy from Viet Nam due to the presence of an undeclared allergen (peanut)	9/21/2020	Australia, Viet Nam	Allergen	Peanut	Sugar and confectionary	FS Australia New Zealand
Multi-country recalls in Europe of sesame seeds imported from India due to the detection of ethylene oxide	10/1/2020	India	Chemical	Ethylene Oxide	Nuts and oilseeds	EURO IHR
Suspected outbreak of Botulism in Italy linked to the consumption of food at a local canteen	10/6/2020	Italy	Biological	<i>Clostridium botulinum</i>	Unknown	EURO IHR
Detection in Germany of <i>Salmonella</i> in fresh coconut pieces from Mozambique distributed via Türkiye	10/9/2020	Germany, Türkiye	Biological	<i>Salmonella</i>	Fruit and fruit products	RASFF
An outbreak of acute intestinal infections among children in Russia suspected to be linked to the consumption of dairy product (rotavirus)	10/12/2020	Russian Federation	Biological	Rotavirus	Milk and dairy products	EURO IHR
Detection in Canada of <i>Salmonella</i> in liquid tahini from Sudan	10/15/2020	Algeria, Canada, France, Kenya, Kuwait, Qatar, Saudi Arabia, Sudan, Türkiye, United Kingdom, United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	CFIA
Suspected outbreak of methanol poisoning in Costa Rica	10/15/2020	Costa Rica	Chemical	Methanol	Alcoholic beverages	INFOSAN ECP/FP
Recall in Canada of Raschera cheese due to the detection of <i>Salmonella</i> , distributed internationally	10/15/2020	Canada	Biological	<i>Salmonella</i>	Milk and dairy products	CFIA
Recall in Australia of chili sauce from China due to the presence of foreign matter	10/16/2020	Australia, China	Physical	Bone	Herbs, spices and condiments	FS Australia New Zealand
Recall in Germany of dried fenugreek leaves from the United Arab Emirates due to the detection of Shiga-toxin-producing <i>E. coli</i>	10/18/2020	Germany, United Arab Emirates	Biological	<i>E. coli</i>	Herbs, spices and condiments	RASFF

Recall in Germany of baked goods from Türkiye due to the detection of foreign bodies (metal)	10/22/2020	Germany, Türkiye	Physical	Metal	Snacks, desserts, and other foods	RASFF
Recall in Australia of dried anchovies from Viet Nam due to the detection of histamine	10/22/2020	Australia, Viet Nam	Chemical	Histamine	Fish and other seafood	FS Australia New Zealand
Recall in Australia of frozen shredded coconut from Viet Nam due to the detection of <i>Salmonella</i>	10/27/2020	Australia, Viet Nam	Biological	<i>Salmonella</i>	Fruit and fruit products	FS Australia New Zealand
Recall in Germany of braided cheese from France due to the detection of metal particles, distributed internationally	10/30/2020	Equatorial Guinea, France, Germany, Senegal	Physical	Metal	Milk and dairy products	RASFF
Recall in Italy of fontina cheese due to the detection of Shiga-toxin-producing <i>Escherichia coli</i> , distributed internationally	11/2/2020	China Hong Kong SAR, Italy	Biological	<i>E. coli</i>	Milk and dairy products	RASFF
Recall in Australia of chocolate bars from South Africa due to the presence of an undeclared allergen (milk)	11/4/2020	Australia, South Africa	Allergen	Milk	Snacks, desserts, and other foods	FS Australia New Zealand
Recall in France of dried sausages due to the presence of <i>Listeria monocytogenes</i> , distributed internationally	11/10/2020	France, Japan	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Recall in Poland of goat cheese due to the detection of <i>Listeria monocytogenes</i> , imported from the Netherlands (Kingdom of the)	11/11/2020	Netherlands (Kingdom of the), Poland, Ukraine	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Australia of ice cream from the United States of America (USA) due to potential chemical (solvent) contamination	11/21/2020	Australia, United States of America	Chemical	Solvent	Milk and dairy products	FS Australia New Zealand
Recall in the Netherlands (Kingdom of the) of yellowfin tuna loins and sakus due to the presence of histamine, imported from Viet Nam via Belgium	12/1/2020	Belgium, Netherlands (Kingdom of the), Viet Nam	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Australia of cookies imported from Iran (Islamic Republic of), due to the potential presence of an undeclared allergen (peanut)	12/16/2020	Australia, Iran (Islamic Republic of)	Allergen	Peanut	Snacks, desserts, and other foods	FS Australia New Zealand
Recall in Hungary due to undeclared mustard in Wasabi powder from Malaysia	12/21/2020	Hungary, Malaysia	Allergen	Mustard	Herbs, spices and condiments	RASFF
Recall in Germany of food supplements, due to the detection of <i>Salmonella</i> spp, imported from India	12/18/2020	Germany, India	Biological	<i>Salmonella</i>	Products for special nutritional use	RASFF
Recall in France of milk drinks and dairy desserts produced locally due to the possible presence of disinfectant (hydrogen peroxide)	12/18/2020	Albania, Democratic Republic of the Congo, Djibouti, France, Senegal, Thailand	Chemical	Hydrogen Peroxide	Milk and dairy products	RASFF

Annex 2. INFOSAN events in 2021

Event Name	Date of identification (M/D/Y)	Countries	Type of Hazard	Sub-type of Hazard	Food category	Source of identification
Recall in the United States of America of Herring in oil, due to the possible presence of <i>Listeria monocytogenes</i> , produced in Ukraine	1/4/2021	Ukraine, United States of America	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	PAHO IHR
Recall in the United Kingdom of salted caramel brownie protein snacks, produced locally, due to the presence of undeclared milk ingredient	1/4/2021	Singapore, United Kingdom	Allergen	Milk	Snacks, desserts, and other foods	RASFF
Recall of wasabi powder and other products due to presence of undeclared allergen (mustard)	1/6/2021	Brunei Darussalam, Ecuador, Hungary, Malaysia, Morocco, Namibia, South Africa, Vanuatu	Allergen	Mustard	Herbs, spices and condiments	RASFF
Recall of internationally distributed black sesame seeds due to ethylene oxide	1/6/2021	Austria, Belgium, Denmark, France, Germany, Italy, Netherlands (Kingdom of the), Norway, Poland, Sweden, Switzerland, United Kingdom	Chemical	Ethylene Oxide	Nuts and oilseeds	FSA
Recall in the Czechia of frozen raspberries due to the presence of norovirus GI, originating from Morocco	1/13/2021	Czechia, Morocco	Biological	Norovirus	Fruit and fruit products	RASFF
Recall in Switzerland of ground cumin due to the presence of pyrrolizidine alkaloids from Türkiye, via the United Kingdom	1/15/2021	Austria, Belgium, Cyprus, Denmark, Germany, Italy, Netherlands (Kingdom of the), Norway, Portugal, Switzerland, Türkiye, United Kingdom	Chemical	Pyrrolizidine alkaloids	Herbs, spices and condiments	FSA
An outbreak in Italy suspected to be caused by the presence of <i>Salmonella</i> spp. in salami produced locally and distributed internationally	1/18/2021	Italy, Maldives, Thailand, United Kingdom	Biological	<i>Salmonella</i>	Meat and meat products	RASFF
Recall in Argentina of Potato snacks from Paraguay due to undeclared allergen	1/18/2021	Argentina, Paraguay	Allergen	Milk	Snacks, desserts, and other foods	PAHO IHR
Recall of rice pancakes in Australia and Canada due to the presence of an undeclared allergen (eggs), imported from the Republic of Korea	1/19/2021	Australia, Canada, New Zealand, Republic of Korea, Singapore	Allergen	Eggs	Snacks, desserts, and other foods	FSANZ
Case of botulism in Russian Federation linked to consumption of canned tomatoes	1/21/2021	Russian Federation	Biological	<i>Clostridium botulinum</i>	Vegetables and vegetable products	EURO IHR
Recall in the Netherlands (Kingdom of the) of chili pepper due to the detection of <i>Salmonella</i> spp., originating from Uganda	1/25/2021	Netherlands (Kingdom of the), Uganda	Biological	<i>Salmonella</i>	Vegetables and vegetable products	RASFF

Recall in Germany of confectionary products, from Türkiye due to the presence of undeclared allergen (peanut)	1/25/2021	Germany, Türkiye	Allergen	Peanuts	Snacks, desserts, and other foods	RASFF
Recall in Germany of malagueta pepper due to the presence of <i>Salmonella</i> spp., distributed from Ghana via France	1/25/2021	France, Germany, Ghana	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Detection of <i>Salmonella</i> spp. in Italy in cooked frozen clams, originating from Viet Nam	1/25/2021	Italy, Viet Nam	Biological	<i>Salmonella</i>	Fish and other seafood	RASFF
Recall in the United Kingdom of frozen and chilled seafood due to the possible contamination with <i>Salmonella</i>	1/26/2021	Antigua and Barbuda, Bahamas, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, United Kingdom	Biological	<i>Salmonella</i>	Fish and other seafood	INFOSAN ECP/FP
Detection of <i>E. coli</i> (1700 CFU/100g) in batches of razor clams, produced in the UK and distributed to China Hong Kong SAR	1/27/2021	China Hong Kong SAR, United Kingdom	Biological	<i>E. coli</i>	Fish and other seafood	FSA
Multistate Cluster of <i>Listeria monocytogenes</i> in the US linked to Polish style Sausage	1/28/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	ECDC
Recall in France of Tuna loins from the Maldives, due to the presence of histamine (425 +/- 68 mg/kg)	1/28/2021	France, Maldives	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Canada of fish balls due to the presence of an improperly declared allergen (eggs), imported from the Philippines	1/29/2021	Canada, Philippines	Allergen	Eggs	Fish and other seafood	CFIA
Recall in the Netherlands (Kingdom of the) of raisins due to the presence of glass fragments, originating from South Africa	2/3/2021	Netherlands (Kingdom of the), South Africa	Physical	Glass	Fruit and fruit products	RASFF
Recall in France of raw milk cheeses due to the presence of <i>Listeria monocytogenes</i> and a high count of <i>E. coli</i> (>1500000 /g), produced locally and distributed internationally	2/8/2021	France, China Hong Kong SAR, Thailand	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Canada of Grouper fish due to the presence of malachite green, imported from Indonesia and distributed internationally	2/11/2021	Canada, China Hong Kong SAR, Indonesia, Singapore	Chemical	Malachite green	Fish and other seafood	CFIA
Recall in the Netherlands of organic apple juice (Kingdom of the) concentrate due to the presence of glass particles (2mm), produced locally and distributed internationally	2/11/2021	Aruba, Netherlands (Kingdom of the)	Physical	Glass	Fruit and vegetable juices	RASFF
Recall in Canada of chestnut spread due to the presence of glass pieces, originating from France	2/16/2021	Canada, France	Physical	Glass	Nuts and oilseeds	CFIA

Recall in Sweden of beer products from the US, due to the presence of undeclared allergen (lactose)	2/18/2021	Sweden, United States of America	Allergen	Lactose	Alcoholic beverages	RASFF
Recall in the UK of products from Singapore, due to the presence of undeclared allergen (peanuts)	2/18/2021	Singapore, United Kingdom	Allergen	Peanuts	Snacks, desserts, and other foods	FSA
Recall in Germany of food supplements from India, due to the detection of <i>Salmonella</i> spp.	2/22/2021	Germany, India	Biological	<i>Salmonella</i>	Food additives	RASFF
Recall of moringa powder in Germany due to detection of <i>Salmonella</i> spp. from Senegal	2/23/2021	Germany, Senegal	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
An outbreak of <i>Listeria monocytogenes</i> in the United States of America linked to the consumption of Queso Fresco	3/2/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	US CDC
Food poisoning cases in Italy linked to the consumption of yellowfin tuna loins exported from Viet Nam, via the Netherlands (Kingdom of the)	3/2/2021	Italy, Netherlands (Kingdom of the), Viet Nam	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Romania of frozen sardine trunks, due to the presence of histamine, distributed from Morocco via Spain	2/8/2021	Morocco, Romania, Spain	Chemical	Histamine	Fish and other seafood	RASFF
Detection in Germany of histamine (974 mg/kg-ppm) in tuna fillet in oil originating from Thailand	3/4/2021	Germany, Thailand	Chemical	Histamine	Fish and other seafood	RASFF
Recall in France of chilled goat milk cheese due to the presence of <i>Listeria monocytogenes</i> , produced locally and distributed internationally	3/5/2021	France, China Hong Kong SAR, United Arab Emirates	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Detection in France of <i>Vibrio vulnificus</i> in raw frozen shrimps from Guatemala	3/5/2021	France, Guatemala	Biological	<i>Vibrio vulnificus</i>	Fish and other seafood	RASFF
Recall in France of raw cow milk cheese due to the presence of <i>Listeria monocytogenes</i> , produced locally and distributed internationally	3/9/2021	France, Japan, United Arab Emirates	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Detection in Germany of <i>Salmonella</i> spp. in dried mint leaves originating from Iran (Islamic Republic of)	3/9/2021	Germany, Iran (Islamic Republic of)	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Recall in France of live oysters due to the presence of Norovirus, produced locally and distributed internationally	3/11/2021	France, China Hong Kong SAR	Biological	Norovirus	Fish and other seafood	RASFF
Recall in Romania of canned red beets due to the presence of glass fragments, produced in Hungary and distributed internationally	3/11/2021	Hungary, Romania, Serbia	Physical	Glass	Vegetables and vegetable products	RASFF
Recall in Canada of yellow walking fish imported from Viet Nam, due to the presence of therapeutic residue	3/12/2021	Canada, Viet Nam	Chemical	Malachite green	Fish and other seafood	CFIA

Detection in Italy of <i>Escherichia coli</i> in live mussels from Spain, distributed internationally	3/15/2021	Italy, Republic of Moldova, Spain	Biological	<i>E. coli</i>	Fish and other seafood	RASFF
Recall in Sweden of lollipops on sticks due to the presence of metal wires, produced in the Czechia and distributed internationally	3/15/2021	Czechia, Kazakhstan, Sweden	Physical	Metal	Sugar and confectionary	RASFF
Recall in Germany of a food additive (trisodium citrate dihydrate) due to the presence of metal wires, produced in Belgium and distributed internationally	3/15/2021	Germany, Russian Federation, Serbia, Ukraine	Physical	Metal	Food additives	RASFF
Recall in Italy of a food supplement due to the detection of an undeclared allergen (soy), produced locally and distributed internationally	3/18/2021	Andorra, Italy	Allergen	Soy	Food additives	RASFF
Recall in France of ready-to-eat garlic sausages due to the presence of <i>Listeria monocytogenes</i> , produced locally and distributed internationally	3/18/2021	Belgium, France, Senegal, Seychelles	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Recall in the United Kingdom of cassava flour due to the presence of high levels of hydrocyanic acid, originating from Ghana	3/18/2021	Ghana, United Kingdom	Chemical	Hydrocyanic acid	Starchy roots and tubers	FSA
Cases of acute non-viral Hepatitis in the United States of America suspected to be linked to the consumption of alkaline water	3/22/2021	United States of America	Undetermined	non-viral hepatitis	Drinking water	PAHO/IHR
Cases of foodborne botulism in Denmark suspected to be linked to the consumption of food at a local company	3/22/2021	Denmark	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	Outbreak
An outbreak of an undiagnosed disease in Nigeria suspected to be linked to the consumption of expired sachet water and/or locally produced juice drinks	3/22/2021	Nigeria	Undetermined	Unknown	Drinking water	Outbreak
Recall in Austria and Germany of soft cheese due to the detection of <i>Listeria monocytogenes</i> , produced in Austria and distributed internationally	3/22/2021	Austria, United States of America	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
An outbreak of <i>Salmonella</i> Hadar infections in the United States of America suspected to be linked to the consumption of turkey products	3/22/2021	United States of America	Biological	<i>Salmonella</i>	Meat and meat products	Outbreak
Recall in Norway of fruit caramels due to the presence of metal pieces, originating from Türkiye and distributed to Norway via Sweden	3/22/2021	Sweden, Türkiye	Physical	Metal	Sugar and confectionary	RASFF
Cases of hepatitis A identified in New Zealand, possibly linked to strawberries imported from Morocco	3/15/2021	Belgium, Morocco, New Zealand	Biological	Hepatitis A	Fruit and fruit products	FSANZ

Recall in Canada of apricot kernels from Türkiye due to elevated levels of extractable cyanide	3/23/2021	Canada, China, the United States of America, Türkiye	Chemical	Extractable Cyanide	Nuts and oilseeds	PAHO/IHR
Recall in Germany of raw cow's milk cheese due to the detection of <i>Listeria monocytogenes</i> , produced in France and distributed internationally	3/25/2021	China, France, Germany	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Germany of soft cheese due to the presence of Shiga-toxin-producing <i>E. coli</i> , produced in France and distributed internationally	3/29/2021	Cambodia, Côte d'Ivoire, Mali, Philippines, Singapore, Thailand	Biological	<i>E. coli</i>	Milk and dairy products	RASFF
Recall in France of chilled raw milk cheese due to the presence of <i>Listeria monocytogenes</i> , produced locally and distributed internationally	3/31/2021	China, France, Japan, Maldives	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Outbreaks of botulism in Viet Nam	4/2/2021	Viet Nam	Biological	<i>Clostridium botulinum</i>	Unknown	INFOSAN ECP/FP
Recall in the United Kingdom of infant formula from the United States of America due to the presence of plastic pieces	4/7/2021	Denmark, Ireland, Malta, United Kingdom, United States of America	Physical	Plastic	Food for infants and small children	FSA
Foodborne outbreak (n=19) in Sweden caused by histamine in Frozen tuna loins from Viet Nam, via the Netherlands (Kingdom of the)	4/9/2021	Netherlands (Kingdom of the), Sweden, Viet Nam	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Germany of ground onions from India, due to the detection of <i>Salmonella</i> spp.	4/9/2021	Germany, India	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Hepatitis A outbreak in the UK possibly related to Medjool dates imported from Jordan	4/13/2021	Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Somalia, South Sudan, Sudan, United Kingdom, Yemen	Biological	Hepatitis A	Fruit and fruit products	FSA
Case of botulism in Ukraine probably associated with the consumption of canned tuna originating from Italy	4/13/2021	Italy, Spain, Ukraine	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	INFOSAN ECP/FP
<i>Salmonella</i> outbreak in Denmark possibly linked to the consumption of HUSK psyllium capsules	4/16/2021	Denmark, India, United Kingdom	Biological	<i>Salmonella</i>	Products for special nutritional use	EURO IHR
Recall in the Netherlands (Kingdom of the) of grounded crayfish due to undeclared allergens (crustaceans and shellfish) produced in the United Kingdom	4/19/2021	Netherlands (Kingdom of the), the United Kingdom, Ukraine	Allergen	Shellfish	Fish and other seafood	RASFF
Recall in Estonia of lightly salted Atlantic Herring in oil from Belarus, via Lithuania, due to the presence of <i>Listeria monocytogenes</i>	4/19/2021	Belarus,, Estonia, Lithuania	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF

Recall in the United States of America of raw frozen boneless beef products from Australia due to possible contamination	4/19/2021	Australia, United States of America	Biological	<i>E. coli</i>	Meat and meat products	US CDC
Detection of <i>Listeria monocytogenes</i> in chicken nuggets in the Russian Federation	4/21/2021	Russian Federation	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	EURO IHR
Recall in the United States of America of enoki mushrooms from China due to the possible presence of <i>Listeria monocytogenes</i>	4/21/2021	China, United States of America	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	US CDC
Detection of histamine (800mg/kg) in frozen mackerel in Spain from Morocco	4/22/2021	Morocco, Spain	Chemical	Histamine	Fish and other seafood	RASFF
Recall in Spain of sausages produced locally due to the absence of indication of the presence of casein (allergen) on the product labeling	4/23/2021	Spain	Allergen	Milk	Meat and meat products	RASFF
Recall in Germany of organic tigernut flour from Niger, due to the presence of <i>Salmonella</i> sp.	4/23/2021	Germany, Niger, Spain	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Cases of <i>Salmonella</i> Duisburg in the USA suspected to be linked to vegan cashew cheese	4/23/2021	United States of America	Biological	<i>Salmonella</i>	Nuts and oilseeds	ECDC
Methanol poisoning outbreak in Dominican Republic linked to consumption of adulterated and counterfeit alcoholic beverages	4/23/2021	Dominican Republic	Chemical	Methanol	Alcoholic beverages	INFOSAN ECP/FP
Detection of glass fragments in a sauce jar in Lithuania, imported from Ukraine	4/28/2021	Lithuania, Ukraine	Physical	Glass	Herbs, spices and condiments	RASFF
Detection of glass pieces inside a jar of pesto in the Netherlands (Kingdom of the), imported from Italy	4/28/2021	Bosnia and Herzegovina, Italy, Morocco, Netherlands (Kingdom of the), Serbia, United Arab Emirates, United Kingdom	Physical	Glass	Herbs, spices and condiments	RASFF
Detection of an undeclared allergen (milk) in spice mixes from Denmark, distributed internationally	4/28/2021	Denmark, Thailand	Allergen	Milk	Herbs, spices and condiments	RASFF
Detection of <i>Salmonella</i> in hulled sesame seeds from Nigeria, distributed internationally	5/3/2021	Greece, Nigeria, Türkiye	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Recall in Romania of sunflower bars from Ukraine due to the presence of foreign bodies (pieces of metal)	5/5/2021	Romania, Ukraine	Physical	Metal	Snacks, desserts, and other foods	RASFF
Cases of <i>Salmonella</i> Chester in Iceland suspected to be linked to imported apples	5/3/2021	Iceland, Paraguay	Biological	<i>Salmonella</i>	Fruit and fruit products	ECDC
Detection in Argentina of an undeclared allergen (gluten) in potato-based snack from Paraguay	5/3/2021	Argentina, Paraguay	Allergen	Gluten	Snacks, desserts, and other foods	INFOSAN ECP/FP

Recall in the UK of vegetable bake due to the detection of glass fragments, distributed internationally	5/4/2021	Ireland, United Kingdom	Physical	Glass	Vegetables and vegetable products	FSA
Recall in France of raw milk goat cheese produced locally due to the presence of <i>Salmonella</i> , distributed internationally	5/6/2021	France, China Hong Kong SAR, Singapore	Biological	<i>Salmonella</i>	Milk and dairy products	RASFF
A cluster of hepatitis A virus I.B in the Netherlands (Kingdom of the)	5/7/2021	Netherlands (Kingdom of the)	Biological	Hepatitis A	Unknown	ECDC
Insects found in chickpeas from Türkiye	5/7/2021	Iceland, Türkiye, United Kingdom	Physical	Insects	Legumes and pulses	FSA
Recall in Canada of enoki mushrooms due to the detection of <i>Listeria monocytogenes</i> , suspected to be internationally distributed	5/10/2021	Canada, Republic of Korea	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	CFIA
Recall in Australia of Vegan Ribs, due to the presence of an undeclared allergen (egg), origination from Malaysia	5/10/2021	Australia, Malaysia	Allergen	Eggs	Vegetables and vegetable products	FSANZ
Recalls in Canada of cheese originating from Italy, due to the presence of <i>Listeria monocytogenes</i>	5/12/2021	Canada, Italy	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	CFIA
Recall in the UK of Toffee & Vanilla Cones due to the presence of undeclared allergen (milk)	5/14/2021	Spain, United Kingdom	Allergen	Milk	Snacks, desserts, and other foods	FSA
Recall in the UK of smoked Mexican sausage from Poland due to the detection of <i>Listeria monocytogenes</i>	5/14/2021	Poland, United Kingdom	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	FSA
Relabeling in the Netherlands (Kingdom of the) of noodles from China Hong Kong SAR due to the presence of undeclared allergen (soy)	5/17/2021	China Hong Kong SAR, Netherlands (Kingdom of the), United Kingdom	Allergen	Soy	Cereals and cereal-based products	RASFF
Multi-country outbreak of <i>Salmonella</i> Braenderup potentially related to fresh produce	5/20/2021	Belgium, Brazil, Canada, Costa Rica, Czechia, Denmark, Finland, France, Germany, Honduras, Ireland, Netherlands (Kingdom of the), Norway, Spain, Sweden, Switzerland, United Kingdom	Biological	<i>Salmonella</i>	Fruit and fruit products	FSA
Histamine detected in Spain in frozen mackerel from Morocco	5/21/2021	Morocco, Spain	Chemical	Histamine	Fish and other seafood	RASFF
Recall of defective canned beans in the United States of America due to botulism risk	5/25/2021	United States of America	Biological	<i>Clostridium botulinum</i>	Legumes and pulses	Outbreak
Detection of <i>Yersinia enterocolitica</i> in kimchi products in Republic of Korea imported from China	5/26/2021	China, Republic of Korea	Biological	<i>Yersinia enterocolitica</i>	Vegetables and vegetable products	INFOSAN ECP/FP
<i>Yersinia enterocolitica</i> O3 outbreak in Norway	5/26/2021	Norway	Biological	<i>Yersinia enterocolitica</i>	Unknown	EURO IHR

Recall in the USA of frozen cooked chicken products due to the possible presence of <i>Listeria monocytogenes</i>	5/26/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	Outbreak
Detection of <i>Salmonella</i> spp. in Germany in organic shatavari powder from India	5/26/2021	Germany, India	Biological	<i>Salmonella</i>	Products for special nutritional use	RASFF
Recall in Spain of smoked salmon marinated in dill and produced locally, due to the presence of <i>Listeria monocytogenes</i>	6/2/2021	Andorra, Spain	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Detection of <i>Salmonella</i> in Germany in frozen green pepper strips originating from China	6/2/2021	China, Germany	Biological	<i>Salmonella</i>	Vegetables and vegetable products	RASFF
Recall in the UK of Green Goovar originating from India, due to the presence of <i>Salmonella</i> Bareilly	6/2/2021	India, United Kingdom	Biological	<i>Salmonella</i>	Vegetables and vegetable products	FSA
Recall in Australia of ice cream produced locally due to the potential presence of foreign matter (rubber)	6/4/2021	Australia, Papua New Guinea	Physical	Rubber	Snacks, desserts, and other foods	FSANZ
Recall in the United Kingdom of several quinoa puff products due to possible allergen presence (milk)	6/8/2021	Australia, Bahrain, Belgium, Costa Rica, Cyprus, Finland, Germany, Ghana, Hungary, Iceland, Latvia, Malaysia, Malta, Mexico, Netherlands (Kingdom of the), New Zealand, Norway, Russian Federation, Singapore, South Africa, Sweden, Sweden, Trinidad and Tobago, United Arab Emirates, United Kingdom	Allergen	Milk	Cereals and cereal-based products	FSA
Recall in Australia of Green Curry Kale Chips produced locally, due to the presence of an undeclared allergen (cashews)	6/9/2021	Australia, Singapore	Allergen	Cashew	Snacks, desserts, and other foods	FSANZ
Cases of <i>Salmonella</i> Weltevreden in the USA suspected to be linked to imported frozen shrimps	6/9/2021	Belgium, Canada, China, France, Germany, India, Japan, Mexico, Netherlands (Kingdom of the), New Zealand, Portugal, Singapore, South Africa, the Republic of Korea, United Kingdom, United States of America	Biological	<i>Salmonella</i>	Fish and other seafood	ECDC
A multi-provincial cluster of <i>Listeria monocytogenes</i>	6/9/2021	Canada	Biological	<i>Listeria monocytogenes</i>	Unknown	ECDC
Botulism case in Ukraine possibly linked to the consumption of tuna	6/10/2021	Italy, Ukraine	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	INFOSAN ECP/FP
Recall in the UK of cottage pie due to the presence of plastic	6/11/2021	France, Ireland, Spain, Türkiye, United Kingdom	Physical	Plastic	Composite food	INFOSAN ECP/FP

Detection of <i>Salmonella</i> in Curry powder in Austria, imported from Türkiye via Germany	6/14/2021	Austria, Germany, Türkiye	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Detection of <i>Salmonella</i> in Sweden in dried oregano from Chile	6/14/2021	Chile, India, Sweden	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
<i>Salmonella</i> detection in the UK in dumplings produced locally	6/17/2021	Belgium, Bulgaria, France, United Kingdom	Biological	<i>Salmonella</i>	Composite food	FSA
Detection of milk protein in dairy-free chocolate from Belgium	6/16/2021	Belgium, United Kingdom	Allergen	Milk	Snacks, desserts, and other foods	FSA
Recall in Canada of tahini from Lebanon due to <i>Salmonella</i> concerns	6/18/2021	Canada, Lebanon	Biological	<i>Salmonella</i>	Nuts and oilseeds	CFIA
Case of Hepatitis A in Australia linked to consumption of dates	6/21/2021	Australia, United Kingdom	Biological	Hepatitis A	Fruit and fruit products	FSANZ
Identification in the United Kingdom of an undeclared allergen (milk) in pork manufactured in Romania	6/23/2021	Romania, United Kingdom	Allergen	Milk	Meat and meat products	FSA
<i>Listeria</i> in cheese from Ireland distributed internationally	6/25/2021	Ireland, Japan, United States of America	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in France of yellowfin tuna due to the presence of histamine, originating from Sri Lanka	6/29/2021	France, Sri Lanka	Chemical	Histamine	Fish and other seafood	RASFF
Detection of <i>Salmonella</i> in mustard seeds in the Netherlands (Kingdom of the), originating from the Russian Federation	6/30/2021	Netherlands (Kingdom of the), Russian Federation	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Detection of foreign bodies (glass fragment, beetles and beetle fragments) in Freekeh in Germany, originating from Türkiye	6/30/2021	Germany, Türkiye	Physical	Glass	Legumes and pulses	RASFF
Detection of <i>Salmonella</i> in whole banana chips in the Netherlands (Kingdom of the), originating from Philippines	6/30/2021	Albania, Kuwait, Netherlands (Kingdom of the), Oman, Philippines, Serbia, South Africa, United Arab Emirates	Biological	<i>Salmonella</i>	Snacks, desserts, and other foods	RASFF
An outbreak of Salmonellosis in Finland linked to consumption of fresh salad	7/1/2021	Finland	Biological	<i>Salmonella</i>	Vegetables and vegetable products	Outbreak
Multistate outbreak of <i>Listeria</i> infections linked to fully cooked chicken	7/5/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	US CDC
Multi-country recalls of black-eyed beans from Portugal due to the detection of chlorpyrifos, distributed internationally	7/5/2021	Cabo Verde, Portugal	Chemical	Chlorpyrifos	Legumes and pulses	RASFF
International Norovirus outbreak linked to the consumption of oysters	7/7/2021	China Hong Kong SAR, United Kingdom	Biological	Norovirus	Fish and other seafood	FSA
Recall in Canada of cumin powder from India, due to the presence of <i>Salmonella</i> spp.	7/12/2021	Australia, Canada, India	Biological	<i>Salmonella</i>	Herbs, spices and condiments	CFIA

Recall in Canada of burrata cheese from Italy, due to the presence of <i>Listeria monocytogenes</i>	7/15/2021	Canada, Italy	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	CFIA
Detection in the UK of foreign Body (knife) found in chicken supplied from the Netherlands (Kingdom of the)	7/14/2021	Netherlands (Kingdom of the), United Kingdom	Physical	Knife	Meat and meat products	FSA
Detection of <i>Salmonella</i> spp. in cumin seeds in Germany, originating from Lebanon	7/16/2021	Germany, Lebanon	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
An outbreak of Salmonellosis in Europe linked to tahini and halva from Syrian Arab Republic	7/16/2021	Syrian Arab Republic	Biological	<i>Salmonella</i>	Snacks, desserts, and other foods	RASFF
An outbreak of salmonellosis in France linked to fuet manufactured in Spain	8/9/2021	Andorra, Bahrain, Burkina Faso, France, Guinea, Japan, Qatar, Spain	Biological	<i>Salmonella</i>	Meat and meat products	RASFF
Recall in Canada hummus from Jordan, due to undeclared sesame	7/21/2021	Canada, Jordan	Allergen	Sesame	Composite food	CFIA
<i>Vibrio</i> outbreak in Washington, USA linked to the consumption of oysters	7/27/2021	Cambodia, Canada, China, Singapore, the United States of America	Biological	<i>Vibrio</i>	Fish and other seafood	PAHO/IHR
Detection of histamine and ascorbic acid in frozen yellowfin tuna in Italy, originating from India	7/23/2021	India, Italy	Chemical	Histamine	Fish and other seafood	RASFF
Border rejection in Greece of hulled sesame seeds dispatched from Türkiye, due to the presence of <i>Salmonella</i>	7/23/2021	Greece, Nigeria, Türkiye	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Recall in Spain of crunchy cereal flakes and chocolate from France due to the presence of an undeclared milk	7/23/2021	Andorra, France, Spain	Allergen	Milk	Cereals and cereal-based products	RASFF
Scombroid syndrome in Italy linked to the consumption of tuna pieces in olive oil from Côte d'Ivoire	7/26/2021	Côte d'Ivoire, Italy	Chemical	Histamine	Fish and other seafood	RASFF
Recall in France of Organic Juice drink due to the presence of <i>Bacillus cereus</i>	7/26/2021	France, United Kingdom	Biological	<i>Bacillus cereus</i>	Fruit and vegetable juices	FSA
Cases of botulism in Ukraine linked to the consumption of fish	7/26/2021	Ukraine	Biological	<i>Clostridium botulinum</i>	Fish and other seafood	EURO IHR
Detection in France of <i>Vibrio parahaemolyticus</i> in frozen peeled shrimps from India	7/27/2021	France, India	Biological	<i>Vibrio parahaemolyticus</i>	Fish and other seafood	RASFF
Foreign bodies (glass fragments) in foie gras manufactured in France	7/28/2021	France, China Hong Kong SAR	Physical	Glass	Meat and meat products	RASFF
Recall in Canada of Roquefort blue cheese from France due to the detection of <i>E. coli</i>	7/29/2021	Canada, France, Israel, United Kingdom	Biological	<i>E. coli</i>	Milk and dairy products	CFIA
Shellfish to be recalled due to high levels of <i>E. coli</i> found after sampling	7/28/2021	France, United Kingdom	Biological	<i>E. coli</i>	Fish and other seafood	FSA
Recall in Italy of butter due to the presence of undeclared allergen (gluten) manufactured locally	7/30/2021	Italy, Monaco, San Marino	Allergen	Gluten	Milk and dairy products	RASFF

Listeriosis cluster CC217 t5.12 in the United Kingdom linked to smoked salmon manufactured in Germany	7/29/2021	Germany, United Kingdom	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	FSA
Recall of cheddar cheese produced in Ireland due to the presence of <i>Listeria monocytogenes</i>	8/2/2021	Ireland, Japan, Ukraine	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in Canada of frozen mangoes due to possible Hepatitis A contamination	8/2/2021	Canada, Mexico	Biological	Hepatitis A	Fruit and fruit products	Outbreak
Border rejection in the United Kingdom of vegetable products originating from Thailand	8/4/2021	Thailand, United Kingdom	Biological	<i>Salmonella</i>	Vegetables and vegetable products	FSA
Recall in Australia of dates from Jordan, due to the possible microbial contamination (Hepatitis A)	8/10/2021	Australia, Jordan	Biological	Hepatitis A	Fruit and fruit products	FSANZ
Detection of <i>Salmonella</i> Kentucky in mint from Kenya	8/11/2021	Finland, Kenya	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Recall in Canada of raw cow milk cheese manufactured in Italy, due to the presence of <i>Staphylococcus aureus</i>	8/5/2021	Canada, Italy	Biological	<i>Staphylococcus aureus</i>	Milk and dairy products	CFIA
Recall in France of reblochon cheese locally produced due to the detection of <i>Listeria monocytogenes</i> , distributed internationally	8/13/2021	China, France	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Food poisoning in Italy linked to the consumption of frozen common cockle from France contaminated with Norovirus	8/16/2021	France, China Hong Kong SAR, Italy	Biological	Norovirus	Fish and other seafood	RASFF
Recall in South Africa of canned products due to can defect	8/10/2021	South Africa	Physical	Can defect	Vegetables and vegetable products	INFOSAN ECP/FP
Recall in Italy of shelled cooked frozen clams from Viet Nam, due to the presence of <i>Salmonella</i>	8/19/2021	Italy, Viet Nam	Biological	<i>Salmonella</i>	Fish and other seafood	RASFF
<i>Bacillus cereus</i> in ground ginger from Niger	8/19/2021	Niger, Spain	Biological	<i>Bacillus cereus</i>	Herbs, spices and condiments	RASFF
Recall in Germany of tomato flakes from China, due to the presence of <i>Salmonella</i>	8/20/2021	Australia, Belarus, Brazil, Canada, China, Germany, Panama	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
<i>Salmonella</i> infantis in fried pork rind snack	8/20/2021	Canada, Cyprus, Czechia, Denmark, Germany, China Hong Kong SAR, Italy, Lithuania, Malta, Netherlands (Kingdom of the), New Zealand, Spain, United Arab Emirates, United Kingdom	Biological	<i>Salmonella</i>	Meat and meat products	FSA
Detection in Germany of foreign matter (glass) in a sea salt product from Spain	8/20/2021	Albania, Germany, Spain, Thailand	Physical	Glass	Herbs, spices and condiments	RASFF

Milk protein not declared on the labeling in cured loin from Spain distributed internationally	8/24/2021	Andorra, Canada, Chile, China, Hong Kong SAR, Indonesia, Lebanon, Mexico, Republic of Korea	Allergen	Milk	Meat and meat products	RASFF
Recall in the UK of patatas bravas with aioli dip from Germany due to undeclared allergen (milk)	8/20/2021	Germany, United Kingdom	Allergen	Milk	Vegetables and vegetable products	FSA
Recall in the Netherlands (Kingdom of the) of ground coriander from India, due to the presence of <i>Salmonella</i>	8/25/2021	India, Netherlands (Kingdom of the)	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Possible presence of a foreign body in soft wheat flours from Italy	8/26/2021	Canada, Italy, United Kingdom	Physical	Foreign body	Cereals and cereal-based products	RASFF
Detection of foreign body in potato chip products manufactured in Netherlands (Kingdom of the)	8/26/2021	Netherlands (Kingdom of the), United Kingdom	Physical	Glass	Snacks, desserts, and other foods	FSA
Food poisoning reports possibly linked to the consumption of tuna sandwiches from Ukraine	8/27/2021	Ukraine, United States of America	Biological	Unknown	Composite food	PAHO/IHR
Multistate outbreak of <i>Salmonella</i> infections linked to Italian-style meats	8/27/2021	United States of America	Biological	<i>Salmonella</i>	Meat and meat products	US CDC
Recall in Canada of chopped salad kit from the United States of America due to <i>Listeria monocytogenes</i>	8/30/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	PAHO/IHR
Recall in Italy of spicy pepper filled with tuna and capers from the Republic of North Macedonia, due to the presence of undeclared allergens	8/30/2021	Italy, Republic of North Macedonia	Allergen	Soy	Composite food	RASFF
Recall in Canada of enoki mushrooms imported from the Republic of Korea, due to the presence of <i>Listeria monocytogenes</i>	9/3/2021	Canada, Republic of Korea	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	CFIA
Reports of cases of Listeriosis in Chile with unknown origin	9/9/2021	Chile	Biological	<i>Listeria monocytogenes</i>	Unknown	Outbreak
Multi-country outbreak of Shiga toxin-producing <i>E. coli</i> (STEC) O103:H2, stx1a in the EU/EEA	9/13/2021	Denmark, Finland, Sweden	Biological	<i>E. coli</i>	Unknown	EURO IHR
Detection of <i>Listeria monocytogenes</i> in smoked salmon in France, produced locally and distributed internationally	9/15/2021	France, Qatar	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Recall in Germany of Organic Bacopa Monnieri (Brahmi) powder from India, due to the presence of <i>Salmonella</i>	9/15/2021	Germany, India	Biological	<i>Salmonella</i>	Products for special nutritional use	RASFF
An outbreak of STEC O157 in the United Kingdom linked to watermelons from Spain	9/16/2021	Spain, United Kingdom	Biological	<i>E. coli</i>	Fruit and fruit products	Outbreak
Pieces of glass in canned mackerel from Morocco	9/17/2021	Croatia, Morocco	Physical	Glass	Fish and other seafood	RASFF

Recall in Canada of enoki mushrooms imported from the Republic of Korea, due to the presence of <i>Listeria monocytogenes</i>	9/1/2021	Canada, Republic of Korea	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	CFIA
Detection of <i>Salmonella</i> Njala in coconut shavings in Italy, with raw material originating from the Côte d'Ivoire	9/17/2021	Côte d'Ivoire, Italy	Biological	<i>Salmonella</i>	Fruit and fruit products	RASFF
Recall in Australia of Smoothie imported from Germany, due to the presence of plastic	9/20/2021	Australia, Germany	Physical	Plastic	Non-alcoholic beverages	FSANZ
An outbreak of Salmonellosis in the United States of America with an unknown food source	9/20/2021	United States of America	Biological	<i>Salmonella</i>	Unknown	US CDC
An outbreak of Salmonellosis in Canada linked to shredded pork products	9/24/2021	Canada	Biological	<i>Salmonella</i>	Meat and meat products	Outbreak
Detection in the United Kingdom of foreign body in flour from France	9/28/2021	France, United Kingdom	Physical	Plastic	Cereals and cereal-based products	FSA
Recall in Australia of Cookies originating from China, due to the presence of undeclared allergen	9/30/2021	Australia, China	Allergen	Soy	Snacks, desserts, and other foods	FSANZ
Reports of illnesses in China Hong Kong SAR linked to consumption of raw oysters from South Africa	10/4/2021	China Hong Kong SAR, South Africa	Biological	Unknown	Fish and other seafood	Outbreak
An outbreak of illness in Singapore linked to consumption of imported pastries from Malaysia	10/6/2021	Malaysia, Singapore	Biological	Unknown	Snacks, desserts, and other foods	Outbreak
Recall in Italy of domestically manufactured broth powders due to undeclared peanuts	10/5/2021	Canada, Panama, the Republic of Korea, the United States of America	Allergen	Peanuts	Herbs, spices and condiments	RASFF
Recall in the United Kingdom of ice cream due to potential plastic contamination	10/6/2021	United Kingdom	Physical	Plastic	Snacks, desserts, and other foods	FSA
Detection of <i>E. coli</i> in razor clams harvested in the United Kingdom	10/6/2021	China Hong Kong SAR, United Kingdom	Biological	<i>E. coli</i>	Fish and other seafood	FSA
Recall in Canada of vegan and vegetarian products from China	10/12/2021	Australia, Canada, China	Allergen	Eggs	Products for special nutritional use	FSANZ
An outbreak of Hepatitis A virus in Norway linked to an unknown food source	10/7/2021	Norway	Biological	Hepatitis A	Fruit and fruit products	Outbreak
Recall in Germany of halva with pistachios from Türkiye due to the presence of <i>Salmonella</i>	10/11/2021	Germany, Türkiye	Biological	<i>Salmonella</i>	Nuts and oilseeds	RASFF
Detection in the Netherlands (Kingdom of the) of glass in roasted paprika product from Türkiye	10/11/2021	Belgium, Greece, Netherlands (Kingdom of the), Türkiye	Physical	Glass	Vegetables and vegetable products	RASFF
An outbreak of Salmonellosis in the United States of America linked to seafood	10/11/2021	United States of America	Biological	<i>Salmonella</i>	Fish and other seafood	US CDC

Detection of <i>Salmonella</i> spp. in spearmint leaves in Germany, originating from Egypt	10/12/2021	Egypt, Germany	Biological	<i>Salmonella</i>	Herbs, spices and condiments	RASFF
Recall in South Africa of Apple Juice due to detection of Mycotoxin	10/12/2021	Benin, Comoros, Democratic Republic of the Congo, Ethiopia, Gabon, Ghana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Myanmar, Oman, Portugal, Seychelles, Sierra Leone, Singapore, South Africa, United Republic of Tanzania, Uganda, United Arab Emirates, Zambia, Zimbabwe	Chemical	Mycotoxin Patulin	Fruit and vegetable juices	INFOSAN ECP/FP
Recall in the UK of dark chocolate with raisins and almonds due to undeclared hazelnuts	10/13/2021	Antigua and Barbuda, Barbados, Cyprus, Ghana, Greece, Kuwait, Malta, Mauritius, United Kingdom	Allergen	Hazelnuts	Nuts and oilseeds	FSA
Recall in Canada of sliced olives originating from Egypt, due to the potential presence of <i>Clostridium botulinum</i>	10/18/2021	Canada, Egypt	Biological	<i>Clostridium botulinum</i>	Fruit and fruit products	CFIA
Detection in Poland of <i>Salmonella</i> in dried Mexican peppers from Mexico	10/18/2021	Mexico, Poland	Biological	<i>Salmonella</i>	Vegetables and vegetable products	RASFF
Detection of <i>Listeria monocytogenes</i> in blue cheese from Italy, distributed internationally	10/18/2021	Italy, Poland, United States of America	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Detection of <i>Listeria monocytogenes</i> in smoked salmon from Serbia, distributed internationally	10/20/2021	Italy, Serbia	Biological	<i>Listeria monocytogenes</i>	Fish and other seafood	RASFF
Recall in Iceland of instant noodles from Thailand due to the detection of a foreign body (glass)	10/22/2021	Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands (Kingdom of the), Poland, Portugal, Sweden, Switzerland, Thailand	Physical	Glass	Composite food	RASFF
Detection in Ireland of undeclared allergen in curry powder from India (peanut)	10/26/2021	India, Ireland	Allergen	Peanuts	Herbs, spices and condiments	RASFF
Cancellation of Sanitary registrations of alcoholic beverages in Costa Rica	10/28/2021	Costa Rica	Chemical	Metanol	Alcoholic beverages	INFOSAN ECP/FP
Recall in UK of confectionary from Germany due to packaging error resulting in undeclared allergens on labelling (wheat)	10/27/2021	Germany, United Kingdom	Allergen	Wheat	Snacks, desserts, and other foods	FSA

Media reports of suspected high levels of acrylamide in biscuits and crackers from Malaysia, distributed internationally	10/29/2021	Malaysia	Chemical	Acrylamide	Snacks, desserts and other foods	INFOSAN ECP/FP
Recall in the United Kingdom of Chinese style wing products due to presence of undeclared allergen (soy)	10/29/2021	China Hong Kong SAR, United Kingdom	Allergen	Soy	Meat and meat products	FSA
Detection of undeclared allergen in protein bar from Germany, internationally distributed	11/3/2021	Germany	Allergen	Peanuts	Snacks, desserts, and other foods	RASFF
Detection in Spain of undeclared soy in candies from Japan	11/4/2021	Japan, Spain	Allergen	Soy	Snacks, desserts, and other foods	RASFF
Recall in Canada of broccoli sprouting seeds from the United States of America due to <i>Salmonella</i>	11/7/2021	Canada, United States of America	Biological	<i>Salmonella</i>	Vegetables and vegetable products	PAHO/IHR
Undeclared soy on various types of noodles from the Philippines	11/8/2021	Philippines	Allergen	Soy	Cereals and cereal-based products	RASFF
Histamine (> 800 mg/kg-ppm) in frozen mackerel from Morocco	11/8/2021	Morocco, Spain	Chemical	Histamine	Fish and other seafood	RASFF
<i>Salmonella</i> Bareilly and <i>Bacillus cereus</i> (enterotoxin) in tumeric from Bosnia and Herzegovina	11/10/2021	Bosnia and Herzegovina, Serbia	Biological	<i>Bacillus cereus</i> and <i>Salmonella</i> Bareilly	Herbs, spices and condiments	RASFF
Recall in Australia of Strawberry from Japan due to the presence of undeclared allergen (egg)	11/11/2021	Australia, Japan	Allergen	Eggs	Sugar and confectionary	FSANZ
Recall in the UK of Salmon En Croute because of undeclared prawns	11/8/2021	United Kingdom	Allergen	Shellfish	Fish and other seafood	FSA
Detection in Greece of sulfite-reducing bacteria in salted sheep casings from Iran (Islamic Republic of)	11/9/2021	Greece, Iran (Islamic Republic of)	Biological	<i>Clostridium</i>	Meat and meat products	RASFF
Recall in the USA of salami sticks due the possible presence of <i>Salmonella</i>	11/15/2021	United States of America	Biological	<i>Salmonella</i>	Meat and meat products	PAHO/IHR
An outbreak of Shiga toxin-producing <i>E. coli</i> in the United Kingdom with an unknown source	11/11/2021	United Kingdom	Biological	<i>E. coli</i>	Unknown	Outbreak
Undiagnosed disease in the Democratic Republic of the Congo	11/18/2021	Democratic Republic of the Congo	Undetermined	Unknown	Unknown	Outbreak
Recall in Canada of burrata cheese from Italy due to the detection of <i>E. coli</i>	11/16/2021	Canada, Italy	Biological	<i>E. coli</i>	Milk and dairy products	CFIA
Detection in Romania of <i>L. monocytogenes</i> in pig head cheese produced locally and distributed internationally	11/18/2021	Romania	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Detection of <i>Listeria monocytogenes</i> in chilled sliced garlic sausages from France, distributed internationally	11/18/2021	France, United Kingdom	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF

An outbreak in Australia of <i>Vibrio parahaemolyticus</i> linked to raw oysters locally produced	11/19/2021	Australia, Brunei Darussalam, China, China Hong Kong SAR, Japan, Malaysia, Maldives, Singapore, Viet Nam	Biological	<i>Vibrio parahaemolyticus</i>	Fish and other seafood	FSANZ
Undeclared allergens in confectionary products from Iran (Islamic Republic of)	11/22/2021	Germany, Iran (Islamic Republic of)	Allergen	Almonds and pistachio	Sugar and confectionary	RASFF
Recall in Australia of chocolate bars due to the presence of undeclared allergen (milk), originating from the USA	11/19/2021	United States of America	Allergen	Milk	Snacks, desserts, and other foods	FSANZ
Undeclared allergens (milk) in confectionary cookie products from the Netherlands	11/23/2021	Canada, Netherlands (Kingdom of the)	Milk	Sugar and confectionary	RASFF	RASFF
Suspected cases of CJD linked to beef consumption in Brazil	11/25/2021	Brazil	Biological	Prions	Meat and meat products	ECDC
Recall in the UK of fish pie due to undeclared egg, distributed internationally	11/25/2021	United Kingdom	Allergen	Eggs	Composite food	FSA
Detection in the USA of <i>L. monocytogenes</i> in cauliflower from China	11/25/2021	China, United States of America	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	Outbreak
Recall in the USA of several types of beverages due to the possible presence of foreign material	11/24/2021	Republic of Korea, United States of America	Physical	Foreign body	Non-alcoholic beverages	PAHO/IHR
Detection of <i>Salmonella</i> spp. in sesame snack in Switzerland, originating from India	11/26/2021	India, Switzerland	Biological	<i>Salmonella</i>	Snacks, desserts and other foods	RASFF
Recall in Canada of hulled sesame seeds originating from India, due to the presence of <i>Salmonella</i>	12/2/2021	Canada, India	Biological	<i>Salmonella</i>	Nuts and oilseeds	CFIA
Recall in Canada of apricot kernels originating from China, due to the excessive presence of amygdaline	12/1/2021	Canada, China	Chemical	Amygdaline	Nuts and oilseeds	CFIA
Recall in Canada of cheese originating from Switzerland, due to elevated counts of <i>Staphylococcus aureus</i>	12/7/2021	Canada, Switzerland	Biological	<i>Staphylococcus aureus</i>	Milk and dairy products	CFIA
Detection in Belgium of plastic pieces in raspberry crumble from Poland	12/9/2021	Albania, China, Jordan, Saudi Arabia	Physical	Plastic	Snacks, desserts, and other foods	RASFF
Detection of <i>Listeria monocytogenes</i> in dry sausages produced in France and distributed internationally	12/9/2021	France, Guinea	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Detection of <i>Listeria monocytogenes</i> and <i>Salmonella enterica</i> ser. Derby in chilled beef tartare from Poland	12/9/2021	United Kingdom	Biological	<i>Listeria monocytogenes</i>	Meat and meat products	RASFF
Higher than Declared Protein Content in a Flour Sticks	12/13/2021	Philippines, United Kingdom	Compliance	High protein	Cereals and cereal-based products	FSA

Recall of nut products in South Africa due to the possible presence of <i>Salmonella</i> Typhimurium, distributed internationally	12/10/2021	Botswana, Namibia, South Africa	Biological	<i>Salmonella</i>	Nuts and oilseeds	INFOSAN ECP/FP
Recall in Portugal of margarine due to the presence of allergen (milk)	12/13/2021	Andorra, Portugal	Allergen	Milk	Fats and oils of animal and vegetable origin	RASFF
Border rejection in Italy of noodles with undeclared soya, originating from the Philippines	12/14/2021	Italy, Philippines	Allergen	Soy	Composite food	RASFF
Recall in France of cheese, due to the presence of <i>Listeria monocytogenes</i> , produced locally and distributed internationally	12/14/2021	France, United Arab Emirates	Biological	<i>Listeria monocytogenes</i>	Milk and dairy products	RASFF
Recall in the United States of America of honey wheat bread due to the presence of undeclared milk	12/22/2021	United States of America	Allergen	Milk	Cereals and cereal-based products	Outbreak
A multi-country cluster of <i>Listeria monocytogenes</i>	12/23/2021	Denmark	Biological	<i>Listeria monocytogenes</i>	Unknown	Outbreak
Two Multistate Outbreaks of <i>Listeria</i> Infections Linked to Packaged Salads	12/21/2021	United States of America	Biological	<i>Listeria monocytogenes</i>	Vegetables and vegetable products	PAHO/IHR
Foreign body (metal) found in goat's butter	12/23/2021	United Kingdom, United States of America	Physical	Metal	Fats and oils of animal and vegetable origin	FSA
Recall in Canada of tahini from Lebanon, due to the presence of <i>Salmonella</i>	12/27/2021	Canada, Lebanon	Biological	<i>Salmonella</i>	Nuts and oilseeds	CFIA

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