

Chapter 3: Safe and sound, the latest trends in food incidents and food crime

Even with the most stringent checks in place, there are circumstances where the quality, safety and integrity of our food may be compromised. When this happens, it requires a rapid response to identify the problem and remove products from the market before they can cause harm.

At a glance

In this chapter we will look at:

- what we know about the scale and nature of food and feed incidents today
- how our food crime units are operating and what we can learn from the available data
- how we responding to emerging risks across our food supply chain

Introduction

Even with the most stringent checks in place, there are circumstances where the quality, safety and integrity of our food may be compromised. When this happens, it requires a rapid response to identify the problem and remove products from the market before they can cause harm.

The FSA's Incidents and Resilience Unit in England and Consumer Protection Teams in Wales and Northern Ireland co-ordinate the response to food and feed incidents, and some aspects of foodborne illness outbreaks [21] – while the Scottish Food Crime and Incidents Unit (SFCIU) carries out a parallel role through its Incidents team.

The SFCIU also has responsibility for the investigation of serious food fraud and associated criminality across Scotland, while the National Food Crime Unit (NFCU) covers England, Wales and Northern Ireland [22]. Both units collaborate closely with local authorities and policing partners, which also have a role in food crime investigations.

As this chapter shows, this work goes to the heart of several key aspects of food standards, including food safety and hygiene, authenticity and labelling, composition standards and official controls. Local authorities may also lead on food crime investigations.

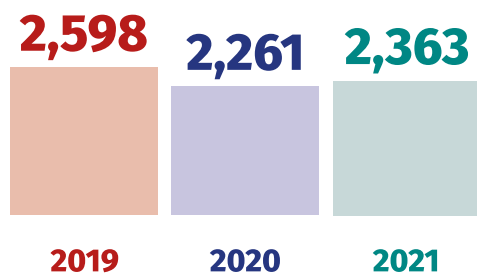
Food and feed incidents

A food incident occurs when a concern is raised about the safety, quality or integrity of food, which may require action to protect consumers [23]. Notifications of food incidents can come from many sources, including local authorities, port health authorities, government organisations, the food industry, other countries, and consumers themselves.

The number of notified food incidents rose for several years after 2010 as a result of new regulations and advances in technology, science and analytical methods, which led to better detection and reporting [24]. The key observations from the 2019 to 2021 data are included in the next section.

Observation 1: Food incident rates appear to be returning to expected levels based on previous recorded rates, after falling during the pandemic.

Figure 22: Number of reported food incidents in the UK



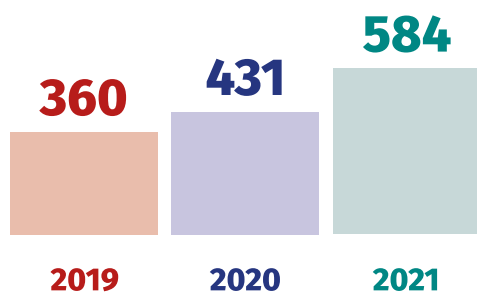
Source: FSA/FSS incident management databases

Source: FSA/FSS incident management databases

Recent data shows there was a fairly sharp downturn in the number of food incident notifications received by the UK during the height of the pandemic in early 2020, with reported cases falling by 13% in 2020 compared to 2019. This was the result of a number of factors including changes in consumer behaviour, the streamlining of food production lines, fewer food businesses operating, and a reduction in the complexity of the product ranges on offer. The number of reported incidents increased steadily throughout 2021, though remained lower than in 2019.

Observation 2: Contamination by harmful micro-organisms was the most frequently reported hazard.

Figure 23: Number of incidents of contamination by harmful micro-organisms in the UK



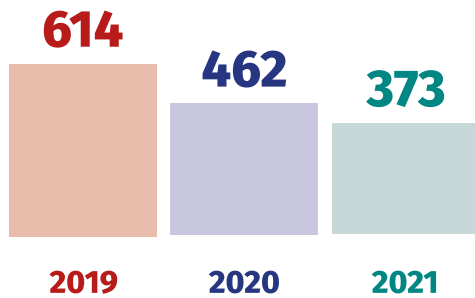
Source: FSA/FSS incident management databases

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Salmonella accounted for the majority of microbiological incidents reported over the last three years. Recent rises can partly be attributed to increased regulatory food surveillance following a series of related foodborne outbreaks in 2020 and 2021, which are covered in this chapter. They also reflect longer-term increases in outbreak notifications resulting from the introduction of WGS, which allows cases of infection to be more definitively linked to a food origin [25].

Observation 3: Chemical contamination was the second most common category reported last year

Figure 24: Number of incidents of chemical contamination in the UK

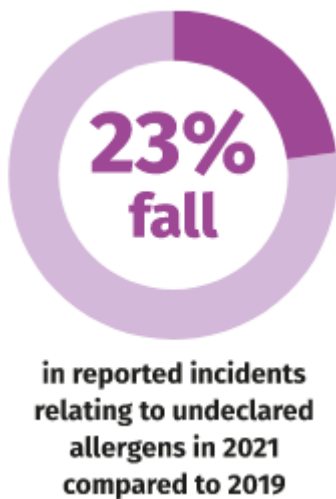


Source: FSA/FSS incident management databases

Source: FSA/FSS incident management databases

A proportion of the contaminant incidents related to widespread EU and UK reporting of non-permitted presence of ethylene oxide in imported sesame seeds and products containing contaminated sesame seeds during 2020 and 2021. These resulted in the withdrawals of affected product across the UK market and should be seen as a reassuring sign that the reporting system was working effectively during the pandemic [26].

Observation 4: Incidents relating to undeclared or incorrectly declared allergens have fallen but remain a major area of concern.

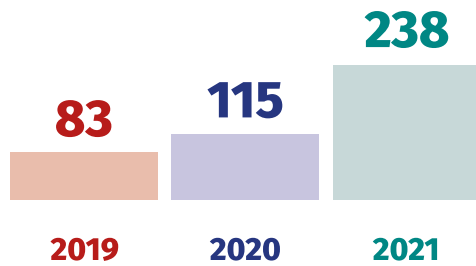


Source: FSA/FSS incident management databases

There were 272 allergen-related cases in 2021, down by nearly a quarter from 355 in 2019. The fall may be the result of heightened media reporting of allergens in food, and the impact of recent changes to labelling laws. The FSA and FSS have also increased their awareness raising campaigns aimed at the public and food businesses in recent years – as have a number of charities.

Observation 5: There have been substantial rises in incidents related to poultry meat during 2020 and 2021.

Figure 25: Number of reported incidents involving poultry meat in the UK



Source: FSA/FSS incident management databases

Source: FSA/FSS Incident management databases

Historically, recorded food incident rates have always tended to be highest in meat and meat products – partly due to the range and frequency of checks that need to be undertaken on these foods. However, between 2019 and 2021 it is notable that there was a nearly three-fold increase in poultry-related incidents following a series of Salmonella outbreaks and associated increases in surveillance activity (see below).

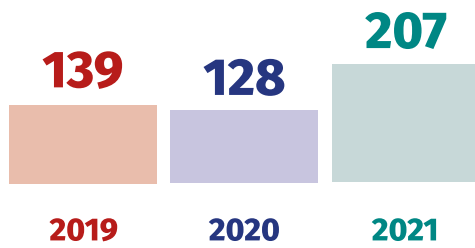
It is important to note that a large volume of foodborne disease cases go unreported. For instance, in the case of Campylobacter, surveillance bodies report approximately [60,000-70,000 confirmed laboratory reports per year](#). However, research estimates that the true number of Campylobacter cases attributable to food is nearer 300,000. Very few of these cases are attributable to outbreaks as they are sporadic and often occur in the home. The FSA and FSS received a single notification for Campylobacter during 2021. In the future, enhanced genomic surveillance for such pathogens, for instance through the PATH-SAFE programme (covered later in this chapter), may provide more accurate methods for identifying the source of more of these cases.

Salmonella in breaded chicken

The rise in poultry-related incidents was largely driven by a series of foodborne outbreaks involving Salmonella in breaded chicken products from Poland in 2020 and 2021, which affected more than a thousand people and a [number of products and brands](#) [27]. In response, the UK Health Security Agency (then PHE) launched a [major survey in 2020](#) to evaluate the scale of the contamination. This was followed by a broader FSA survey which looked for additional pathogens and evidence of antimicrobial resistance. Enhanced control measures have since been implemented by Polish authorities to ensure the safety of poultry imported into the UK.

Observation 6: Dietic foods, food supplements and fortified foods experienced a 49% rise from 2019 in incidents during 2021.

Figure 26: Number of reported incidents involving food supplements in the UK



Source: FSA/FSS incident management databases

Source: FSA/FSS incident management databases

We believe these increases are due to a significant rise in the consumption of food supplements in recent years – especially in the sports nutrition, probiotic and herbal or traditional categories. The FSA and FSS will monitor incidents relating to these products in line with market changes.

Allergy alerts, product recall notices and food alerts for action

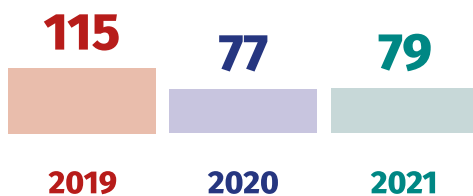
Once a food incident has been identified, a food product may have to be withdrawn or recalled [28]. These actions are industry-led and carried out in close liaison with the FSA and FSS. This partnership approach is usually key to the successful management of an incident. The FSA and FSS will then often issue alerts to let consumers and food businesses know about the issue and trigger certain actions they need to take.

Definition of terms

- an **Allergy Alert** is issued when the product has been, or is being, recalled from consumers because allergen information on food labels is either undeclared (including not in English) or incorrect
- a **Product Recall Information Notice** is issued when there are concerns about the safety of a product, most often due to the contamination, mis-packing or mis-labelling of products
- a **Food Alert For Action (FAFA)** is issued to local authorities and consumers when distribution of products is less well defined or when a food business is not taking the required steps to remove product from sale and remedial intervention action from local authorities is required

The number of allergy alerts increased when new legislation requiring better labelling of allergenic ingredients was introduced in 2017.

Figure 27: Total number of allergy alerts issued in the UK, 2019-21



Source: FSA/FSS Incident Management Systems

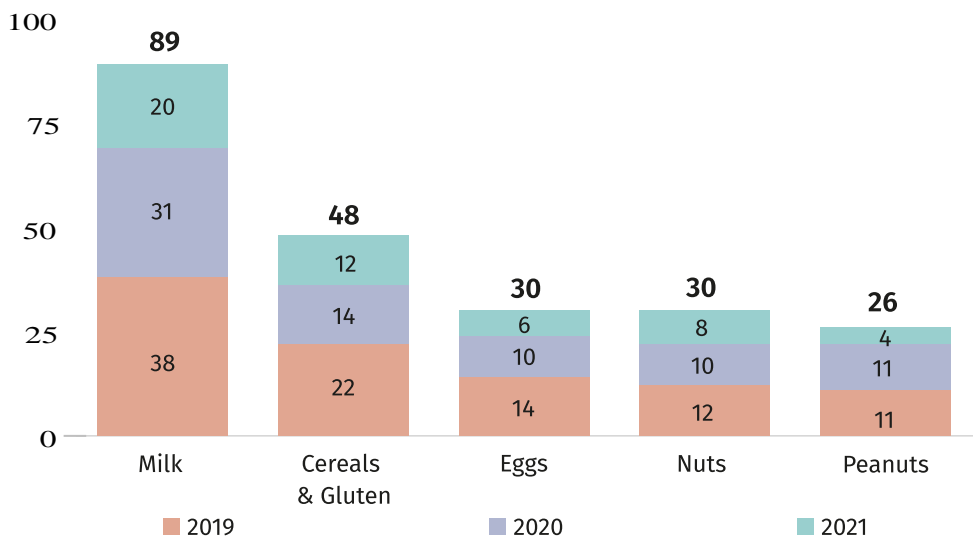
Source: FSA/FSS Incident Management Systems

Milk is consistently the most common food for which an allergy alert was issued, followed by cereals containing gluten and nuts or peanuts. This is a longstanding pattern and reflects the fact that these ingredients are widely used in all types of food product. However, across these categories, the number of reported incidents decreased from 2019 to 2021 – potentially a sign that general awareness of the risks is increasing and that industry practices are improving.

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Allergen related food incidents have fallen in recent years

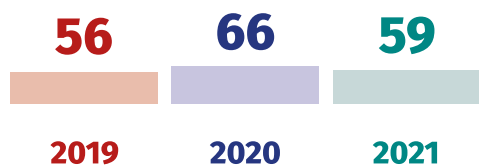
To note, allergy alerts may include one or more of the allergens listed in the table below.



Source: FSA/FSS Incident Management Systems

Meanwhile, the number of product recall notices has remained stable over the last three years with a total of 181 notices issued. Only four FAFA notices were issued over the same period.

Figure 29: Total number of product recall information notices issued in the UK



Source: FSA/FSS Incident Management Systems

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Post-EU developments in food surveillance

As we saw in the previous chapter, the UK's departure from the EU means that it no longer has full access to the rapid alert system run by the European Commission. Before leaving, the UK largely communicated with other countries on food safety issues through the RASFF. The UK now has third country access to this system, which means the FSA and FSS continue to receive relevant notifications affecting the UK.

We have since taken several additional steps to strengthen the way we identify and respond to food risks:

Step 1: Building new international partnerships

The UK uses the International Food Safety Authorities Network (INFOSAN) to communicate with other countries on food safety issues. This has already helped the UK work with the international community in response to a number of major incidents. FSS and the FSA are also key members of the INFOSAN working group.

Step 2: Enhancing global food safety monitoring

A new monitoring team in the FSA uses intelligence from international food alerts, trusted media sources, website searches, and stakeholder engagement to proactively identify potential food risks. This information is shared with FSS where it is relevant to Scotland. These new methods have helped to identify 24 incidents last year, while a further 109 products were referred to other UK authorities for further investigation [29].

Step 3: Improving prevention and risk management

FSS and the FSA also continue to work with food businesses, enforcement authorities and consumer interest groups to improve food safety withdrawals and recall processes. In particular, we are increasing our focus on incident prevention by encouraging local authorities and FBOs to use "root cause analysis" to help them understand what factors cause food incidents to happen and how to prevent them in future.

Step 4: Using next generation science

With advances in WGS and other genetic analysis led by the UK Health Security Agency, the FSA and FSS can now draw upon increasingly sophisticated ways of identifying and understanding foodborne illnesses. This is helping us to identify where cases are linked or probably linked to the same food source and take appropriate action. During 2021, these new systems successfully identified several important food safety issues which are now the subject of incident investigations [30].

The PATH-SAFE project

In 2021, the FSA, FSS, the Department for Environment, Food and Rural Affairs (Defra), the Department of Health and Social Care (DHSC), the UK Health Security Agency (then Public Health England), and the Environment Agency were awarded funding for a major programme of pathogen surveillance. The programme began in late 2021 and will run to March 2024. The PATH-SAFE project is designed to help safeguard UK food, agriculture and consumers by using cutting-edge technology to understand how pathogens and antimicrobial resistance spread. Tracking the

source of these issues will help to develop better control strategies to reduce illness and deaths.

Tackling food crime

Food crime is defined as serious fraud and related criminality within food supply chains, though it also encompasses drink and animal feed³¹. The UK's food crime units, the **National Food Crime Unit (NFCU)**, and the **Scottish Food Crime and Incidents Unit (SFCIU)** are responsible for holding food crime offenders to account and helping businesses and consumers to protect themselves.

The amount of information received by the two units gives a sense of the scale and nature of food crime in the UK, though it does not necessarily show whether the overall rate of crime is increasing or falling – partly because consumers or food businesses are often unaware that they have been a victim. A number of observations can be drawn from the available evidence.

Observation 1: the focus of the food crime intelligence reports received aligns closely with the crime units' strategic priorities.

The 2021 figures show that the majority of food crime intelligence received was related to the respective priorities of the units, as set out below. Of the 1,747 food crime intelligence reports (defined as pieces of information relating to a new or already identified food crime) received during 2021, more than two-thirds (69%) related to these strategic priorities.

NFCU control strategic priorities 2021 to 2022

- dangerous non-foods
- red meat
- illicit and counterfeit alcohol
- shellfish
- animal by-products
- illicit supply to meet community demand
- European Distribution Fraud
- e-commerce
- food service

SFCIU control strategy priorities 2021 to 2022	SFCIU key thematics 2021 to 2022
Fish	Serious organised crime overlaps
Red meat	Misrepresentation of premium status
Alcohol	E-commerce

SFCIU control strategy priorities 2021 to 2022	SFCIU key themes 2021 to 2022
Wild Shellfish	High-risk supply chains Fraud around allergens or plant-based products EU Exit COVID-19

Observation 2: 21 live investigations were underway across the two UK food crime units at the end of 2021.

In Scotland, SFCIU investigations have spanned issues involving counterfeit alcohol and the misrepresentation of beef and other foodstuffs as well as a serious animal welfare case. Five cases have been referred to the Crown Office and Procurator Fiscal Service, with three of these being considered under petition procedure reserved for the most serious offences.

In England, Wales and Northern Ireland, the NFCU investigated a variety of issues including the illegal diversion of waste product from meat production into the human food chain, the false declaration of ingredients used in food manufacture, and the illegal sale of the toxic chemical 2,4 dinitrophenol (DNP), which is sometimes dangerously promoted as a weight loss aid.

Last year also saw the first prosecution stemming from an investigation by the National Food Crime Unit. The conviction related to the sale of 2,4 dinitrophenol (DNP) alongside other offences linked to controlled drugs and prescription-only medicines. A defendant was jailed for over two years after pleading guilty to the offences.

Observation 3: a total of 100 'disruptions' were carried out by UK food crime units during 2021.

Prosecutions are not the only way to fight food crime. The units also focus on a range of measures that obstruct or prevent criminal behaviour in the first place, and support consumers and businesses by providing practical guidance on what they can do to protect themselves, including through the new [Food Fraud Resilience Tool](#).

The NFCU describes any work it does which has a clear impact on a food crime threat as a 'disruption' and reports it to the National Crime Agency (NCA). During 2021 the NFCU recorded 60 such disruptions, including:

- the indefinite suspension of a person's approval to handle animal by-products (ABP) following the identification of ABP being diverted into the human food chain
- the takedown of 34 websites or marketplace listings selling 2,4-Dinitrophenol (DNP) for human consumption
- working with partners to bring about the seizure and destruction of a large quantity of fish unfit for human consumption at a fish market in October 2021.

The SFCIU contributed to 40 actions which have helped to detect, disrupt, or deter criminal activity. These are helping to counter low-level food crime activity as well as contributing to investigations of more serious offences, and include:

- an investigation into the sale and distribution of suspected counterfeit confectionery across the UK
- work with local authorities on numerous occasions to establish the veracity of intelligence and take enforcement action where appropriate.

Looking to the future

Changes in the pattern of food crime tend to echo developments in how the food supply system is organised and what we as consumers prioritise.

During the pandemic, some foods and supplements made improper claims related to COVID-19, though offences were small-scale and largely investigated by local authorities and other partners.

Overall, there was no discernible increase in food crime as a result of the pandemic. Equally, there is little evidence that criminals have been exploiting our departure from the EU, though both food crime units remain vigilant.

Looking ahead, the two food crime units are now building stronger relationships with online food retail platforms, food producers, and other stakeholders to pre-empt any possible increases in fraud or other illegal practices over the coming years.

Through the Global Alliance on Food Crime, they are also taking a prominent role in international initiatives to tackle food crime, including active involvement in [Operation OPSON](#), which targets counterfeit and substandard food and drink globally. Finally, in Scotland, the SFCIU is working with multiple agencies to address specific criminal activities involving livestock, with investigations underway into suspected ear tag fraud, illegal use of cattle passports and animal welfare concerns.

In summary

- our international collaboration and surveillance and response systems have changed as a result of our departure from the EU. There is no evidence to suggest that criminal activity in food supply chains has increased. Both food crime units will continue to monitor emerging threats closely
- reported cases of food incidents and intelligence received around food crime remain relatively stable – there was a fall in certain types of food incidents reported during the peak of the pandemic, but levels are now returning to pre-COVID-19 levels