

Food safety and technology Part 1 of 4

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Food recalls

There once was a time when “recall” was a verb. “Recall” is now a household word owing to the rising prevalence of “food recalls” – a systematic removal of food from the food supply. The first regulator known to spearhead a food recall was the USA’s FDA in 1920 of [canned olives due to botulism](#). General recollection (pun not intended) of more recent and massive food recalls include the 1996 ban of British beef due to cattle ill with BSE ([Bovine spongiform encephalopathy](#)), the deliberate tainting of several Chinese dairy products – including infant formula – with melamine in 2008, and in Canada, the nationwide cull of [ground beef contaminated](#) with E.coli O157:H7 in 2012.


Of times past or of more in the future?


Regulators are not particularly proud of their apt food recall systems, given the root cause; their preference is to have none at all. One of the goals of recent national food safety legislation is to pre-emptively and significantly decrease, or completely eliminate, food recalls. However, given the increasing frequency of food recalls, one needs to ask whether we as a global society are becoming de-sensitized to the disruption, and in some cases, trauma, of a food recall.


Class 1, Class 2 and Class 3 Recalls

Most jurisdictions assign a recall into one of these three categories. Class 1 is triggered by an immediate threat to public safety – such as an undeclared priority food allergen – and necessitates removal of the food throughout the supply chain as well as warnings issued to the general public. Class 2, commonly called a withdrawal, results from a finding of no immediate threat to public safety but a possible such outcome over an extended period of time – such as a non-compliant high level of food colouring. Food is removed from the supply chain without consumer notification. A Class 3 example is Economically Motivated Adulteration (EMA) – fraudulence without a safety issue – such as corn syrup diluted, coloured and flavoured to resemble maple syrup. Increasingly, as regulators become disgusted and enraged with EMA, Class 3’s are being treated as Class 1’s.

High tides and soaring totals

 Newsweek® has reported that the FDA implemented 506 food recalls in 2023, a 20% increase over 2022 and a five-year high, the leading cause of which was undeclared food allergens. In 2023, the USDA’s food recalls rose 42% year-over-year, with a 133% increase in volume of units. Overall product recalls in the USA increased 11% annually in 2023, prompting the story author, a finance reporter, to rightly conclude “[Companies need to remain vigilant about product safety](#).” The article reported the FDA’s website announcements (purposely plural) during March of a contaminated ice cream recall, and published a [map of the USA](#) with hyperlinks to state-specific information.

 The CFIA OFSR (Office of Food Safety and Recall) averages 164 recalls per year, with the most common cause being undeclared food allergens. On a per capita basis, the number is significantly higher than that of the USA (parity would be 56), yet an improvement from the 500 annual average reported in 2019, when the OFSR reported 10,000 recalls over [20 years of operation](#).

 The EU’s data is not directly comparable to that of other jurisdictions, as it reflects food recalls and “alerts”, such as shipments rejected at a port of entry. The [RASFF](#) – Rapid Alert System for Food and Feed – originated “in 1979 in response to an incident concerning oranges”. There were 3227 entries in 2023, with the cause summarized and details accessible. Many were a “border rejection notification” which include unacceptable levels of aflatoxin in peanuts, dried figs and pistachios, or an unacceptable level of listeria in smoked salmon.

Advances in food safety and technology

Food Fax 2024 will delve into this emerging field, including innovative food packaging designed to combat pathogens and other contaminants. Mark your calendars: on April 24th the FDA will host a [one-day virtual public webinar](#) on “Data and Technology in the New Era of Smarter Food Safety”. Be sure to sign up.