



FOOD SAFETY

Effective measures against food recalls

Alarming numbers: food warnings reach new heights



10 x

more food warnings than twelve years ago

More product safety for the food industry through inspection systems

Recalls are increasingly becoming an economic risk for food producers

Glass shards in pesto or metal shavings in pre-packaged salad: the global focus on food safety has gained increased in recent years. In Germany, the number of food recalls has increased 10 times over in the past decade. According to the Federal Office for Consumer Protection and Food Safety, the number of published warnings about food increased from 24 to 267 cases [1] between 2011 and 2023 – an alarming rise of over 1000 percent. The most common cause of

recalls, which are often associated with high costs and a loss of reputation for the manufacturers, are pathogens, which account for 33% of the cases. Foreign objects in food were responsible for about 15% of all recalls in 2023 [2]. The main categories affected, besides herbs & spices, meat, and dairy products, saw a significant increase compared to 2022. These included convenience food products, which were recalled multiple times. Furthermore, in 2019, approximately

500,000 establishments were subjected to official food inspections, nearly half of the registered businesses in Germany. About 65,000 violations were found, resulting in a complaint rate of 12.6%. Particularly low was the rate for fruits and vegetables, with only 6.7% of products being criticized. In contrast, food for special diets, such as baby food, had a significantly higher complaint rate of 25.4% [3].

1 | Federal Office of Consumer Protection and Food Safety. (April 2, 2024). Number of published food warnings issued by the Federal Office of Consumer Protection and Food Safety (BVL) in Germany in the years from 2011 to 2024 [Graph]. In Statista. Accessed on September 26, 2024, at <https://de.statista.com/statistik/daten/studie/616934/umfrage/warnungen-vor-lebensmitteln-in-Deutschland/>

2 | <https://www.tagesschau.de/wirtschaft/lebensmittelwarnungen-app-handly-100.html>

3 | Federal Office of Consumer Protection and Food Safety (Germany)Quelle: Bundesamt für Verbraucherschutz und Lebensmittelsicherheit

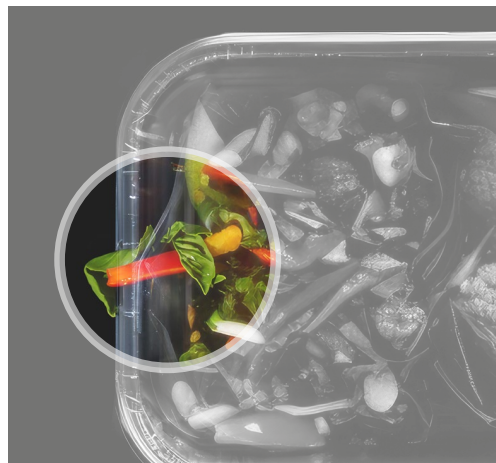
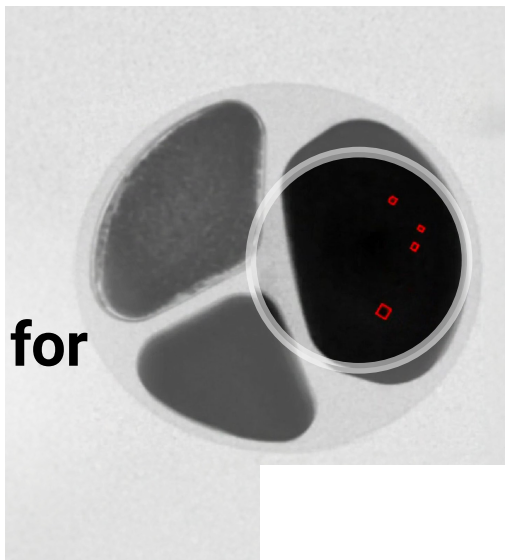
In the US, foreign objects such as metal and plastic were also among the most common causes of food recalls in 2022 [4] — alongside undeclared allergens like milk, nuts, and eggs, as well as listeria and salmonella in food. Affected products ranged from peanut butter to fruits, cookies, and baby food, as well as hundreds of thousands of pounds of meat products.

rapidly growing convenience food segment. This includes ready-made salads, sandwiches, sushi, and other ready-to-eat meals. In this sector, which is characterized by fast processing times and high demand, precise and reliable control mechanisms are crucial to ensure both the quality of the products and consumer safety.

Food safety is also a central aspect of food production in the

CONSEQUENCES

Existential risks for food producers



A breakdown of direct and indirect recall costs includes:

Production shutdown

Notification to authorities, the supply chain, and consumers

Product retrieval, including logistics for storage and destruction

Investigation and correction of the cause

Penalties and compensation costs for retailers

Damage to reputation and subsequent sales losses

The increasing recalls and safety warnings pose significant risks for companies that process and market food. A single incident can not only shake consumer trust but also lead to existential economic consequences. Additionally, more and more countries are focusing on increased transparency in food warnings, centralizing and digitally distributing them, so that recalls are no longer exclusively communicated via notices at supermarket check-out counters [5].

The financial risks of recalls for businesses are shown by figures from the US: according to the U.S. Food & Drug Administration [6], there were 2,066 food recalls in 2023. A report from the Grocery Manufacturers Association estimated the cost of a food recall at \$30 million, with a quarter of survey participants reporting even higher costs. 81% of respondents considered the financial risk of a recall to be “significant to catastrophic” for their business.

4 | U.S. PIRG Education Fund (April 21, 2023). Food for Thought: An analysis of food recalls for 2022. Accessed on September 26, 2023 at <https://pirg.org/edfund/resources/food-for-thought-an-analysis-of-food-recalls-for-2022/>

5 | https://www.chip.de/news/Lebensmittelwarnungen-direkt-aufs-Smartphone-Besserer-Schutz-fuer-Verbraucher_185328561.html#:~:text=Das%20Portal%2022lebensmittelwarnung.de%22%20existiert%20seit%202011%20und%20ver%C3%B6ffentlich,310%20im%20Jahr%202023%20gestiegen.

6 | <https://www.accessdata.fda.gov/scripts/ires/index.cfm>

SOLUTIONS

Traceability

- ✓ Recall management
- ✓ Consumer trust
- ✓ Supply chain transparency

Traceability as a key measure to mitigate risks

In this context, traceability plays a crucial role. Without an effective traceability system, entire production batches often have to be recalled, significantly increasing costs and reputational damage. A robust traceability system, on the other hand, allows affected batches to be identified precisely and recalled selectively. This not only reduces financial burdens but also protects consumer trust in the brand.

Fred Köhler, Business Unit Leader Industry at Bizerba, explains: "Recalls are particularly critical for companies with highly scaled production, such as in the powdered milk industry. The economic consequences in such cases are often severe. Comprehensive traceability is therefore essential to effectively managing such risks."

Inspection systems for food production enhance safety

These developments in food recalls underscore the need for robust inspection and control systems globally. By using modern technologies such as high-precision weighing systems and comprehensive control solutions, potential hazards can be detected and corrected early on. These measures not only help ensure product quality but also protect the image and economic stability of businesses.





These measures include, among others:

01

Checkweighers

Checkweighers play a crucial role in food production by verifying the weight of products before and during the packaging process. They measure weights in real time and compare them with set target values, ensuring immediate detection of over- or underweight products. If discrepancies are found, the devices can automatically take corrective actions such as sorting out defective products, preventing costly waste and recalls.

03

Labeling & software solutions

Labeling systems, in conjunction with data management software, contribute significantly to traceability. The combination of these systems allows for the display of 2D codes like GS1 Digital Links on labels. This ensures that all relevant data about individual product components can be traced across the entire supply chain, simplifying the handling of recalls – especially for products like convenience foods, which consist of many different ingredients.

02

Foreign object detection

Advanced technologies such as metal detectors or X-ray systems for foreign object inspection can be used to detect metallic and non-metallic foreign bodies in food. Additionally, X-rays allow for a completeness check, ensuring that only products meeting all quality criteria leave the production line. These inspection measures help manufacturing companies identify foreign bodies and correct quality deviations early on, with reliable detection occurring depending on the product and packaging properties and the size of the foreign object.

04

Visual inspection

Visual inspection systems play a crucial role in optical quality control in food production by automatically checking the completeness, shape and appearance of products. They detect deviations such as damaged packaging, faulty labeling, improper seals and contamination of the seal, enabling early identification of potential issues.

Bizerba offers a wide range of state-of-the-art solutions for the food industry. These technologies enable businesses to not only make their

processes more efficient but also significantly increase the safety and quality of their products, reducing the risk of recalls and safety alerts.

This in turn ensures consumer protection and strengthens trust in the brand while promoting economic stability.

Know-how and service worldwide on site

150 years ago, Bizerba was founded in Balingen, in the Swabian region of Germany. Today, it is a global corporation with customers in 120 countries and a worldwide service and distribution network.

Bizerba: Everything from a single source

01
Hardware

02
Software

03
Labels

04
Service

05
Financing



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SECURITY**

Contact our solution specialists

Schedule a non-binding appointment or request further information.

Bizerba USA Inc.

1804 Fashion Court
Joppa, MD 21085

+1 (732) 565-6000
us.info@bizerba.com

bizerba.com

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