



POSTER

RAPID ALERT SYSTEM FOR FOOD AND FEED (RASFF): ANALYSIS OF NOTIFICATIONS IN THE EMILIA-ROMAGNA REGION IN THE 2023-2026 PERIOD

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Background. The European Union (EU) ensures high food safety standards through Regulation (EC) No 178/2002 and Regulation (EU) 2017/625. Within this framework, the Rapid Alert System for Food and Feed (RASFF) guarantees rapid communication among Competent Authorities (CAs) to effectively manage risks along the supply chain. The Emilia-Romagna Region has implemented specific guidelines for the operational management of alerts concerning food, feed, and food contact materials (FCMs). This study analyzes the notifications managed by the regional alert system over the 2023-2026 period to outline the emerging issues and evaluate the associations between product categories and identified hazards to support risk-based control planning.

Methods. A retrospective analysis was performed on the notifications recorded and managed by the regional alert system. Data were processed to compute absolute and relative frequencies. The analyzed variables included product sector, notification classification, basis for control, originating notifying authority, and product category. Percentage distributions of specific hazard types within the most represented categories were cross-tabulated to identify key product-hazard combinations.

Results. Out of 844 managed notifications, "Food" accounted for the vast majority of notifications with 91.6% (n = 773), followed by "Feed" (4.7%; n = 40) and "FCMs" (3.7%; n = 31). Within the dataset, 47.5% of cases (n = 401) were classified as "alert notifications", with "information notifications for attention" (28.2%; n = 238), "for follow up" (22.5%; n = 190), "border rejections" (1.3%; n = 11) and "news" (0.5%; n = 4) comprising the remainder. The primary reason for system activation was "official controls on

the market" (51.8%; n = 437), followed by "company own-checks" (26.4%; n = 223), "consumer complaints" (9.7%; n = 82), "surveillance program" (5.1%; n = 43) and "food poisoning" (3.1%; n = 26). Notifications were mainly triggered by other Italian Regions (55.5%; n = 468) and EU Member States (28.7%; n = 242), while the Emilia-Romagna Region directly activated 13.2% of the total alerts (n = 111). The most prevalent product categories were "Fish and products thereof" (18.1%; n = 153), "Poultry" (11%; n = 93) and "Fruits and vegetables" (9%; n = 76). "Poultry" was heavily dominated by Salmonella spp. (93.5%; n = 87), while "Fruits and vegetables" were characterized by other hazards, including pesticide residues (32.9%; n = 25). "Meat products" were primarily associated with Salmonella spp. (40%; n = 30) and Listeria monocytogenes (16%; n = 12), whereas "Fish and products thereof" were primarily characterized by non-pathogenic Escherichia coli (24.2%; n = 37), heavy metals (16.3%; n = 25), Salmonella spp. (9.8%; n = 15), enteric viruses (9.2%; n = 14) and histamine (8.5%; n = 13). The Chi-square test confirmed a significant association between food matrixes and hazards ($\chi^2 = 365.88$; simulated p < 0.001). FCMs were notified for migration issues in 52.8% of cases (n = 19) and 100% of non-compliances in eggs were related to Salmonella spp. (n = 9).

Conclusions. The obtained results provide an updated and comprehensive overview of food safety dynamics at the local level. The RASFF proves to be a valuable data source for monitoring historical trends, evaluating emerging risks, and implementing preventive strategies throughout the food chain. Furthermore, leveraging these analyses enables CAs to plan official controls more efficiently, establishing priorities and frequencies based on the actual level of risk.