



# THE FRUIT AND VEGETABLE INDUSTRY SERIES



FRUIT AND VEGETABLES SCHEME



## OECD-COLEAD Fruit and Vegetables Industry Series Session n°6 – Food Fraud Prevention, Monitoring, and Controls

Tuesday 19 March 2024 – 09:00-10:30 UTC / 10:00-11:30 CET

[Online \(Zoom\)](#)

*English-French interpretation available*

### 1. Context

Agri-food supply chains are more and more complex, involving multiple stages, locations, environments and actors making them more vulnerable to food fraud practices. Food fraud can compromise most of the United Nations (UN) Sustainable Development Goals (SDGs) by affecting the availability, quality, and safety of food, as well as the income, livelihoods, and undermining consumer trust in official controls, governments and the industry. In addition to the financial losses, food fraud presents risks to human, animal or plant health, and the environment. Fraudulent practices can happen at any stage of production, processing and trade and can destroy a brand or an industry victim of fraud.<sup>1</sup> To protect consumers, food businesses, and the integrity of the global agri-food chain, an efficient response mechanism to prevent and fight against food fraud practices is a priority.<sup>2</sup>

#### 1.1. Definitions of food fraud

Although there is no legal definition, food fraud is commonly described as any suspected intentional action committed when a food business operator intentionally decides to deceive customers about the quality and/or content of the food they are purchasing to gain an undue advantage, usually economic, for themselves. Food fraud is a serious issue that affects the safety, quality, and authenticity of food products.

At the European Union (EU) level, food fraud is defined as "a non-compliance concerning any suspected intentional action by businesses or individuals, for the purpose of deceiving purchasers and gaining undue advantage therefrom, in violation of the rules referred to in Article 1(2) of Regulation (EU) 2017/625".<sup>3</sup> Article 2(21) of Regulation (EU) 2019/1715<sup>4</sup> provides a definition of "fraud notification", for the purpose of cooperation between Member States, exchange of information, and enforcement action.

<sup>1</sup> EC. [Agri-Food fraud: What does it mean?](#) EIT. 2011. [Food fraud: can we trust the authenticity of our food?](#)

<sup>2</sup> Yiannaka, A. [Food Fraud: a persistent problem that demands a comprehensive approach](#). J Consum Prot Food Saf 18, 359–360 (2023).

<sup>3</sup> EC. DG Food Safety. [Agri-Food fraud: What does it mean?](#)

<sup>4</sup> [Commission Implementing Regulation \(EU\) 2019/1715 of 30 September 2019 laying down rules for the functioning of the information management system for official controls and its system components \(the IMSOC Regulation\)](#).



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The criteria below<sup>5</sup> are used by the European Union Member States to report frauds:

- **Customer deception** of the customers/consumers (i.e., altered colouring or altered labels, hide the true quality or the nature of a product and may pose a public health risk (i.e., undeclared allergens).
- **Economic gain**: the fraudulent act brings some form of direct or indirect economic advantage for the perpetrator.
- **Intention**: when several factors give strong grounds to show that certain non-compliances are not accidental, such as the intentional substitution of a high-quality ingredient with a lower quality one, rather than an accidental contamination due to the production process.
- **Violation of EU rules**: violation of one or more rules codified in the EU agri-food chain legislation as referred to in Article 1(2) of Regulation (EU) 2017/625.

## 1.2. Impact and scope of food fraud

Food fraud can have negative impacts on consumers, businesses, and society, such as:<sup>6</sup>

- **Health risks**: consuming food that is contaminated, spoiled, or allergenic.
- **Economic losses**: paying more for food that is of lower quality or quantity, or losing market share or reputation due to fraud.
- **Environmental and social damages**: harming the environment or violating human rights due to unsustainable or unethical practices, such as deforestation, animal welfare, or child labour.
- **Reputation**: undermining business and trading partner confidence in the sectors affected and in the official control systems.

In 2019, it was estimated that, at global level, food fraud could have an impact of 30 billion euros per year.<sup>7</sup> Food fraud can range from a single trader to industrial scale business-to-business crime and may be linked to other type of crimes involving food, feed, animals and plants (e.g. illegal fishing, smuggling, theft, money laundering, tax evasion, counterfeiting).<sup>8</sup>

**Factors contributing to fraud in the agri-food chain** include increasing benefit margins; pressure to maintain supply during shortages; inadequate governance and absence of sanctions; tax evasion; market competition; demand higher than regular production; lack of access to new technology or markets; restrictions and administrative hurdles. In some countries, conflict and security challenges, weak economic growth, high population growth, and bureaucratic corruption are aggravating factors.<sup>9</sup>

## 1.3. Categories of food fraud

**Adulteration and product tampering**: adding or replacing ingredients with cheaper or lower quality substances.

**Counterfeit**: Intellectual Property Right (IPR) infringement, including any aspects of the genuine agri-food product or packaging being replicated, for instance the process of copying the brand name, packaging concept or processing method for economic gain (i.e. Geographical Indications).<sup>10</sup>

<sup>5</sup> FAO. 2021. Food fraud – Intention, detection and management. Food safety technical toolkit for Asia and the Pacific No. 5. Bangkok. <https://www.fao.org/3/cb2863en/cb2863en.pdf>.

EC. [The EU Food Fraud Network and the Administrative Assistance and Cooperation System](#). 2019 Annual Report.

<sup>6</sup> EIT. 2011. [Food fraud: can we trust the authenticity of our food?](#)

<sup>7</sup> Winkler, B., Maquet, A., Reeves-Way, E., Siegener, E., Cassidy, T., Valinhas De Oliveira, T., Verluyten, J., Jelic, M. and Muznik, A., [Fighting fraudulent and deceptive practices in the agri-food chain](#), EUR 31436 EN, Publications Office of the European Union, Luxembourg, 2023, ISBN 978-92-68-00336-7, doi:10.2760/31366, JRC131525.

<sup>8</sup> Ibid

<sup>9</sup> [How Worried Are You about Food Fraud? A Preliminary Multi-Country Study among Consumers in Selected Sub-Saharan African Countries](#). Soon-Sinclair, J.M.; Imathiu, S.; Obadina, A.O.; Dongho Dongmo, F.F.; Kamgain, A.D.T.; Moholisa, E.; Saba, C.K.S.; Walekhwa, A.W.; Hunga, H.; Kussaga, J. How Worried Are You about Food Fraud? A Preliminary Multi-Country Study among Consumers in Selected Sub-Saharan African Countries. *Foods* 2023, 12, 3627.

<sup>10</sup> EC. [The EU Food Fraud Network and the Administrative Assistance and Cooperation System](#). 2019 Annual Report.

**Document forgery:** The process of creating, adapting, altering, misrepresenting or imitating documents such as certificates, passports, analytical test reports, declarations of compliance, etc.

**Grey market activities:** Production, theft, and diversion involving unauthorised sales channels for agri-food products (traceability issues).

**Misdescription/mislabelling/misbranding:** explicit false claims or distorting the information on the label/packaging (i.e., expiry/production date; nutrition/health claims; geographical claims; quality terms; quantity, claiming organic certification without meeting the standards).<sup>11</sup>

For fresh products (i.e. fruit and vegetables), since most fresh produce is visually identifiable, partial dilution or replacement with less expensive substances is usually not possible. Fraud is commonly related to labelling claims about production practices (i.e. organic), production location or brand names (i.e. Geographical Indications). In some parts of the world, harmful or toxic substances may be used to speed or enhance ripening or to make fruit look more visually appealing. Given the global widespread use of pesticides – a market projected to reach US\$ 90 billion by 2032 —it is not surprising that counterfeit and illegally-traded versions are finding their way into markets worldwide.<sup>12</sup>

## 2. Prevention, monitoring and control of food fraud

Food fraud prevention, monitoring, and controls are the actions and measures taken to prevent, detect, and respond to food fraud. Some of the main aspects of food fraud prevention, monitoring, and controls are<sup>13</sup>:

- **Risk assessment:** identifying and assessing the potential vulnerabilities and hazards of food fraud along the supply chain, considering product characteristics, sourcing regions, market conditions, and fraud history.<sup>14</sup>
- **Risk mitigation:** implementing and enforcing effective policies, procedures, and standards to reduce the likelihood and impact of food fraud. There should be clear and consistent rules and standards for food safety and quality, as well as penalties for food fraud offenders. The authorities should also have the capacity and resources to monitor and inspect the food supply chain and take action if food fraud is detected or reported.
- **Risk communication:** sharing and exchanging relevant information and data on food fraud risks, incidents, and best practices among stakeholders, such as authorities, industry, consumers, and research institutions. Competent authorities should address the fight against fraud, cooperate within and between competent authorities, law enforcement authorities, investigation units and stakeholders.
- **Detection methods:** applying and developing appropriate analytical techniques and tools to verify the identity, composition, and origin of food products (i.e., DNA testing, stable isotope analysis, or spectroscopy).

<sup>11</sup> Winkler, B., Maquet, A., Reeves-Way, E., Siegener, E., Cassidy, T., Valinhas De Oliveira, T., Verluyten, J., Jelic, M. and Muznik, A., [Fighting fraudulent and deceptive practices in the agri-food chain](#), EUR 31436 EN, Publications Office of the European Union, Luxembourg, 2023, ISBN 978-92-68-00336-7, doi:10.2760/31366, JRC131525. Annex 1 Fraud categories. The categories used in this annex are based on discussions with Member States' experts at the meetings of the EU Food Fraud Network.

<sup>12</sup> [Mapping the impact of illicit trade on the Sustainable Development Goals](#), TRACIT, 20129. Europol Operation Silver Axe III European law enforcement authorities made the largest ever seizure of illegal pesticides, some 360 tons, as the result of Operation SILVER AXE III. The annual operation coordinated by Europol with the support of the European Anti-Fraud Office (OLAF) targets the illegal trade of pesticides, including their sale and placing on the market (imports). The action saw inspections being carried out at major seaports, airports and land borders, production and repacking facilities in 27 countries. Cooperation with 43 private companies contributed to the success. According to the investigators, the seized pesticides could have been used to spray 48,000 square kilometres of agricultural land. Source: [Europol \(11 July 2018\)](#), Europol. [OPSON XI Report, 2021-2022](#).

<sup>13</sup> EC. Food Safety. [Fraud, monitoring and controls](#), Winkler, B., Maquet, A., Reeves-Way, E., Siegener, E., Cassidy, T., Valinhas De Oliveira, T., Verluyten, J., Jelic, M. and Muznik, A., [Fighting fraudulent and deceptive practices in the agri-food chain](#), EUR 31436 EN, Publications Office of the European Union, Luxembourg, 2023, ISBN 978-92-68-00336-7, doi:10.2760/31366, JRC131525.

<sup>14</sup> For a business, it is useful to be aware of reported frauds, external drivers (predictions of supply shortages, price volatility etc.) and internal drivers (cost pressures, supply stresses or systems weaknesses within your own business or supply chain).

- **Response actions:** taking prompt and proportionate actions to address food fraud incidents, such as recalling affected products, imposing sanctions, prosecuting offenders, or issuing alerts and warnings.

For Global GAP certification, growers are required to perform a food fraud vulnerability risk assessment “to identify potential vulnerability to food fraud (e.g. counterfeit plant protection products (PPPs) or propagation material, non-food grade packaging material)”.

### Key role of the private sector in addressing food fraud

Operators should keep themselves informed on food fraud prevention, conduct audits, train staff and exchange data and best practices with the industry players. They should know testing and analysis methodologies detecting adulterants, contaminants, and irregularities indicative of food fraud and do risk assessment of raw materials sourced, suppliers, intermediaries, and distributors, and verify their credentials, certifications, and quality standards.<sup>15</sup> Large industry can support this process by ensuring their suppliers are regularly audited. A culture of integrity and transparency should be promoted in the organisation, as well as equipping personnel with the needed knowledge and skills. E-commerce trade offers opportunities for operators, but also fraud risks (illicit products, falsified documents) not to underestimate.

## 3. Policy and collaborative initiatives to monitor and control food fraud

The Codex Alimentarius, or the "Food Code", is a joint initiative of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) that aims to protect the health of consumers and ensure fair practices in the food trade. The Codex Alimentarius covers a wide range of topics, such as food labelling, additives, contaminants, hygiene, nutrition, and biotechnology. It also provides guidance on how to prevent and combat food fraud, such as developing food authenticity methods, establishing traceability systems, and enhancing cooperation and information exchange.<sup>16</sup>

The EU Agri-Food Fraud Network (FFN)<sup>17</sup> is a network of contact points from the European Commission (EC) and each Member State, Switzerland, Norway, and Iceland, that exchange information and cooperate on cross-border fraud cases. In collaboration with the FFN, the EC Knowledge Centre for Food Fraud and Quality (KC-FFQ)<sup>18</sup> (established within the Joint Research Centre) provides its expertise in food science (i.e. developing methods to detect fraud or assess quality), and the European Anti-Fraud Office (OLAF)<sup>19</sup> and the European Union Agency for Law Enforcement Cooperation (Europol) carry out necessary investigations. The FFN is also engaged in the Operation OPSON – a joint Europol/Interpol initiative targeting trafficking in fake and substandard food and beverages, which is coordinated by Europol’s Intellectual Property Crime Coordinated Coalition and Interpol.<sup>20</sup>

<sup>15</sup> EC. DG Health and Food Safety. Overview report series of fact-finding studies to evaluate the suitability and effective implementation of national arrangements to fight fraud along the agri-food chain in accordance with Regulation (EU) 2017/625. 2023.

<sup>16</sup> [Home | CODEXALIMENTARIUS FAO-WHO](#)

<sup>17</sup> EU Agri-Food Fraud Network. [https://food.ec.europa.eu/safety/eu-agri-food-fraud-network\\_en](https://food.ec.europa.eu/safety/eu-agri-food-fraud-network_en).

<sup>18</sup> [Knowledge Centre for Food Fraud and Quality \(KC-FFQ\)](#).

<sup>19</sup> The European anti-fraud office (OLAF) works with customs authorities and market surveillance authorities within the EU and customs authorities from across the world, through individual investigations or joint customs operation.

<sup>20</sup> In 2019, as part of Operation OPSON VIII, the Commission led a targeted action on products that do not meet EU standards and that falsely claim to be organic and through Europol/Interpol requested the cooperation of several non-EU countries that were suspected of being the source of the fake organic produce. Eurojust also helped reveal fake organic food fraud by facilitating swiftly exchange data and evidence and ensured the successful outcome of the simultaneous operation. Interpol. Europol. [Operation OPSON IX. Analysis report](#). 2021.

An international investigation led by Interpol, Opson IX, involving 77 countries, led to the seizure of more than 40 million dollars’ worth of food and drink. Of particular interest was the observation of an increased amount of foods with forged expiry dates compared to pre-pandemic times.

See various OPSON Food Fraud report. [Food fraud: Joint Europol-INTERPOL Operation OPSON V Results Report Food fraud: Joint Europol-INTERPOL Operation OPSON V Results Report - OPSON X Report. 2020-2021](#).



The **Administrative Assistance and Cooperation network (AAC)**<sup>21</sup> created in 2015 and now part of the Rapid Alert System for Food and Feed (iRASFF) managed by the EC, is a dedicated IT tool that provides a platform for members of the FFN to exchange information on non-compliances and potential intentional violations of the EU agri-food chain legislation.

In the context of coordinated control plans, EC Directorate-General for Health and Food Safety works closely together with the KC-FFQ, as well as with OLAF. The Official Controls Regulation (OCR), which covers the whole agri-food chain provides a comprehensive toolbox for fighting fraud and sets the obligation for Member States to report all agri-food fraud suspicions of cross-border nature through AAC Assistance and Cooperation system for Food Fraud (AAC-FF).

## 4. Way forward

Because food fraud is intentional and those committing fraud try to avoid detection, combating food fraud requires a comprehensive approach, collaborations across multistakeholder and disciplines. Strategies and investments need to be done by the public and private sector in the development and adoption of food fraud detection technologies, including food testing laboratories, effective oversight and monitoring with improved traceability systems from farm to fork, training of staff to detect fraudulent goods, legislation targeting food fraud. A legal definition of food fraud is missing. Information campaigns sensitising consumers on food fraud are critical as a significant part of food fraud has serious health consequences for final consumers. The role of the private sector in improving its traceability and audit systems investing in food fraud prevention is also key. Improved data collection is required for developing evidence-based action plans to combat fraud at both national and intra-continent levels to safeguard consumer health.

New technologies are important in combatting food fraud as they enhance the transparency and traceability of the food supply chain (i.e., blockchain can help to track the movement and condition of food products along the supply chain), improve the detection and verification of food authenticity and origin (i.e., spectroscopy and DNA testing), create new products, services such as food testing, certification, or e-commerce, that can increase the value and competitiveness of the food sector. Investments in new technologies by public authorities, as well as the food industry need to increase to prevent food fraud and transparency of the food chain.

## 5. Promoting increased knowledge about the fruit and vegetable industry

In the context of the UN 2021 International Year of Fruits and Vegetables, the COLEAD<sup>22</sup> through its FFM SPS and FFM Plus programmes (funded by the EU and OACPS) and the OECD Fruit and Vegetables Scheme<sup>23</sup> of the Trade and Agriculture Directorate launched an online series highlighting the significance of the fruit and vegetable sector and its various dimensions. **The main objectives of the series are:**

- Sharing knowledge of markets and operators working in local and export fruit and vegetable markets
- Understanding the fruit and vegetable sector contribution to sustainable production and consumption
- Promoting fruit and vegetable contribution to healthy and nutritious diets
- Showcasing successes and innovations of private sector operators across the European Union and Southern countries and lessons learned.

<sup>21</sup> EC. Food Safety. [Administrative Assistance and Cooperation Network \(AAC\)](#).

<sup>22</sup> As a private sector (not-for-profit) organisation, COLEAD's purpose is to support activities that aim to increase the agricultural sector's contribution to achieving the Sustainable Development Goals. <https://www.colead.link/>.

<sup>23</sup> OECD Fruit and Vegetables Scheme promotes international trade through the harmonisation of implementation and interpretation of marketing standards. <https://www.oecd.org/agriculture/fruit-vegetables/>.



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English-French interpretation available

### PROGRAMME

**Moderator:** *Isolina Boto, Head of Networks and Alliances, COLEAD*

#### 10:00-10:10 Welcome and introduction

- *José Brambila-Macias, Programme Manager, Trade and Agriculture Directorate, Agricultural Codes and Schemes, OECD*
- *Jeremy Knops, Délégué Général, COLEAD*

#### 10:10-10:40 Food fraud in the agrifood sector

This panel will share information on trends, policies and collaboration to fight food fraud.

- *Eric Marin, Deputy Head of Unit G5 - Alerts, Traceability and Committees - DG SANTE, European Commission; Coordinator of the EU Food Fraud Network*
- *Dr. Salvatore Alberino, Inspector, Italian Directorate-General for Preventing and Combating Agri-Food Fraud*

#### 10:40-11:20 Views from operators:

This panel will feature experiences from operators implementing innovations to address food fraud.

- *Francis B. Dossou Sognon, Founder, Agrosfer, Benin*

#### Q&A session

#### 11:20-11:30 Conclusion and way forward



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