

Civil Dialogue Group Quality and Promotion

Food fraud – information based on the monthly reporting by
the Joint Research Centre

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Knowledge Centre
for Food Fraud
and Quality





JRC Mission

As the science and knowledge service of the Commission our mission is to support EU policies with **independent evidence** throughout the whole policy cycle.

- **Independent** of private, commercial or national interests
- **Policy neutral**: has no policy agenda of its own
- Works for more than **20 EC policy departments**

JRC role: facts and figures



Policy neutral: has no policy agenda of its own



More than **50** large scale research facilities
More than **110** online databases



About **2 800** staff, nearly **70 %** of whom are **scientific/technical staff**

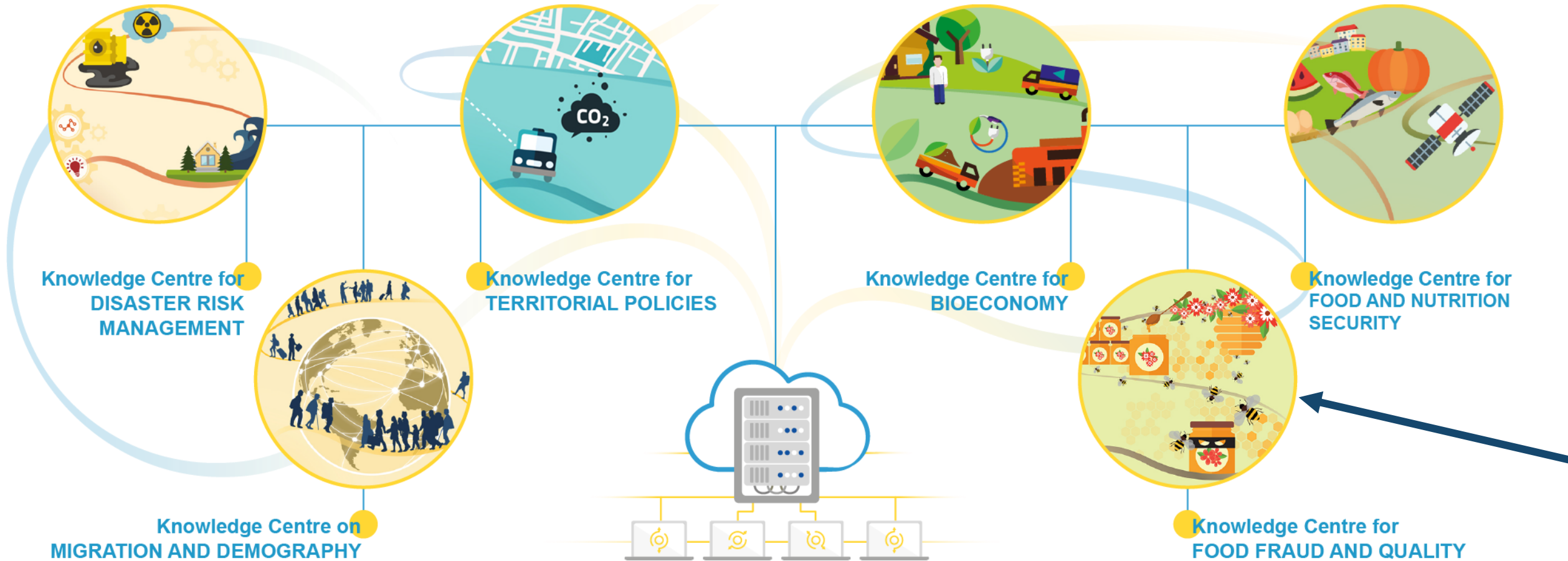


83 % of core **research staff with PhDs**



Over **1 400** scientific publications per year

Knowledge Centres



Food Fraud & Quality - definition

*“**Food fraud** constitutes a violation of EU food law and is done intentionally for financial gains through consumer deception, while **dual food quality** concerns food marketed under the same brand and packaging across several EU Member States, but with unexplained differences in composition.”*

- Examples:

- ❖ Substitution (e.g. horse meat scandal, 2013)
- ❖ Mislabelling (e.g. species of fish)
- ❖ Quality (e.g. provenance/ origin, dilution and adulteration of olive oil)

- Consequences:

- ❖ Economy: costs estimated to be 8-12 billion €/ year
- ❖ Trust: reduced confidence by consumers and loss of reputation by honest operators
- ❖ Health: undeclared allergens



Violation of
EU rules



Deception of
customers



Economic
gain



Intention

Food risk continuum [WHO/FAO Codex Alimentarius Commission (CAC)]

Food Quality	Food Fraud [a]	Motivation: Economic Gain
Food Safety	Food Defense [b]	Harm including health, economic, terror
Unintentional	Intentional	<i>Spink, J., Embarek, P.B., Savelli, C.J. et al. Global perspectives on food fraud: results from a WHO survey of members of the International Food Safety Authorities Network (INFOSAN). npj Sci Food 3, 12 (2019) doi:10.1038/s41538-019-0044-x</i>

The Food Risk Matrix [3]: **a** Includes the subcategory of economically motivated adulteration or EMA. **b** Includes acts of terrorism

The Food Fraud Monthly Report

The **Food Fraud Monthly Report** is a collection of online news covering food fraud cases around the world.

So far, more than **1200 subscribers** receive our monthly newsletter manually compiled by our Knowledge Centre, based on **MediSys**.

6 Languages
English
French
Spanish
Italian
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KNOWLEDGE SERVICE

Knowledge Centre for Food Fraud and Quality

The Knowledge Centre for Food Fraud and Quality (KC-FFQ) produces and makes sense of scientific information to protect the authenticity and quality of food in the EU

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Full List of Food Fraud Summary Reports:

[Details about the selection criteria for including information in the JRC monthly food fraud summary report.](#)

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Year: 2021

[Food Fraud Summary Report - October 2021](#)



The Food Fraud Monthly Report



February 2021

Monthly Summary of Articles on Food Fraud and Adulteration

Retrieved mainly from the JRC tool Medisys (<http://medisys.newsbrief.eu>)



Food Fraud Cases

Hong Kong customs officers seized almost 400 kg of cherries (total value of 8500 euros) counterfeited with the logo of a famous Tasmanian brand.

[Securing Industry](#) 06/02/2021

[Food Safety Tech](#) 16/02/2021

According to a scientific paper, about 20% of fish products sold in Taiwan are mislabelled. Most affected species include: snapper, cod and surimi. Such substitutions may constitute a health risk for consumers as well.

[Food navigator – Asia](#) 09/02/2021

[Scientific Reports](#) 15/12/2020



China



Fruits and vegetables



Intellectual property
rights infringement



Taiwan



Fish and fish products



Replacement/ dilution/
addition/ removal
Mislabelling

The **product list** (34 groups) is aligned to the one used by RASFF, whereas the classification of **food fraud typologies** (6) follows the 2019 Annual Report of the EU Food Fraud Network, with the addition of '*counterfeit*' as a separate fraud type.

The Food Fraud Monthly Report

FOOD NOMENCLATURE

- Alcoholic beverages
- Bivalve molluscs and products thereof
- Cephalopods and products thereof
- Cereals and bakery products
- Cocoa and cocoa preparations, coffee and tea
- Confectionery
- Crustaceans and products thereof
- Dietetic foods, food supplements, fortified foods
- Eggs and egg products
- Fats and oils
- Fish and fish products
- Food additives and flavourings
- Food contact materials
- Fruits and vegetables
- Gastropods
- Herbs and spices
- Honey and royal jelly
- Ices and desserts
- Meat and meat products (other than poultry)
- Milk and milk products
- Natural mineral water
- Non-alcoholic beverages
- Nuts, nut products and seeds
- Other food products/ mixed
- Poultry meat and poultry meat products
- Prepared dishes and snacks
- Soups, broths, sauces and condiments
- Water for human consumption (other)
- Wine

FEED NOMENCLATURE

- Compound feeds
- Feed additives
- Feed materials
- Feed premixtures
- Pet food



The Food Fraud Monthly Report

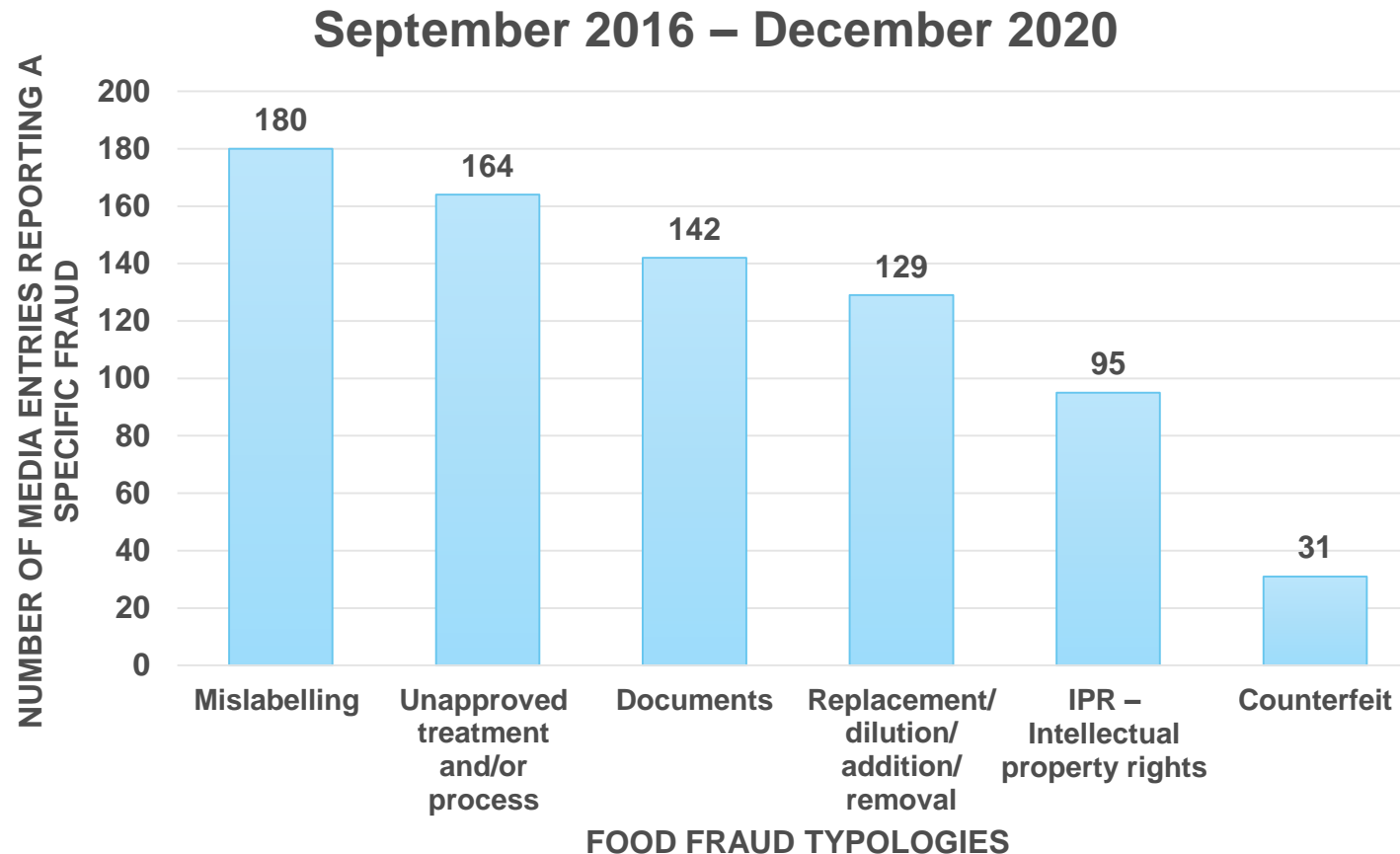
Food fraud typologies



- Documents: e.g. missing health certificates, no traceability documentation
- Unapproved treatment and/or process: altering food products by using illegal or non-authorised substances or processes (e.g. azo-dyes in spices, or melamine in milk powder)
- Replacement/ dilution/ addition/ removal: e.g. watering milk, or diluting extra-virgin olive oil
- Mislabelling: includes all label/package falsifications (e.g. regarding geographical/botanical origin, age, organic production, expiry date)
- IPR – Intellectual property rights: e.g. counterfeiting Geographical Indications (GIs) or famous brands/ companies logos
- Counterfeit: it aims at creating a product resembling an expensive one but containing very different ingredients. Examples include: addition of beta-carotene and/or chlorophyll to seed oils to simulate olive oil; fake rum made by ethanol with added caramel and flavour; sugar syrup with added caramel simulating honey.

A 4-year analysis

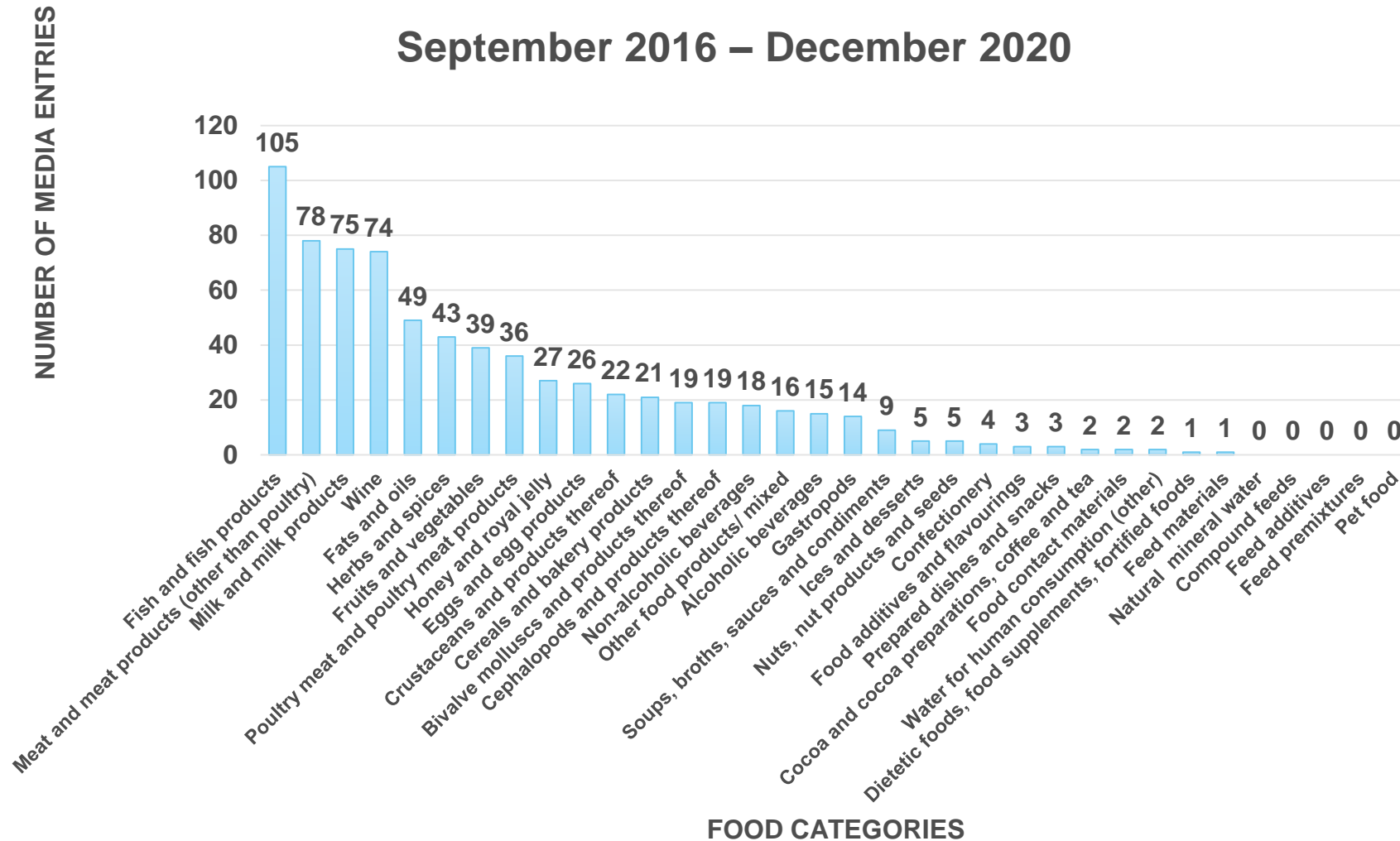
561 food fraud cases registered in the Food Fraud Monthly Reports between September 2016 and December 2020. Each media news can relate to more food categories and food fraud typologies.



The most widely occurring food fraud cases were:

1. Mislabelling [32%]
2. Unapproved treatment and/or process [29%]
3. Documents [25%]
4. Replacement/ dilution/ addition/ removal [23%]
5. IPR – Intellectual property rights [17%]
6. Counterfeit [5.5%]

A 4-year analysis



The most reported commodities:

1. Seafood
2. Wine and alcoholic beverages
3. Meat products
4. Milk and dairy
5. Fats and oils
6. Herbs and spices
7. Honey

A 4-year analysis

Seafood – 117 combined cases

RASFF categories:

- Bivalve molluscs and products thereof
- Cephalopods and products thereof
- Crustaceans and products thereof
- Fish and fish products
- Gastropods

Impact of frauds

- Documents (53%)
- Replacement/ dilution/ addition/ removal (21%)
- Mislabelling (32%)

The combined 117 cases related to adulterated seafood products (i.e. fishes, crustaceans, bivalve molluscs, cephalopods and gastropods) are the commodities most frequently reported by the media. They are often landed and sold illegally to consumers and restaurants, thus lacking traceability documentation (53% of fraud cases), especially in the Mediterranean. Replacing an expensive species with a cheaper one is also quite common, as consumers have severe difficulties to recognize substitution (21%) once the animal is disassembled, thus converging in the wider category of mislabelling cases (32%).



A 4-year analysis

Wine and alcoholic beverages – 86 combined cases

RASFF categories:

- Alcoholic beverages
- Wine

Impact of frauds

- IPR – Intellectual property rights (54%)
- Unapproved treatment and/or process (30%)

When adulterating wine or alcoholic beverages (86 combined cases), criminals often counterfeit GIs or brands (classified as IPR; 54% of combined cases), especially in Southern Europe. Cheap wines are bottled, mislabelled and sold as the expensive originals. It is worth noticing that the price range in the wine sector is very wide and consumers may not necessarily be able to judge the quality simply from a sip. Another fraud type affecting the sector is the unapproved treatment or processes (30% of combined cases) potentially involving dangerous substances, e.g. rice wine adulterated with methanol in Asian countries.



A 4-year analysis

Meat – 83 cases

RASFF categories:

- Meat and meat products (other than poultry)
- Poultry meat and poultry meat products

Impact of frauds

- Mislabelling (45%)
- Documents (31%)

Meat products (i.e. beef, pork, poultry, horses, etc...) are the third most adulterated commodities (83 cases out of 561). Mislabelling is the most common (45%) food fraud affecting this sector (e.g. origin, organic, breeds, cuts) followed by lack of traceability documentation (31%) as meat products may be often produced illegally and sold on the black market.



A 4-year analysis

Milk and dairy – 75 cases

RASFF category:

- Milk and milk products

Impact of frauds

- Unapproved treatment and/or process (51%)
- Replacement/ dilution/ addition/ removal (36%)

Milk and dairy (fourth position, 75 cases) are usually subject to unapproved treatments (51% cases, often adulterated with dangerous substances) and diluted with water (36%). Especially the Asian countries have serious issues with milk adulteration affecting their citizens' health.



A 4-year analysis

Oils – 49 cases

For the category fats and oils (fifth position with 49 cases), low quality olive oils are often mislabelled (46% of cases) as the more expensive extra-virgin counterparts. Olive oils are also diluted (38% of cases) with cheaper oils from different botanical species (e.g. soybean).

RASFF category:

- Fats and oils

Impact of frauds

- Mislabelling (46%)
- Replacement/ dilution/
addition/ removal
(38%)



A 4-year analysis

Herbs and spices – 43 cases

RASFF category:

- Herbs and spices

Impact of frauds

- Replacement/ dilution/
addition/ removal (60%)
- Unapproved treatment and/or
process (72%)

Herbs and spices (43 cases, sixth position) are among the most expensive ingredients available to consumers and businesses. Especially in their countries of origin (mostly Asia), products are partially replaced by non-edible substitutes (60% cases) and/or treated with hazardous/illegal substances (e.g. dyes) in 72% of cases.



A 4-year analysis

Honey – 27 cases

RASFF category:

- Honey and royal jelly

Impact of frauds

- Replacement/ dilution/ addition/ removal (52%)
- Unapproved treatment and/or process (37%)

Similar problems affect the honey sector (27 cases, seventh position). Pure honey may be diluted (52% of cases) with sugar syrups from e.g. sugar cane, corn, beetroot, and rice. However, differently from herbs and spices, such sugars do not usually pose a threat to consumer health. Unapproved processes and treatments (37%) may instead be dangerous, especially when using artificial dyes not approved for human consumption.



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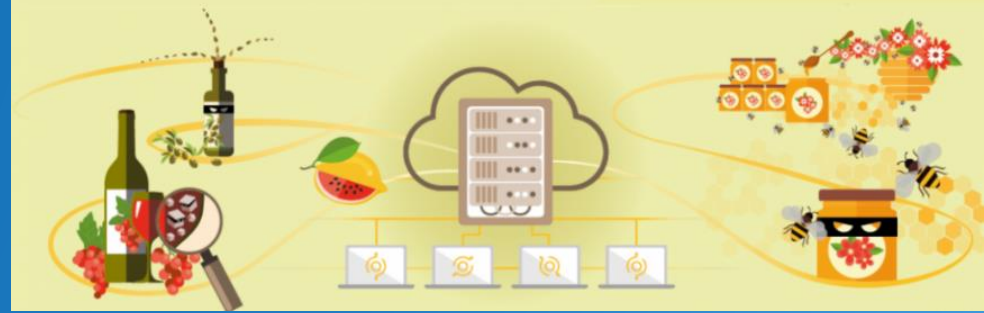


Eu Science Hub

Thank you

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Knowledge Centre for Food Fraud and Quality



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