

FOOD FRAUD & FOOD DEFENCE

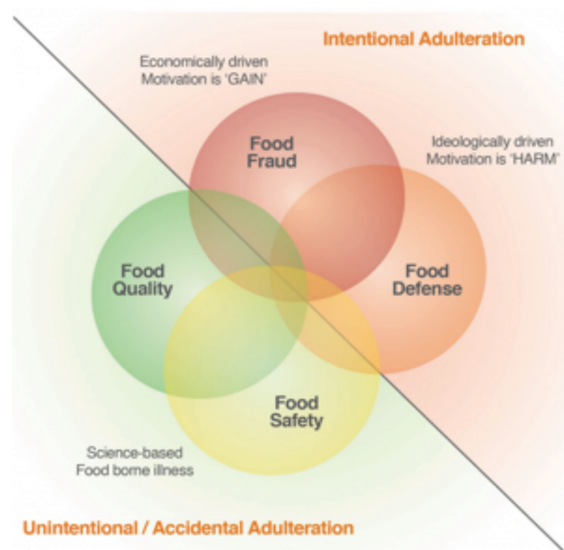


Food Fraud is the intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging; labelling, product information, false or misleading statements made about a product for economic gain that could impact customer health.

Food Defence is the protection of food products from intentional contamination or adulteration by biological, chemical, physical, or radiological agents introduced for the purpose of making food harmful for human consumption i.e. sabotage.

Food Safety is unintentional contamination of food that makes the food unsafe for human consumption.

Food Quality is the attributes that influence a product's value to customers.



In South Africa, according to the Consumer Protection Act, it is an offence to alter, falsify or remove a food label. Guilty parties may be imprisoned or fined R1 million or 10% of their annual turnover.

Types of Food Fraud

Below is an indication of how food fraud can be conducted - unfortunately criminals dream up new ways almost daily, but commonly used approaches are:

1. Substitution - The complete replacement of a food product or ingredient which can alternate product or ingredient, usually of a low value e.g. fish spices, olive oil.
2. Dilution - The partial replacement of a food product or ingredient with an alternate ingredient, usually of a lower value e.g. Dilution of honey with sugar/syrup, addition of horse meat to mincemeat, olive oil diluted with potentially toxic tea tree oil.
3. Concealment - The hiding of inferior food ingredients or products e.g. Poultry injected with hormones to mask disease, harmful food colouring applied to fresh fruit to cover defects.
4. Transshipment or Origin Masking - The misrepresentation of the geographic origin of the product, to avoid import duties.
5. Artificial/Unapproved Enhancement - The addition of unapproved/undeclared chemical additions to food products to enhance the quality attribute e.g. Sudan dyes in chilli powder, melamine added to enhance protein value.
6. Misleading - Misrepresentation with regards to harvesting, processing information or placing false claims on packaging for economic gain.
7. Counterfeiting - Copying a brand name, packaging concept recipes, processing methods etc. of food products for economic gain.
8. Intentional distribution of contaminated products e.g. selling products past their sell by date.
9. Grey market production/theft/diversion - sale of excess unreported product. Re-sale of stolen products through unapproved channels.

Types of foods at risk

Current top 10 products that are high risk:

1. Olive oil
2. Fish
3. Organic products
4. Milk
5. Grains
6. Honey and maple syrup
7. Tea and coffee
8. Spices
9. Wine
10. Specific fruit juices



Some examples of food fraud activities

Australia - Peanuts packaged and sold as pine nuts.

Indonesia - Formalin added to chicken intestines to preserve them.

Spain - In 1981 thousands of people became ill and hundreds died because of consuming fraudulent olive oil that was industrial grade rapeseed oil.

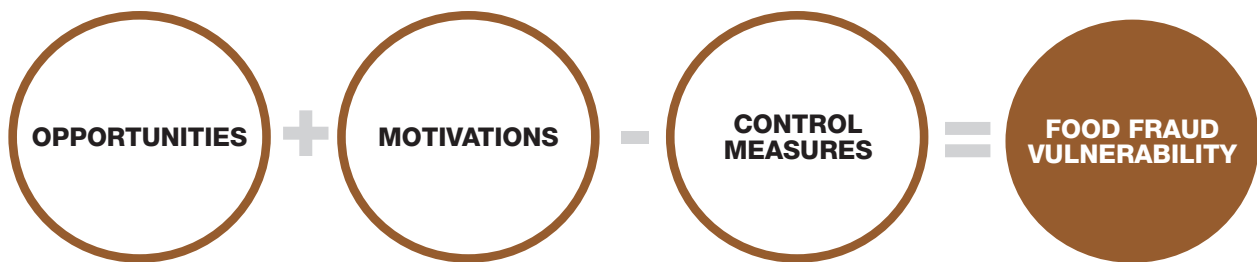
Operation OPSON - Sugar laced with fertiliser, copper sulphate painted olives and the selling of monkey meat were some of the goods seized by Interpol and Europol during Operation Opson. Over 20000 tonnes of food were seized during the operation, which took place between November 2015 and February 2016 in 57 different countries.

Some examples of food fraud activities:

South Africa - A disgruntled farmworker poured herbicide into a milk tank on the employer's farm which could have killed up to 2000 people.



Reasons for Food Fraud to take place



Opportunities are determined by:

1. The nature of a product or ingredient composition. Food Fraud is easier in liquids than in solids. Complex foods with multi ingredients offer greater fraud opportunities than simple, single ingredient foods.
2. The nature of a product or ingredient's qualities.
3. The nature of a product or ingredient's production process.
4. The nature of a product or ingredients in the supply chain – longer supply chains have a higher chance of product being tampered with than shorter supply chains.
5. The product's geographic origins – some countries have less stringent control than others.

Motivations could come in the form of:

1. Economic and Market factors
 - Special attributes that determine value
 - Financial strains
 - Level of competition
 - Supply/demand and pricing
 - Competition strategy
 - Economic health or conditions
2. Cultural or Behavioural factors
 - Personal gains or desperation
 - Unethical business culture
 - Corruption level
 - Victimization
 - Competitive strategy
 - Blackmail

Controls should include:

1. Information system's i.e.: traceability
2. Fraud monitoring and verification systems
3. Whistle blowing guidelines
4. Ethical codes of conduct
5. Legal framework and enforcement
6. Social control chain management
7. Contractual requirements
8. Employee integrity screening
9. Good supplier relationship

Food Packaging Fraud

Potential sources of fraud for the packaging manufacturer include:

- Fraudulent raw materials e.g. non-FSX board/pulp sourcing in place of FSC board.
- Downgrading or substituting product e.g. selling re-cycled board as virgin.
- Packaging which has been bought by non-genuine people e.g. buyer claiming to be a brand owner.

The potential hazards affecting brand owners that packaging manufacturers can help to mitigate include:

- Genuine packaging which is misappropriated for fraudulent products, where excess printing packaging has been illegally obtained and is essentially indistinguishable from genuine products.
- Fraudulent packaging which has been printed with genuine branding/artworks, where the brand logo has been obtained and is being used on fraudulent products.
- Misrepresentation of the retailed product i.e. fraudulent packaging and a fraudulent product retailed as a genuine product.

Packaging suppliers should submit a **Certificate of Analysis** on primary packaging to prove the components are food grade in the packaging. This needs to be shown for primary packaging only.

Primary packaging – the packaging that comes into direct contact with the food product.

