

FOOD CRIME

STRATEGIC ASSESSMENT 2020



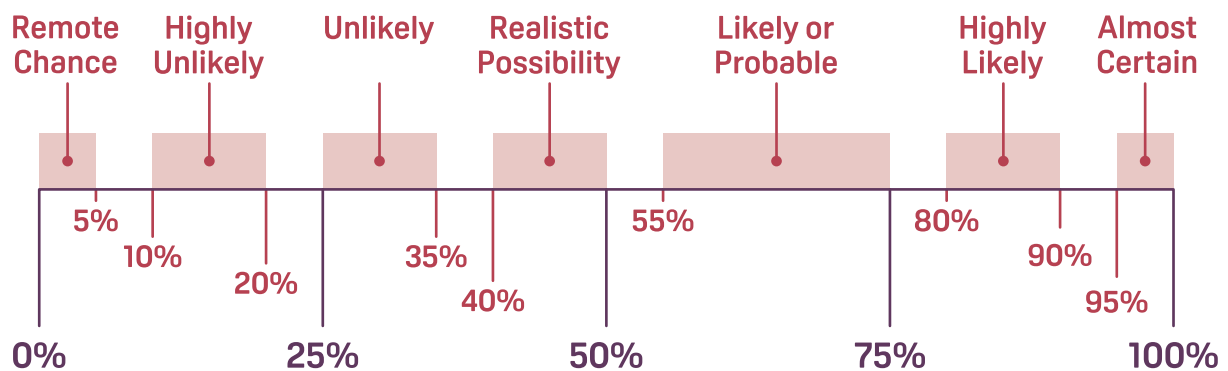
This document is produced by the National Food Crime Unit (NFCU) and the Scottish Food Crime and Incidents Unit (SFCIU).

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Probability and Uncertainty

Throughout the Food Crime Strategic Assessment, the ‘probability yardstick’ (as defined by the Professional Head of Intelligence Assessment (PHIA))¹ has been used to ensure consistency across the different threats and themes when assessing probability. This is a recognised approach used by UK government agencies. The following defines the probability ranges considered when such language is used:



¹ The Professional Head of Intelligence Assessment is based within the [Joint Intelligence Organisation](#) in the Cabinet Office.

Foreword

It is four years since the National Food Crime Unit and Scottish Food Crime and Incidents Unit (the Units) published our first, baseline assessment of the threat to the UK and its interests from food crime.

Since then, the Units have made significant progress towards maturing and expanding their operational activity, demonstrating our continued focus on this complex area of criminality.

This includes strong consideration of the value of food crime prevention; many of the vulnerabilities identified within the assessment will be matters around which structural or preventative solutions will be preferable to, or a necessary companion for, pursuing identified offenders through enforcement activity.

The UK is a safe food environment. However we do recognise the potential for changes within the food and drink sector to similarly alter the landscape of criminal opportunities in this area, and the assessment articulates some points of required vigilance. There is no evidence to suggest that the UK will be at more risk from food crime as a result of leaving the EU, however our new status does remain a factor for active consideration and situational awareness.

It is our clear reflection that tackling food crime needs to be a collective endeavour; our effectiveness in tackling the threat will be in direct proportion to the breadth and depth of the relationships which we establish and maintain with partners in the regulatory environment, law enforcement and also within the private and third sectors. We're pleased to be able to draw on intelligence, data and insight from these partners in this assessment.

There are areas of consistency between our baseline document and this latest assessment of the threat. These include areas of clear harm to consumers, such as the toxic chemical 2,4-dinitrophenol (DNP), and other persistent sectoral themes and product-specific vulnerabilities.

The other stable aspect of our findings is the marginal degree to which incursions into food crime offences specifically are noted with regards to more broadly active organised crime groups, despite evidence of the activity of such groups in and around the food and drink sector.

We use this document to drive our own work to tackle the food crime threat, and to support how we prioritise themes within this landscape and develop strategies to tackle them.

By making this publicly available, as we did with our 2016 assessment, we aim to broaden the dialogue around food crime, enhance visibility of the threat and, through this awareness, further mitigate associated risks and harms, with the support of our partners.

As our assessment concludes, a continued focus on the tangible threat which food crime poses to the UK, both domestically and from overseas, is fully justified.

Darren Davies
Head of Food Crime
National Food Crime Unit,
Food Standards Agency

Ron McNaughton
Head of Food Crime and Incidents
Scottish Food Crime and Incidents Unit,
Food Standards Scotland

Since this assessment was drafted, the Covid-19 pandemic has spread across the world, altering our daily lives. Few industries have been unaffected; the food sector is no exception.

In the UK and Europe, 'lockdown' and social-distancing caused the temporary closure of much of the food service, or 'out-of-home', sector^{1,2}. Consumers switched to shopping closer to home, or via online platforms and delivery services³. Uncertainty led to changes in consumer behaviour, with stockpiling of some products such as dry pasta and frozen vegetables further straining retail supply routes largely operating on a 'just-in-time' basis⁴. After the initial shock, the retail sector was largely able to adapt to cope with this increased demand and purchasing behaviour has since returned to normal levels⁵.

Food service suppliers lost outlets for product, and faced difficulties transferring to retail due to gaps in accreditation or assurance scheme membership, as well as means to produce retail size packs⁶. Lockdown measures led to temporary reductions, or cessation, of some audits and inspections, and the introduction of remote audits⁷ to ensure businesses are handling and producing safe and authentic food. This imbalance of supply, demand and controls appeared to provide the perfect environment for those seeking to commit food crime, but evidence of criminal exploitation has been limited.

The impacts of Covid-19 go beyond the food service sector. Online sales have been estimated to account for between 11.5 to 13% of the groceries market, almost double its share for the same period in 2019⁸. Sales of vegetable and recipe boxes have increased⁹ as have purchases via social media platforms for some groups¹⁰. We discuss some of the risks associated with the purchase of food online, including challenges around regulation and reduced traceability, later in the assessment.

¹ Lockdown in the UK was announced on 23rd March 2020. Restaurants, bars and cafes closed on 20th March.

² Around 80% of Accommodation And Food Service Activities Businesses were closed temporarily during the lockdown period until the beginning of May ([Business Impact of Covid-19 Survey \(BICS\)](#), Office for National Statistics (ONS), May 2020).

³ [Covid-19 Consumer Tracker Waves 1 and 2](#), Food Standards Agency (FSA), June 2020.

⁴ [COVID-19 and food supply](#), Environment, Food and Rural Affairs Committee (EFRA), July 2020.

⁵ [The National Food Strategy - Part One](#), July 2020.

⁶ [Maintaining Post-Covid-19 Capacity in Hospitality and Food Service Supply Chain Businesses - 'The Squeezed Middle'](#), Food and Drink Industry Roundtable, June 2020.

⁷ [Coronavirus: Red Tractor completes 6,300 remote assessments](#), FarmingUK, July 2020.

⁸ [The Power List 2020: online shopping, The Grocer, June 2020.](#)

⁹ [Veg Box sales increase by 111% in six weeks as a result of Covid-19](#), Food Foundation, May 2020.

¹⁰ [Covid-19 Consumer Tracker Waves 1 and 2](#), Food Standards Agency (FSA), June 2020.

The pandemic has also led to an increase in food insecurity for many¹¹, with the number of emergency food parcels distributed by food banks up 177% in May 2020 compared to May 2019.¹² An increase in demand for cheaper food products, as disposable income is reduced for many, is likely to create opportunities for food crime. The increasing importance of price in purchasing decisions, perhaps at the expense of quality and traceability, may incentivise unscrupulous traders to monetise low or no-value products by offering for sale products that are not fit for human consumption.

Since the easing of lockdown restrictions¹³, most of the food service sector has been able to reopen¹⁴. However, estimates suggest that it could take up to a year for the food service sector to return to pre-Covid levels¹⁵, even with government support for the sector¹⁶. Furthermore, fluctuations in commodity prices and large stocks of frozen products remain. This, in combination with the impact of the economic downturn and increasing unemployment¹⁷ on consumer purchasing patterns, is likely to produce an environment requiring continued awareness in some areas. We remain vigilant to the opportunities this environment could present to food criminals and recognise the need for the capacity and capability to take timely action.

At time of writing, a second wave of Covid-19 infections remains plausible. It is likely that the profile of disruption resulting from a second wave will differ from what we have seen and experienced previously due to seasonality factors and a changing social and economic landscape. The Units will continue to monitor the impact of any disruption on the food sector, and any potential links to food crime, as the situation evolves.

¹¹ [COVID-19 and food supply](#), Environment, Food and Rural Affairs Committee (EFRA), July 2020.

¹² [Independent Food Bank Emergency Food Parcel Distribution in the UK](#), Independent Food Aid Network (IFAN), July 2020.

¹³ Pubs, restaurants and accommodation sites have been able to reopen in England from 4th July 2020.

¹⁴ Nearly 80% of Accommodation And Food Service Activities Businesses were trading in the first two weeks of July 2020 ([Business Impact of Covid-19 Survey \(BICS\)](#), Office for National Statistics (ONS), May 2020).

¹⁵ [COVID-19 and food supply](#), Environment, Food and Rural Affairs Committee (EFRA), July 2020.

¹⁶ [Eat Out to Help Out launches today](#), Gov.UK, August 2020.

¹⁷ [Boris Johnson warns 'long, long way to go' for UK economy](#), BBC News, August 2020.

1. Executive Summary

- 1.1.1** This assessment looks to describe the threat to the UK and its interests, from food crime – serious fraud and related criminality within food supply chains.¹⁸
- 1.1.2** It is a complex sector of criminality, with many detailed technical aspects and a broad variety of methodologies at play within it. Consequently, maintaining a current understanding of offending and exploitable vulnerabilities can be challenging, and is a continuous process.
- 1.1.3** There are noted disparities between the current shape of the regulatory framework surrounding food and drink, and the broader landscape of how consumers and businesses source food and ingredients. These can make the task of ensuring that our food is safe, and is what it says it is, more challenging in some specific areas.
- 1.1.4** It is acknowledged that matters of fraud, in broader terms, do not always fall within the priority thresholds of other law enforcement bodies.
- 1.1.5** Within the food crime landscape, we note threats which stem from the actions of criminals working within the bounds of the United Kingdom, alongside others which arise from the illicit actions of producers, processors, suppliers or traders operating overseas. In other areas the distinction between UK-based offenders and those overseas is less important, for example with non-perishable products sold online and shipped directly to the consumer.
- 1.1.6** Our collective response needs to acknowledge this duality within the food crime threat, as well as the relevance of understanding international offending, to assure the safety and authenticity of the food we eat in the UK. The ways in which industry actors need to prepare for these two aspects of the threat landscape will also differ.
- 1.1.7** Another area of variance between domestic and overseas food crime is the degree to which the involvement of more traditional organised crime groups (moving into the sphere of food crime) is identified. While there are exceptions, for the most part UK food crime is committed by those with an existing role in the food and drink economy, and the access to markets which this provides is clearly an asset to those criminals.
- 1.1.8** This assessment does recognise that criminality takes place in and around the food sector without directly impacting on the safety or authenticity of food, but nonetheless resulting in harm to communities, to vulnerable people and to the UK's broader interests.








¹⁸ Serious crime is defined in the Police Act 1997 as crime resulting in substantial financial gain; conducted by group of people in pursuit of common purpose; or involving the use of violence.

- 1.1.9** The key themes within this threat assessment show some continuity with those identified previously by the Units, although we reflect that their prominence relative to one another is something which has changed, and which we better understand.
- 1.1.10** Most food crime relates to two broad classes of activity – either the repurposing of materials holding little or no value in the food chain as edible and marketable, or the sale of passable food, drink or feed as a product with greater volume or more desirable attributes.
- 1.1.11** When we consider the volume and variety of reporting, we note areas of clear focus, with the various stages of the meat and poultry sectors featuring prominently, alongside the shellfish industry. Within these sectors, however, there are a variety of stages of production and scales of enterprise, and the risk within these sectors, and others, will not be consistent across all phases and scales of supply.
- 1.1.12** In other areas, it is the severity of the harm resulting from the criminality which draws attention. The clearest example of this is the toxic chemical 2,4-dinitrophenol (DNP), which continues to cause fatalities of UK consumers following its sale as an illegal fat-burner. This demands a continued operational response from the Units as well as dialogue and co-ordination across HM Government to ensure that the most effective cross-government approach is taken to tackle the sale and supply of this substance for human consumption.
- 1.1.13** There are areas which we recognise as key features within the threat landscape, but around which we need to further finesse our understanding. These include the role of the internet and e-commerce in food crime (both now and in the future), and how far acts of food crime service otherwise unmet demands for products within specific communities.
- 1.1.14** As we look ahead to the end of the transition period we note the requirement for continued vigilance around the changes to the dynamics within the food and drink economy, and the shifts this may generate in the presence, absence and scale of the windows of opportunity for food criminals.
- 1.1.15** The Units will use this assessment to develop their priorities for the coming period, and to develop and deliver strategies to counter the most harmful threats, and to garner more intelligence where we have gaps in our coverage.
- 1.1.16** In tackling food crime there are three key lines of defence for ensuring that food is both safe and authentic. There are roles to play for food businesses, for the regulatory and law enforcement community and for consumers in shopping thoughtfully and raising concerns where they hold them.
- 1.1.17** We will ensure continued engagement with partners and remain committed to playing a role on the global stage, supporting the efforts we identify elsewhere in the world to mitigate the risks to consumers everywhere from those who fraudulently introduce unsafe or inauthentic food into our communities.






Threat assessment – highlights

The below commodities and themes are likely or highly likely to continue to manifest in food crime activity within the UK or affecting our consumers and businesses.

Product types

Commodity or theme	Assessment summary
 <p>Red meat</p>	<p>Several points of risks within the red meat sector ranging from livestock theft and the entry of meat from stolen or illicitly slaughtered animals into food chains, to adulteration, misrepresentation and animal identification issues. However, industry sampling data points to very low levels of anomalies within larger-scale supply chains with regards to speciation.</p>
 <p>Dangerous non-foods</p>	<p>Criminality relating to the marketing of substances unsafe for consumption (and linked to benefits such as fat-burning, or therapeutic properties for various conditions) is high harm, leading to in some cases to fatalities or serious ill health.</p>
 <p>Shellfish</p>	<p>Illegal harvesting continues around the UK coastline, followed by misrepresentation of product provenance to secure entry into the food chain. Various scales of harvesting and routes to market for illicit product are noted.</p>
 <p>Alcohol</p>	<p>The high harm but low prevalence issue of spirit drinks adulterated with industrial alcohols is noted, alongside less harmful but detrimental issues of counterfeit and substandard wines.</p>
 <p>Higher-risk products</p>	<p>Issues continue to be observed around foodstuffs commonly assessed as at high risk of food fraud owing to their nature or value. These include olive oil and some aspects of herbs and spices. Activity in these areas commonly involves criminality overseas rather than in UK.</p>
 <p>Fish</p>	<p>Concerns around fish focus on white fish speciation, although industry sampling identifies much lower levels of non-compliance than local authority checks; the application of illicit treatments to tuna is also of note although the scale of this threat in the UK is difficult to quantify.</p>
 <p>Eggs</p>	<p>Misrepresentation of date, quality and provenance can all prove financially lucrative and is an area where intelligence suggests continued vigilance is necessary.</p>

Cross cutting themes and techniques

Commodity or theme	Assessment summary
 Meeting demand from specific communities	<p>Techniques such as smuggling and document fraud, as well as domestic practices such as illegal slaughter, can facilitate the provision of food products popular with various communities based in the UK.</p>
 Misrepresentation of premium status or provenance	<p>Misuse of premium status labels, including designated origin and certified method of production, to profit at the expense of consumers and legitimate businesses, is noted. Affected areas include organic certified product, EU protected designations and country of origin claims.</p>
 Diversion of waste products	<p>The entry into the food chain of products which should not be there is at its most notable with animal by-products (ABP), but also includes products which have failed quality checks but enter secondary sales routes, despite having been intended for destruction.</p>
 E-commerce	<p>Routes via which the internet enables the provision of fraudulent and/or unsafe food to consumers (as well as items which may facilitate food crime) include social media sites, other online marketplaces, standalone trading sites and the dark web.</p>
 European Distribution Fraud	<p>A noted modus operandi which leaves suppliers out of pocket and raises concerns around the safe handling of foodstuffs acquired through this route, which often include meat and poultry. Further work is required to understand scale and nature of this issue.</p>

2. Introduction

2.1 Purpose and structure

- 2.1.1** The Food Crime Strategic Assessment 2020 (FCSA) outlines the current understanding of the scale and nature of the food crime threat to the UK, highlighting any gaps in that understanding. It will inform strategic priorities for our forward response to food crime.
- 2.1.2** This is a joint assessment produced by the Scottish Food Crime and Incidents Unit (SFCIU) within Food Standards Scotland (FSS), and the Food Standards Agency's National Food Crime Unit (NFCU), collectively referred to in this product as the Units.
- 2.1.3** This document is based on the definition of food crime as "serious fraud and related criminality within food supply chains". This also encompasses drink and animal feed.
- 2.1.4** This iteration of the FCSA continues to build upon our understanding of the nature and threat of food crime which the Units have developed since their inception in 2014-15. This assessment covers a principal reporting period from 1 September 2018 to 31 August 2019, although reporting from outside this period is used where it provides additional context.
- 2.1.5** The purpose of this document is to:
 - (1)** highlight themes and trends in food crime;
 - (2)** demonstrate changes in our understanding of the UK food crime threat;
 - (3)** enable the prioritisation of the most harmful issues within the UK's response to food crime;
 - (4)** outline the most significant gaps in our understanding of food crime.
- 2.1.6** The 2020 assessment will not form an exhaustive review of the response to food crime by regulators and law enforcement. This is an intelligence assessment, designed to provide a high-level understanding of the threat from food crime to the UK and its interests.
- 2.1.7** This assessment seeks to understand how particular techniques are applied across a range of products in the food, drink and feed sectors, and at different points in the supply chain, as opposed to within silos of product types, or sectors of the food and drink economy.
- 2.1.8** The current environmental factors that impact on food crime are also assessed, and the relationship between food crime and serious organised crime is considered. The assessment then explores the various, interconnected crime techniques which are observed within food crime, across a range of commodities. Finally, the future of food crime is evaluated.

2.2 Information sources and limitations

- 2.2.1** The evidence base for this assessment is richer than previous assessments, which reflects an increasingly enhanced understanding of food crime and its complexities. This has enabled the development of a detailed and wide-ranging picture of the threat landscape.
- 2.2.2** The assessment draws upon information and intelligence routinely received from a range of sources. These include local authorities, regulatory and law enforcement bodies, those working within the food and drink sectors, and information provided to the Units by members of the public. This includes the incorporation of intelligence supplied discreetly or anonymously, including through the confidential reporting lines made available by the Units.
- 2.2.3** To supplement our baseline data, intelligence requirements were shared with key partners. Debriefs were held with a range of subject matter experts.
- 2.2.4** It is important to highlight that there has been an increase in returns from local authorities in response to our intelligence requirement reflecting the collaborative response to tackling food crime.
- 2.2.5** Intelligence collection by the Units has been augmented by FSA colleagues in Wales and Northern Ireland who have provided relevant insight on the food systems in these nations.
- 2.2.6** This assessment also draws upon datasets such as the UK Food Surveillance System (UKFSS) and Scottish Food Sampling Database (SFSD), other sampling results, and the data made available to the Units by the Food Industry Intelligence Network (FIIN). Collectively these provide a richer (if still partial) picture of what we can learn from sampling and authenticity checks performed by public and private sector alike.
- 2.2.7** Whilst the UKFSS dataset provides the most comprehensive summary of local authority sampling in England, Wales and Northern Ireland available, it is important to note that not all authorities use the system and it is therefore not fully reflective of sampling carried out in these three nations.
- 2.2.8** Better deployment of horizon scanning tools, including bespoke tools developed by the FSA Strategic Surveillance team and the FSS Horizon Scanning Group, has increased the quality of our rolling intelligence collection. This has been alongside increased use of consumer insight reporting, and dedicated engagement with industry and the academic community.

Operation OPSON

One annual feature of the Units' proactive work is their participation (with the invaluable support of partners) in Operation OPSON. This is an internationally co-ordinated focus on substandard or counterfeit food and drink, led jointly by Interpol and Europol.

In recent years, the annual activity has involved intelligence led collaboration and co-ordination, working across the UK and with European partners, to target agreed commodities due to the threats posed to consumers and businesses.

3. Current Environment

- 3.1.1** Food crime is an issue which cuts across food authenticity and safety. As is the case with most criminality, it requires a motivated offender and an opportunity.
- 3.1.2** The Units have identified a number of environmental factors which are relevant to an assessment of the food crime threat, in terms of how they may create opportunities to profit from food crime or impede efforts to intervene.

Regulatory Framework

- 3.1.3** The regulatory and enforcement landscape for food is complex and interwoven. Policy and direction setting are typically carried out by central government departments or agencies, with a number of different departments sharing responsibility depending on the nature of a given issue. Front line regulatory controls, and a significant proportion of enforcement activity are carried out by local authority officers, both from Trading Standards and Environmental Health, who increasingly face competing priorities and resourcing constraints.
- 3.1.4** Most of the issues raised in response to our local authority intelligence requirement relate to areas which consume a large amount of time and resources and can prevent officers from carrying out scheduled interventions at registered food businesses. The key issues include online sales of food products, food businesses operating from domestic kitchens or storage units without registration, and an increase in unregistered businesses.
- 3.1.5** Many of these issues featured in a National Audit Office (NAO) report on food safety and standards published in June 2019.¹⁹
- 3.1.6** A key concern from local authority feedback was the increased diversity of food businesses and products noted by some local authorities, and the challenges that this presents. Concerns in this area include an increasing variety in food supplements and similar products offered for sale, as well as an increase in shops catering for specific communities, and concerns around the legality of imported food products sold in such businesses.
- 3.1.7** The increasing resourcing issues experienced by many local authorities were raised both in their responses and in the NAO report. These have led to a reduction both in available funding, and in some areas in the number of dedicated food officers available to carry out official controls. This in turn will reduce the level of intelligence gathered at local level, impairing the overall UK intelligence picture with regards to non-compliance and food crime.

¹⁹ [Ensuring food safety and standards](#), National Audit Office, June 2019

- 3.2.8** The combination of tightened resources, and an increasing number of complex issues to deal with, may make it harder for authorities to prioritise identifying and tackling food crime. This is particularly the case where fraud investigations are concerned, as owing to budget and capacity constraints, lengthy and complex investigations may not be feasible, or represent the best outlet for public funds in a local context.
- 3.1.9** Elsewhere within the investigatory landscape, the challenges for UK police forces in investigating fraud offences have also been noted,²⁰ which makes the requirement for capacity to address substantial food fraud offences outside of the police even more critical.

Consumer Trends and Attitudes

- 3.1.10** Food allergens have remained a key issue in this period, featuring in a significant proportion of food incident notifications issued by the FSA and FSS. There has been a rise in awareness, driven in part perhaps by media reporting on high-profile incidents.
- 3.1.11** In 2018-19, there were a reported 6,456 hospital admissions due to a food allergy in England alone,²¹ with six deaths recorded in England and Wales in 2018.²² This represents a 9% increase in hospital admissions compared to 2017-18. It is estimated that there are 2 million food allergy sufferers in the UK.²³ In November 2019, 12% of respondents surveyed for the FSA's Public Attitudes Tracker reported having a food allergy or intolerance.
- 3.1.12** From a food crime perspective, this area requires vigilance rather than currently manifesting as a confirmed threat. The Units are supporting work by other teams within both FSA and FSS which is looking to understand the root cause of food allergy incidents in greater detail, as well as working with some local authorities to understand the prevalence of food allergy issues in their areas.
- 3.1.13** A key food trend of 2019 was the continued rise of products containing cannabidiol (CBD), ranging from food supplements to flavoured tea and sweets. The enforcement of CBD products can fall to one of several government bodies, depending on both the product, and the presence of tetrahydrocannabinol (THC).²⁴
- 3.1.14** In January 2019, CBD extracts were clarified as being a novel food, and any extracts sold as food, or a food supplement must have authorisation. With insufficient evidence of a move to compliance, in February 2020 the FSA set a deadline of the end of March 2021 for validated applications. Only products linked to a validated application can remain on the market after this deadline, with no new products allowed without

²⁰ [Fraud victims 'failed' as criminals 'operate with impunity'](#), BBC News, January 2020

²¹ [Food allergy admissions, by government office region](#), for 2013-14 to 2018-2019, NHS Digital, 2019

²² [Deaths registered in England and Wales 2018](#), Office for National Statistics (ONS), 2018

²³ [Food Allergy and Intolerance Programme](#), Food Standards Agency (FSA), March 2017

²⁴ THC is the predominant psychoactive chemical derived from cannabis and is a controlled substance under the Misuse of Drugs Act 1971.

prior authorisation. Precautionary health advice around CBD consumption was also issued²⁵.

- 3.1.15** It is a realistic possibility that this market expansion has led to misrepresentation of quality or benefit as individuals look to capitalise on consumer interest. Local authority testing has identified CBD products which contain no cannabidiol at all, or that contain THC and are therefore highly likely to contravene the Misuse of Drugs Act 1971. It is a realistic possibility that the period until the removal of unvalidated products from the market will see intensified activity in this area.
- 3.1.16** In addition to the increase in CBD products, there has also been an increase in the variety of food supplement and 'health' products on the market. A number of these new products contain unauthorised novel foods, such as selective androgen receptor modulators (SARMs) and dimethylhexanamine (DMHA), or unapproved food additives. Risk levels will differ and we will work with partners to be vigilant to higher-harm products in this area.
- 3.1.17** Such products can present challenges to regulators due to the complexity of the legal status of, and enforcement framework around, the ingredients (within or between novel foods legislation, pharmaceutical regulation and rules around permitted health claims). It can be hard to demonstrate the presence of deception, but it is likely that many of these products are misrepresented in terms of the benefits of taking them, or the safety of doing so.
- 3.1.18** Cultural background and religious practices play an important role in influencing food consumption, both in terms of the type of food and how it is prepared.
- 3.1.19** Within the wide range of seasonal peaks and troughs of demand for specific foodstuffs are some spikes which relate to major festivals or religious observances. A rise is noted in reports of food crime and suspicious activity in the red meat and poultry sectors in the run up to some major festivals in the UK, during which a celebratory meal and/or specific requirements around how the meat is produced form part of the observance or tradition. Demand linked to these events may be met partially or more comprehensively by the entry of illicit product onto the market. This is not, however, a factor uniformly observed across the UK.
- 3.1.20** The impact of other religious and cultural festivals on food crime reporting is not yet fully understood, but further work is ongoing to assess this area. This ties in with broader intelligence gaps around practices linked to foods primarily consumed within ethnic minority or other specific communities.

²⁵ [Food Standards Agency sets deadline for the CBD industry and provides safety advice to consumers](#), Food Standards Agency (FSA), February 2020

- 3.1.21** Whilst we have developed an awareness of some aspects of the production and sale of smokies²⁶ and bushmeat,²⁷ less is known about the true scale of the market for these and similar commodities in the UK. We currently have low confidence in the assessment of threat linked to products popular with specific communities.
- 3.1.22** Some of these products are imported illegally through the postal system, in personal baggage, or undeclared within large, mixed consignments. This can include products of animal origin (POAO), presenting significant risks to human and animal health.
- 3.1.23** It is difficult to generate accurate data on the volume of these imports, but we note increased reporting on the sale of such products in the UK both online and offline.
- 3.1.24** This activity is also likely to fluctuate in response to calendar events, such as the lunar new year – either due to increased product demand, or due to an increase in travel to and from third countries such as China, with associated risks of increased personal imports.
- 3.1.25** Illegal importation can involve both a customs offence and a regulatory breach. The subsequent sale of potentially illegal food, often with non-compliant labelling, is certainly of concern to the regulatory community, and in some cases may constitute a food crime. We are working partners at points of entry to better understand this issue and the potential risk.

²⁶ The meat of sheep or goats, which are slaughtered then burnt, without being properly butchered.

²⁷ The meat of non-domesticated animals which are sold and consumed as food.

African Swine Fever

The dangers of illegally imported food products have been highlighted as African Swine Fever (ASF) has spread through global pig populations. Whilst the likelihood of infected product entering the animal feed chain in the UK is low, the potential impact of the disease – agriculturally and economically – makes ASF a key issue to governments worldwide.

Testing of illegally imported food products seized at points of entry in Northern Ireland in June 2019 identified the presence of fragments of ASF DNA in some products.²⁸

In October 2019, a joint Defra and UK Border Force operation targeting illegal imports of meat products in passenger baggage at Heathrow Airport seized 460kg of meat, including 145kg of pork product, over a six-day period.²⁹ It is not known whether any of this product was infected with ASF but the volume highlights personal baggage as a vector for importation.

In December 2019, several tonnes of Chinese meat, including pork, concealed in a shipment of vegetables, was identified in a warehouse in Italy (having entered the EU via Rotterdam).³⁰

Chinese dumplings seized in the Philippines in early 2020 were found to contain ASF DNA, suggesting either that waste product from culled animals has been redirected into the food chain, or that animals which were not identified as infected are being used in food production.³¹

- 3.1.26** Some food crimes can have a regressive impact, exerting a disproportionate effect on poorer households. Such households may spend a greater proportion of their income on food, and focus not on food authenticity, but on feeding themselves and their household.
- 3.1.27** Data suggests that food bank use in the UK is increasing significantly.³² This apparent increase in the number of households requiring assistance may provide an opportunity for fraudsters to exploit by marketing waste, or poor quality ingredients, as cheap but viable food.

²⁸ [DAERA reminds holidaymakers - don't risk it, leave it behind](#), Department of Agriculture, Environment and Rural Affairs (DAERA), July 2019

²⁹ [Sniffer dogs at the border join fight against African swine fever](#), Gov.UK, October 2019

³⁰ [Italian authorities seize nearly 10 tons of infected Chinese pork](#), Deutsche Welle (DW), January 2020

³¹ [Seized pork dumplings from China test positive for African swine fever](#), CNN, January 2020

³² [Independent Food Bank Emergency Food Parcel Distribution in the UK](#), Independent Food Aid Network (IFAN), 2020

- 3.1.28** Fraud can also impact upon those who support needier parts of our societies. In summer 2019, French authorities identified a large quantity of beef product, supplied to a number of charities, was adulterated with substances including soya, fat and animal skin.³³
- 3.1.29** Conversely, we note increased demand for products of premium status by more affluent consumers pursuing health-conscious, environmentally aware or ethical lifestyles.
- 3.1.30** This has seen a rise in the number of UK consumers choosing animal-free, locally sourced or ethically produced food and drink. Such products can be vulnerable to food crime, as it is difficult for consumers to confirm the veracity of the claims made. Many consumers are willing to pay a marked-up price based on a level of trust placed in product labelling, certifications or endorsements of assurance bodies. FSA research has identified that 61% of consumers agreed that the people who produce and supply food should make sure it is safe, honest and ethically approved, and noted upward trends in consumer concern about animal welfare and pesticide use. Nearly three quarters of consumers declared themselves to be conscious of the wider impact of the food choices they make.³⁴
- 3.1.31** Many products developed to target this increasing market contain expensive or unfamiliar ingredients which make them vulnerable to the commonly observed food crime techniques of substitution and adulteration. This risk may increase when raw material prices fluctuate in response to increased demand for these niche products worldwide.

Impact of Technology

- 3.1.32** A continuing trend is the willingness of UK consumers to buy food online, and the increased ease of purchase and availability of food sold through online channels. In 2019, 32% of internet users in the UK purchased food online, compared to 19% across the EU.³⁵ These changes to the shape of food commerce have made delivering controls more difficult.
- 3.1.33** **Online marketplaces** have made the internet sale of food easier, enabling vendors globally to trade without having to set up a physical shopfront. However they present challenges to current methodologies for food controls and enforcement. It is often difficult to deduce the physical location of a business selling through online platforms, and thereby to identify who is responsible for administering controls.

³³ [Fat, skin, soy... everything except meat in these steaks delivered to associations](#), Courrier picard, June 2019

³⁴ [FSA Public Attitudes Tracker, Wave 19 Report](#), Food Standards Agency (FSA), February 2020

³⁵ [Internet purchases by individuals](#), Eurostat, 2019

Figure 1: Intersections between food and crime and e-commerce



- 3.1.34** The rise of **online aggregator platforms** has meant more ready-to-eat food being delivered directly to consumers from informal or non-restaurant-based kitchens. Throughout 2019, cases have been reported of food sold through these platforms coming from an unregistered food business operator (FBO) or being misrepresented as being from a higher quality establishment. This highlights the potential to register a food business on a platform without the proper scrutiny applied.
- 3.1.35** **Social media** is also increasingly used to sell food – used in a similar manner to online marketplaces, but with less auditability or traceability. Social media enables traders to sell directly to consumers, or to target specific communities with adverts for speciality goods. Food produced in residential kitchens is sold through these platforms. It is hard for consumers to reassure themselves that products are safe, authentic and hygienically prepared; this is an area which has been subject to media scrutiny. The FSA has emphasised the responsibilities of social media companies towards consumers making food purchases via their platforms.³⁶
- 3.1.36** It is also possible to buy food on the **dark web**³⁷ – primarily dangerous or borderline food supplements and other illicit food commodities. Operational activity has identified the sale of the industrial chemical DNP – an area of priority for the Units – in this environment, marketed for human consumption.
- 3.1.37** Online routes for purchase also exist for materials such as antibiotics and animal microchips – articles which may be used in illicit practices such as re-identifying livestock or the illicit administration of antibiotics to poultry.
- 3.1.38** The challenges presented by the growth in online sales of food are recognised by the Units. Work led by both the FSA and FSS, in co-ordination with other government partners, is key to tackling this issue, and the Units will continue to support this work, particularly where there are opportunities to reduce the threat and impact of food crime.

³⁶ [Facebook: Home food businesses concern FSA watchdog](#), BBC News, February 2020

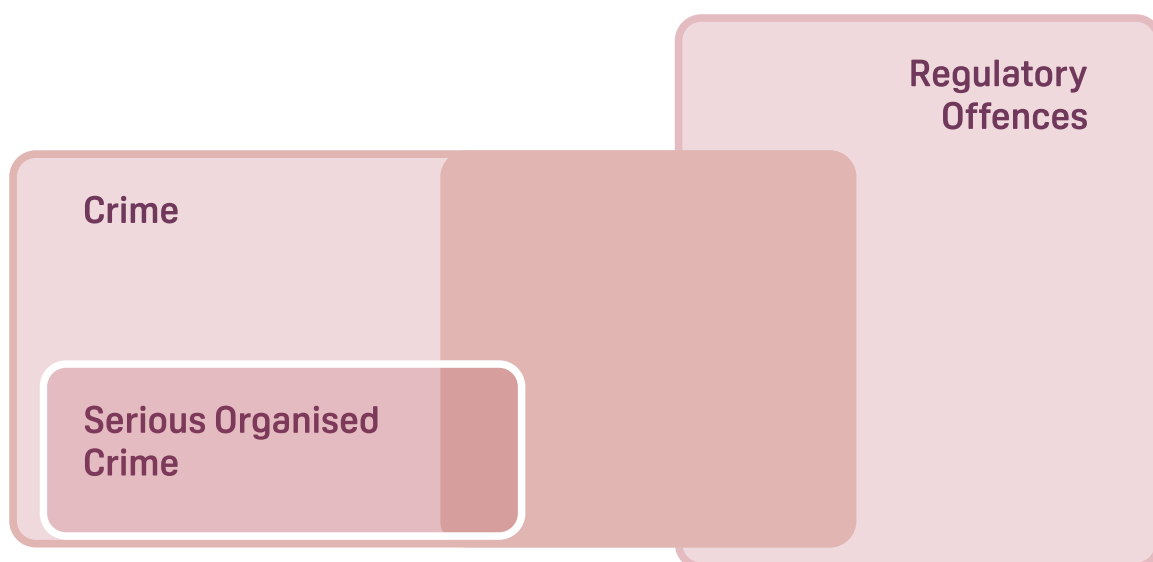
³⁷ The dark web is a part of the internet which sits separately to that accessible via conventional browsing activity. It requires specialist (but broadly available) software, such as a special browser to access it.

4. Food Crime and Serious Organised Crime

4.1 Overview

- 4.1.1** Food crime is defined as “serious fraud and related criminality within food supply chains”. This differs from breaches of food safety legislation (which predominantly impact only on the safety of food), breaches of food standards regulations not resulting from fraud, or serious organised criminals making use of food or food businesses to commit other offences.

Figure 2: Overlaps between types of offences which impact on food



- 4.1.2** Although there are exceptions, most food crime is carried out by groups who have backgrounds in the food industry. These food crime groups will often exploit a wholly or partly legitimate food business as a vehicle to sell illicit, unsafe, or inauthentic food products.
- 4.1.3** There is minimal evidence of any significant involvement of more broadly active Organised Crime Groups (OCGs) being involved in food crime taking place in the UK, or migrating their activity into this sector.
- 4.1.4** This is not to say that food crimes are not frequently organised, serious in scale and harm, and linked to the interaction of several individuals or entities, or that those responsible should not be categorised as OCGs. Furthermore, this does not indicate that criminally active food businesses do not, on occasion, extend their activity into other areas.

- 4.1.5** We assess it as unlikely that many food criminals make a proactive choice to switch from acting as a compliant food business operator, to being a fully illegitimate one. It is more plausible that a decline in the probity of a business's practices takes place over time, with some FBOs perhaps only temporarily engaging in criminality due to financial pressure, or opportunistically.
- 4.1.6** It is certainly the case that some FBOs are engaged in food crime, but that this only forms part of their business, with at least some of their activity remaining legitimate.

4.2 Exploitation of the food system

- 4.2.1** We assess that there are three primary ways in which traditional OCGs make use of food to conduct criminal activity; money laundering, smuggling, and as an environment for labour exploitation.
- 4.2.2** Crime groups are known to trade in food commodities to launder money.³⁸ It is unlikely that this has a significant impact on food authenticity or safety. It is highly likely that the food industry will always be exploited for money laundering as it is, in places, cash based, whilst also at points featuring long, international supply chains.
- 4.2.3** Criminals have been known to conceal illicit goods such as drugs, firearms and other illicit commodities within food as part of an effort to smuggle them without detection. Exact methodologies have been varied, perhaps to avoid detection.
- 4.2.4** The use of food as a cover for smuggling has been noted frequently in 2019 and more recently, with a variety of food types being employed.³⁹ It is assessed as highly unlikely that this meat, or any food used as part of a concealment, entered the food chain once the drugs had been retrieved. This is due to the general poor condition of the food leading to an increased risk of detection and the endangerment of the substantial criminal proceeds from the drugs offences. However, where cover loads are abandoned (for example in a cold store), or in better condition, there is a greater possibility that the material will enter the food chain.
- 4.2.5** Agriculture, food processing, food service, and shellfish gathering are regularly affected by labour exploitation issues. These labour abuse offences can co-exist with food crime issues, perhaps most explicitly with regards to shellfish harvesting.

July 2019:

300kg

**of cocaine found
concealed in
pallets of meat
at Harwich.**



³⁸ Trade based money laundering is the process using multiple, complex, international trades to disguise the movement of large quantities of money. These processes make it very difficult to understand the original origin of the proceeds of crime. The National Crime Agency's [National Strategic Assessment of Serious and Organised Crime 2020](#) judged that trade based money laundering remains a key threat.

³⁹ [Fowl play: four jailed for importing hundreds of kilos of cocaine in frozen chicken](#), National Crime Agency (NCA), May 2020

- 4.2.6** The Gangmasters & Labour Abuse Authority have reported an increase in reports of illicit shellfish harvesting involving labour exploitation. Most reports focus on cockles, oysters, mussels and winkles, with reporting suggesting potential links between gangmasters and Asian restaurants.⁴⁰ Partnership working, including joint days of action is ongoing to aid understanding of this issue and intelligence flows.

4.3 Food criminals and serious organised criminals

- 4.3.1** It remains our assessment that in-depth knowledge of, and access to, established and at least partially legitimate production, storage, distribution facilities or marketplaces is necessary to conduct most food crimes. It has been our hypothesis that this is more important than knowledge of criminal techniques in more general terms, or broader experience of connections within organised crime fraternities; this inference remains largely sound.
- 4.3.2** For some parts of the industry, however, barriers to entry into the food sector may be less substantial. Examples of this include products which are less perishable or can be easily distributed into informal or low-scale retail chains, such as alcohol. Avenues for online sales (whether overtly or via the dark web) also open opportunities for criminal profit to those less embedded in the food economy, for example through the mail order supply of food supplements of varying degrees of legality and safety.
- 4.3.3** The most attractive food target for more broadly active criminals who are not already rooted in the food industry may indeed be alcohol; especially spirits. If a crime group can distil or buy a product such as vodka at minimal cost, avoid paying the proper taxes and sell the product at the going market rate or a competitive price slightly below it, significant profit can be made (particularly when the financial benefits of duty evasion are also considered).
- 4.3.4** It is almost certain that illicit spirits are being sold through independent retailers to customers primarily concerned with the cost of the product, rather than authenticity. Vodka is a regular subject of intelligence and can be subject to concern due to safety issues if improperly produced, for example through the incorporation of industrial alcohols.
- 4.3.5** As with the food and drink sector, criminality is moving increasingly online. According to the National Crime Agency, there has been ongoing growth in criminal trade on dark web platforms, although the pace has slowed over the past year.⁴¹
- 4.3.6** Whilst action can readily be taken against websites selling inauthentic or dangerous substances on the surface internet, dangerous non-foods are also observed being sold on dark web marketplaces alongside drugs, firearms and other illegal commodities.

⁴⁰ [Industry Profile - Shellfish](#), Gangmasters and Labour Abuse Authority (GLAA), 2019

⁴¹ [National Strategic Assessment of Serious and Organised Crime](#), National Crime Agency (NCA), 2019

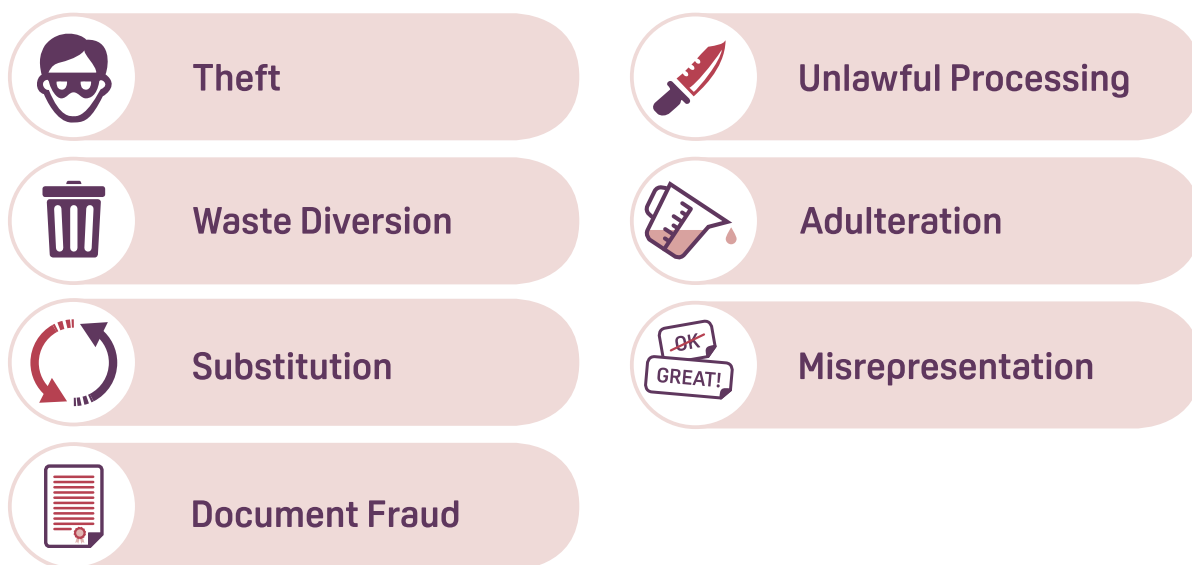
- 4.3.7** Though dangerous non-foods – unsafe products which are sold in a manner explicitly or implicitly indicating suitability for consumption – have led to the deaths of a number of UK consumers, they are not clearly within the remit or priorities of law enforcement partners whose specialist capabilities extend to those operating on the dark web.
- 4.3.8** There is a realistic possibility that the growth of the dark web will lead to more food items being sold in online environments where control bodies have limited ability to act. We are exploring this area further in order to confirm this hypothesis.
- 4.3.9** It is assessed that the domestic food sector is far less exposed to serious organised criminality than may be the case in other countries. So-called Agromafia groups are known to play a role in the Italian food industry and have sought to exploit this economically important (and culturally significant) sector. Similarly, the increasing worldwide demand for avocados has seen rising interest in food production by crime cartels in Mexico. The impact in the UK is more likely to be observed in product availability or authenticity than through similar groups becoming entrenched within the domestic sector.
- 4.3.10** It is noted that the UK border within the island of Ireland is an existing locus for commodity-based activity involving organised criminals, including food. The Irish land and sea borders will be an area of vigilance as the UK transitions into a future economic relationship with the European Union and into a period where Northern Ireland holds a place within both the EU and UK markets.

5. Threat Assessment

5.1 Overview

5.1.1 The Units have identified seven main techniques of food crime, including the enabling crime of document fraud, shown below:

Figure 3: The seven types of food crime



5.1.2 Using this framework, we look to understand and assess risk posed by food crime.

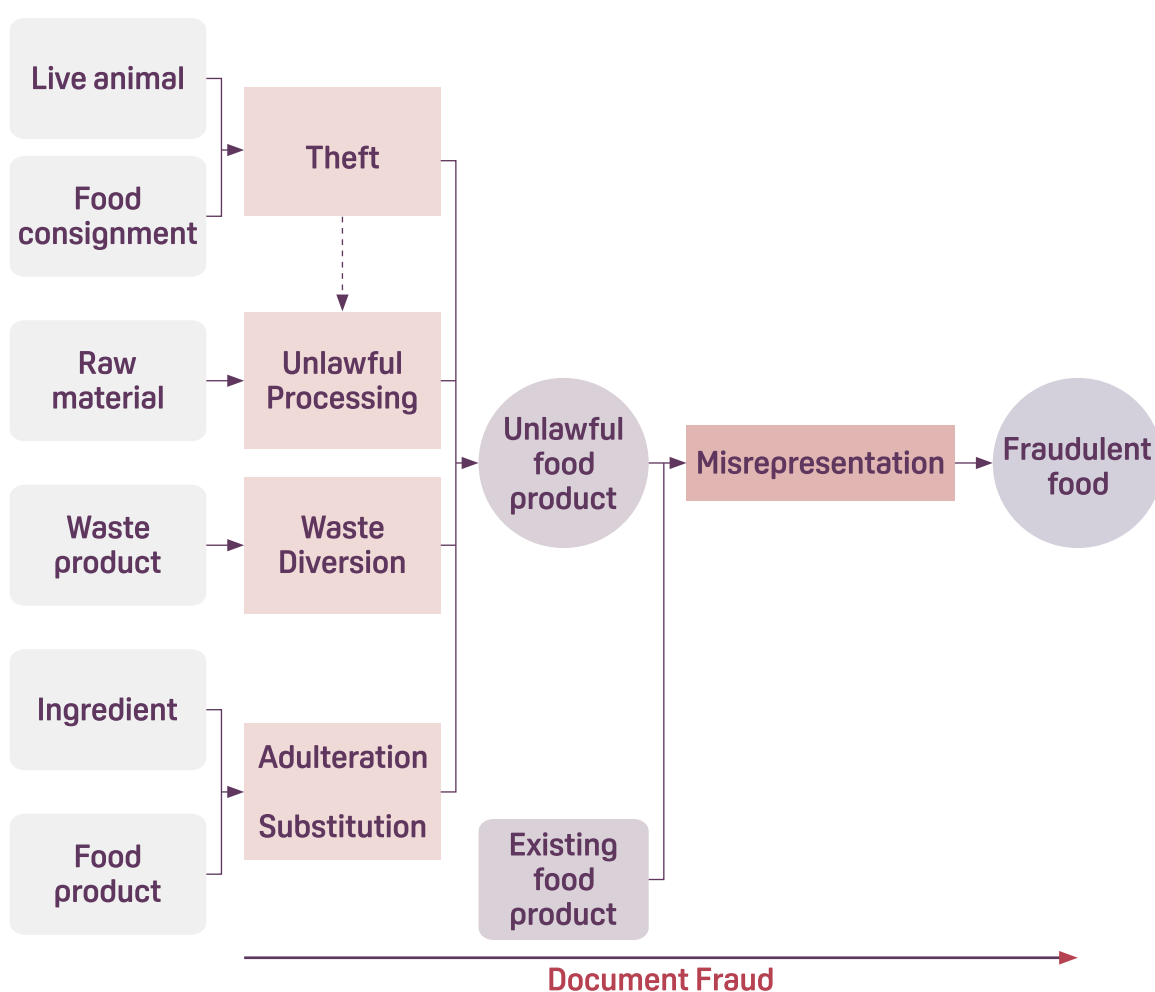
5.1.3 We find that adulteration, substitution and the various forms of misrepresentation are the crime techniques which are present across the broadest selection of product types and consequently feature most frequently within our intelligence, particularly misrepresentation.

5.1.4 **Theft** and associated activities usually sit towards the beginning of the food crime supply chain – and can also include **waste diversion** where a product has been entrusted to a company for purposes of disposal but is then sold on. They are a common precursor to **unlawful processing**. As well as leading to the misrepresentation of quality, waste diversion can also drive unauthorised altering and misrepresentation of durability dates.

5.1.5 **Substitution** and **adulteration**, similarly, affect products before the point of sale. This can take place close to the point of primary production (potentially overseas), while the product is in the control of an intermediate owner or processor, or in the retail or catering establishment which will ultimately deliver the product to the consumer.

- 5.1.6 Misrepresentation** is the final and most visible aspect of dishonesty by a food business operator, enabling a substandard product to be passed onto an unsuspecting party. This, ultimately, is what cloaks the invisible shortcomings of a product from the casual eye of a consumer. As nearly all food crime will require an element of misrepresentation it is unsurprising this is the aspect of food crime on which the Units hold the most intelligence.
- 5.1.7** Whilst commonplace, however, misrepresentation is not always necessary to profit from food crime. A knowing consumer may rationalise buying illicit product if it, or its price, is sufficiently attractive – and be more forgiving of shortcoming in quality as a result of the price.

Figure 4: Process diagram of food crime types



- 5.1.8** Each section of this chapter looks to find the commonalities between the various applications of the techniques discussed, as well as suggesting where the risk within each area is assessed to be the most profound.
- 5.1.9** This chapter is not an exhaustive list of all matters currently known to the Units. The following is an assessment of the most prominent themes within the food crime landscape.

- 5.1.10** While food crime techniques are useful for identifying and codifying activity, we note it is rare that a food crime involves just one of the techniques.

5.2 Theft

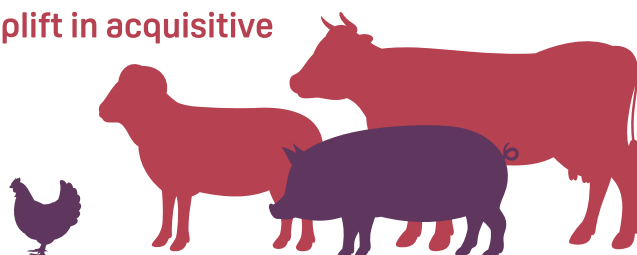


Theft: the dishonest appropriation of food, drink or feed products from their lawful owner with an intention to benefit economically from their subsequent use or sale.

- 5.2.1** Acquisitive crime within the food industry is focused largely on the theft of protein sources, such as shellfish and livestock, and of high value foods during distribution. The nature of the crime, and associated risks, between these areas differ significantly.
- 5.2.2** Illicitly obtained food, including that produced from stolen animals, may present a significant food safety risk to consumers as it is unlikely to have been handled, processed or transported in line with food safety and hygiene requirements, or subjected to official controls. Such risks are particularly high with products which would usually be subject to a purification process (such as shellfish), or a withdrawal period before entering the food chain (for example livestock treated with certain veterinary medicines).
- 5.2.3** As the financial benefit from these activities is only gained through onward sale of the product, it is almost certain that other food crime methodologies, principally unlawful processing and document fraud, are employed alongside the theft. This may be in addition, to misrepresentation where the product reaches consumers or enters legitimate supply chains.

The rural insurer, NFU Mutual, estimates that **between 2017 and 2019, there was a 20% uplift in acquisitive crimes within the UK livestock sector, with an estimated cost of**

£3m in 2019



- 5.2.4** **Livestock theft** affects rural areas across the UK, and criminals are showing an increasing degree of organisation in their practices. The rural insurer, NFU Mutual, estimates that between 2017 and 2019, there was a 20% uplift in acquisitive crimes within the UK livestock sector, with an estimated cost of £3 million in 2019.⁴²
- 5.2.5** It is likely that there is an underreporting of livestock theft to the relevant authorities. It is possible that cattle reported as ‘missing’ are not always recorded as a crime and may therefore not be included in current figures.

⁴² [A challenging time for the countryside, Rural Crime Report 2020](#), NFU Mutual, 2020

- 5.2.6** The onward sale or processing of stolen livestock into the food chain, and whether this is done through legitimate, or clandestine routes, is not fully understood. Recently established access to cattle identification and movement data for police forces may enable the identification of some routes to market.



Case Study: Operation STOCK

Between February 2019 and August 2019, a multi-agency taskforce, led by Northamptonshire Police, investigated the slaughter and butchery of over 150 lambs and sheep, along with the theft of a further 250+ sheep and lambs in the same region.⁴³ In October 2019, three men were charged in connection with this activity and appeared in court to face charges of conspiracy to steal. All later pleaded guilty and received custodial sentences in March 2020.

Whilst the theft of livestock is a police matter, the butchery and subsequent sale of meat into the food chain is not, and presents food safety concerns due to the way the meat has been processed and handled. Additional concerns were raised around potential veterinary medicine residues in meat from some of the animals stolen, which may pose a public health risk if consumed.

- 5.2.7** We assess that **poaching** in the UK impacts a number of species, with deer, fish and shellfish species being the most common targets.
- 5.2.8** The **unlawful harvesting of shellfish** in coastal regions across the UK continues to feature prominently in reporting, with cockles, Manila clams, razor clams, and oysters reported as the most commonly targeted species.
- 5.2.9** Intelligence received within the reporting period for this assessment has identified unlawful harvesting taking place in the South West, South East, and North West of England, North East Wales, and around the Scottish and Northern Irish coasts.
- 5.2.10** Methods of harvest reported include both hand gathering, and harvesting from boats, including the use of yield maximising methodologies such as dredging or illegal electrofishing.⁴⁴ It is a realistic possibility that some of this activity is linked to labour abuse by organised crime groups. Varying levels of scale and organisation are reported.
- 5.2.11** Illegal shellfish harvesting occurs in both classified and unclassified or closed beds. Consumption of shellfish from these locations can pose a significant threat to consumer health, but our regulatory partners are active in detecting and disrupting this activity.

⁴³ [Operation Stock](#), Northamptonshire Police, 2020

⁴⁴ On 01/02/2018, a Scottish Government electrofishing trial for approved harvesters was launched, in respect of the harvesting of razor clams.

- 5.2.12 The Units' understanding of the variety of avenues through which illegally harvested shellfish enters the market has increased significantly since the last assessment.
- 5.2.13 There are three common routes to market: sale to commercial processors; direct export overseas; and sale to local food businesses, or those catering to specific communities.
- 5.2.14 It is likely that onward transfer routes may vary depending on the cultural heritage of those co-ordinating the harvesting activity, and a realistic possibility that the area where the activity is taking place (and its local demography) has some bearing on this.
- 5.2.15 Co-ordinated multi-agency activity, supported by the NFCU, at a number of locations around the English and Welsh coastlines, and similar activity in Scotland by SFCIU has been successful in strengthening relationships and intelligence flows between the different agencies involved in regulating this area.
- 5.2.16 Illegal dredging and electrofishing can have a significant environmental impact by dramatically changing the properties of the seabed, as well as depleting targeted population stocks, which can be slow to recover. It is a realistic possibility that this depletion of local shellfish populations could result in displacement of illegal harvesting to other coastal regions.
- 5.2.17 Whilst it is likely that **poaching of wild game** continues to be an issue, limited reporting has been received on this matter.
- 5.2.18 Reporting received focuses mainly on the poaching of deer. The most likely route for poached venison to enter the food chain is assessed to be via direct door-to-door sales to businesses such as restaurants, pubs and butchers. It is unknown whether sales of illegally poached venison are always local to the poaching location, or whether poachers travel further afield to sell the carcasses.
- 5.2.19 A current intelligence gap is the extent to which the trade of poached game is enabled by any vulnerability to fraud perpetrated through the misuse, or deliberate false completion, of the required documents which verify the carcass condition and kill date.
- 5.2.20 In more direct acts of theft, food products are often targeted for theft during distribution, with at least £5.5m worth of food stolen from vehicles in the UK between January and September 2019.⁴⁵ In 2019, alcohol was reported as the food product most frequently targeted in theft from distribution vehicles. It is highly likely that criminals target alcohol as it is a high value and non-perishable commodity, which does not require specialist knowledge, or further processing in order to sell on for profit.
- 5.2.21 **Identity theft** is a continued issue within food crime. The fraudulent use of a legitimate business's identity, for financial gain through the placing of fraudulent orders with overseas suppliers, is commonly referred to as European Distribution Fraud (EDF). Legitimate food businesses are approached to supply quantities of product, believing that the genuine company placed the order. The goods are diverted while in transit, and never paid for.

⁴⁵ Transportation Assets Protection Authority (TAPA)

- 5.2.22** It is almost certain that food stolen through EDF is placed into the food chain by employing other food crime techniques, including misrepresentation and document fraud.
- 5.2.23** It is also a realistic possibility that stolen food is not handled, stored or transported appropriately, and therefore may pose a food safety risk. This risk will vary significantly, based on the intended subsequent use of the product, and the routes through which it is distributed.
- 5.2.24** EDF offences should be reported to Action Fraud,⁴⁶ to equip the law enforcement community with a full understanding of the prevalence of this issue. The onward movement of product into the food chain constitutes a food crime due to the absence of proper traceability.
- 5.2.25** It is highly likely that there is underreporting of EDF offences, and so the true scale or nature of EDF in the UK is currently unknown. It has not been possible to obtain a thorough dataset regarding the scale and extent of this problem but we are developing partnerships to enhance this.
- 5.2.26** In the cases the Units are aware of, EDF has targeted a variety of foodstuffs. High value items such as red meat, poultry and eggs are frequently targeted. Offenders will usually impersonate a well-known UK supplier or manufacture to lend legitimacy to their order, and may exploit overseas suppliers who, as non-native English speakers, may find it harder to identify orders which are less professionally presented.
- 5.2.27** Equipping food businesses with the capacity to recognise and prevent attempted frauds of this nature is an important area of focus for food crime prevention activity.

⁴⁶ Action Fraud is the UK's national reporting centre for fraud and cybercrime. The service is run by the City of London Police in their role as the national policing lead for economic crime.

5.3 Unlawful Processing



Unlawful Processing: the slaughter, preparation or processing of products of animal origin outside of the relevant regulatory framework.

- 5.3.1** In the context of food crime, unlawful processing can include the use of unapproved techniques or processes, or the production of food outside of an approved establishment.
- 5.3.2** Food and animal feed produced in this way pose a significant risk to consumer health, due to the absence of mandatory safety procedures, and official controls.
- 5.3.3** Incidences of unlawful processing have been observed within the red meat, poultry, shellfish, egg and animal feed sectors. It is highly likely that further food crimes such as misrepresentation of quality or date, and document fraud, will be necessary to place the food onto the market unless being sold to those who are fully aware of the true origin of the food and accept this, owing perhaps to it being very keenly priced.
- 5.3.4** Whilst it is almost certain that the red meat and poultry sectors share common vulnerabilities in aspects of food crime such as misrepresentation of date and origin, limited reporting has been received in relation to unlawful processing within the poultry sector.
- 5.3.5** Unlawful processing of poultry is not considered to be a significant threat at present as slaughter of poultry at anything other than industrial scale is commercially challenging.
- 5.3.6** Intelligence around unlawful processing falls largely within the following categories:
 - Illegal slaughter:** The slaughter of animals in an unapproved slaughterhouse or by an unapproved slaughterman.
 - Unapproved establishment:** Use of premises which are not registered or approved by the competent authority for the production of foodstuffs.
 - Unapproved activity:** Carrying out an activity within approved premises, for which the premises has not been specifically approved.
- 5.3.7** Where unlawful processing occurs within approved premises, it is likely to be found in conjunction with other regulatory non-compliances. This has been observed in both small and large-scale establishments.

Approved Premises

European Commission Regulation (EC) 853/2004 and (EC) 852/2004 details the requirements an establishment needs to achieve for approval. The process of approval is contained in Regulation (EU) 2017/625.

Competent authorities must establish procedures which reflect the approval process described in (EU) 2017/625, which are intended to ascertain a Food Business Operator's compliance with the requirements of Regulations (EC) 852/2004, 853/2004 and other aspects of food law, including animal welfare and animal by-products.

- 5.3.8** Whilst the majority of unlawful processing is carried out by entities who have never sought to comply with the necessary legal requirements, there are some instances where FBOs who previously operated legally begin unlawful processing (when approval to operate is removed from the business, but they continue to trade). Alternatively, a compliant operator may augment profits from their legal activity with income from illicit business. Both scenarios present a risk of unfit food entering the food chain owing to the absence of proper controls.
- 5.3.9** We assess that the current process for revoking approval may not effectively mitigate the risks posed by non-compliant meat establishments. Continued operation may only come to further regulatory attention if they are identified as an unregistered food business and liaison between different parts of the regulatory landscape is important here.
- 5.3.10** Within the reporting period, vulnerabilities within the current approval mechanisms for meat establishments have been exploited by those attempting to evade scrutiny, through the creation of phoenix companies. This allows FBOs whose approval has been revoked to set up a new business and apply for approval under a new identity or with different directorship.
- 5.3.11** In parts of the UK it is almost certain that a number of approved establishments are illicitly slaughtering out of hours at times of peak consumer demand, particularly around major religious and cultural festivals. It should be noted that this is not broadly noted in intelligence relating to Scottish establishments, and also that many abattoirs do legally operate outside of usual hours during these periods, with the necessary official controls taking place.
- 5.3.12** **Illegal slaughter** has been a recurring theme in reporting received by the Units, most notably the in-field slaughter and butchery of sheep and lambs in the Midlands. The evidently poor hygiene conditions associated with these practices heighten the risk to the consumer.
- 5.3.13** A similarly heightened level of risk is observed in relation to the illegal processing of harvested shellfish. Reporting has indicated shellfish being shucked in commercial quantities on UK coastlines, close to known harvesting areas, in unhygienic conditions.

- 5.3.14** It is likely that this activity is driven by the greater ease of transport of shucked material, and demand for shucked product within Pacific-East Asian communities.
- 5.3.15** Most unlawful processing is driven by financial motivation, through the lower costs of operating outside of approval, or by increasing throughput and sales. In some instances it may be to meet consumer need when their preferred product cannot be produced legally in the UK.
- 5.3.16** ‘**Smokies**’ are commonly produced for specific communities based predominantly in and around London. They pose a serious health risk to the consumer due to the methods of production and transportation.
- 5.3.17** It is highly likely that their production is facilitated through the theft and illegal slaughter of sheep.
- 5.3.18** In 2017, the intelligence picture suggested that the production of smokies was concentrated in Wales, with carcasses transported to London for sale. Intelligence received during this reporting period suggests that production of smokies has now been identified at some level in regions across England, Wales, and Northern Ireland, with no single nexus of production. This practice has also come to the attention of Irish food safety authorities.
- 5.3.19** It is not fully understood why such significant diversification in production locations has taken place, and there is no intelligence to suggest a fundamental change in the communities buying smokies. Limited intelligence indicates farmers knowingly supplying animals for the production of smokies, although this does not appear to be widespread.



Case study: Smokies prosecutions

In September 2019, the Proceeds of Crime Act (POCA) hearing of a Welsh ‘smokie’ producer, heard that he had made in excess of £100,000 from the production and sale of ‘smokies’. He was ordered to pay £30,000 towards the costs of his prosecution – this is in addition to an eight-month prison sentence suspended for two years given in 2017.

Though it is possible that the 2017 arrest and prosecution of this individual was effective in disrupting the supply and distribution of ‘smokie’ meat from Wales to areas of the UK, alternative production established. A group of three men who were discovered producing ‘smokies’ in Pembrokeshire in January 2019 received suspended custodial sentences in September 2020.

- 5.3.20** Within the UK egg sector, reporting has detailed **unlawful processing of eggs**, namely the washing of ‘floor eggs’ to enable their subsequent misrepresentation as Class A eggs. Due to high levels of contamination or shell damage, floor eggs cannot be sold as Class A, and must be broken and pasteurised. The scale of this practice is not fully understood. Egg marketing inspection is a responsibility of the Animal and Plant Health Agency (APHA).

- 5.3.21** Welfare concerns such as the overstocking of poultry sheds have also been noted within activities preceding the misuse of free range labelling.
- 5.3.22** Reporting in relation to unlawful processing within the animal feed sector has focused on the production of raw pet food in unregistered or unapproved establishments. It is likely that pet food produced in unapproved establishments is not subjected to appropriate temperature and hygiene controls, posing a health risk to both pets and their owners.

5.4 Waste Diversion



Waste Diversion: the unauthorised diversion of food, drink or feed intended for disposal back into relevant supply chains.

- 5.4.1** Waste diversion is the redirection of waste product considered high risk for human or animal consumption, such as by-products from food production or finished goods that have failed relevant quality tests or standards.
- 5.4.2** The level of reporting in this area remains limited, although it is likely to be much higher than current reporting suggests. Any activity taking place is likely to pose a serious risk to either public or animal health due to the nature of the products being repurposed.
- 5.4.3** The food and feed sectors produce significant quantities of waste for which there are permitted purposes and approved routes for disposal. It remains lucrative, however, to misdirect waste back into the food or feed chain, particularly as many businesses would otherwise have to pay to correctly dispose of this material.
- 5.4.4** In the most serious instances, improper use of animal by-products could result in the spread of transmissible animal diseases such as Bovine Spongiform Encephalopathy (BSE). Catering waste containing meat, if diverted into animal feed, could spread diseases such as African Swine Fever (ASF) and Foot and Mouth Disease.

Animal By-Products (ABP)

ABP consists of animal carcasses, parts of animals or animal derived products which are deemed unfit for human consumption. They are divided into three categories of risk from 3 to 1, which determine the level of processing required for the product.

Most category 3 ABP can be used for either raw or processed pet food, whilst categories 1 and 2 are classed high risk, for disposal via an approved ABP processing facility.

- 5.4.5** Reporting has identified instances of food businesses incorrectly disposing of Category 1 specified risk material as a lower category. This would make it cheaper to dispose of but means there is a realistic possibility that product which should be incinerated could be misdirected into animal feed. This is a potential animal health risk as material classified as Category 1 includes specified risk material, which may contain elements of TSE⁴⁷ diseases.
- 5.4.6** Illegal slaughter and unlawful processing also pose waste diversion risks as there is no independent verification of correct waste disposal. Limited reporting in this area suggest that this is a particular issue with poached game.
- 5.4.7** Reporting during this period confirms that acts of waste diversion continue to exploit secondary sales routes, through the onward sale of returned, or unfit products. It is a realistic possibility that consumers are unaware they are purchasing a lower quality product and may be paying a price consistent with the genuine product. Such activity can result in extensive reputational and brand damage to the business whose products have been diverted, even if any safety risk is minimal or absent.

5.5 Adulteration and Substitution



Adulteration: reducing the quality of a food product through the inclusion of another substance, with the intention either to make production costs lower, or apparent quality higher.



Substitution: replacing a food product or ingredient with another substance of a similar but inferior kind.

- 5.5.1** Adulteration and substitution can be very similar. Regardless of the ambiguity between the two crime types, they can both represent a clear, intentional act of fraud, and are addressed as such from a food crime perspective.
- 5.5.2** We continue to observe three principal activities in this area. Instances of their application vary in volume, severity and harm.
- 5.5.3** Such techniques elevate risk by introducing food into the food chain, which in some instances can, cause physical, or emotional harm, through the introduction of undeclared allergens, or meat species which may compromise religious or ethical observances. The customer is misled into buying food which is not what the labelling suggests it is.

⁴⁷ Transmissible Spongiform Encephalopathies (TSE) are a group of degenerative diseases affecting the brain and nervous system of animals, including humans. Bovine Spongiform Encephalopathy (BSE) is in this group.

Figure 5: Adulteration and Substitution**Quantitative**

The deliberate addition of something of lower value to increase the volume or weight of a product. This technique enables the sale of a greater quantity of product of inferior quality.

Qualitative adulteration

The deliberate addition of a substance to make a product appear of higher quality. This technique allows a product to be sold at a higher price.

Substitution

Deliberately swapping a product (or ingredient) for a less expensive, or more available one. This enables sale of the product at the same price, but with reduced costs.

Quantitative Adulteration

- 5.5.4** Commodities which are known to have been impacted by quantitative adulteration include red meat, olive oil, vodka and saffron. Notably, most of these product types are produced, and in some cases packed, overseas. However this does not mean that there is no impact on UK consumers and on businesses who use these ingredients in their own production.
- 5.5.5** Both substitution and adulteration are commonly observed crime techniques with regards to **red meat** products, particularly processed and composite products.
- 5.5.6** Whilst meat products subject to substitution or adulteration tend not to pose any elevated safety risk, they may compromise the religious observances of some consumers, particularly where pork or beef is used as the replacement meat.
- 5.5.7** Available industry data makes clear the extent of commercial vigilance in this area and the low level of anomalies. The data identified that only 0.02% of a large volume of authenticity tests on red meat products showed signs of possible adulteration with other species.⁴⁸
- 5.5.8** Results from local authority and centrally funded sampling around red meat and meat products identify more non-compliances, but this testing activity will have been targeted, focussing on testing foods which have traditionally been non-compliant, or businesses (or categories of business) with histories of non-compliance.

⁴⁸ 7 out of 30,437 samples tested for speciation within this dataset.

- 5.5.9** Lamb features as a commonly replaced species but is also regularly sampled – likely due in both cases to the comparatively high retail price of the meat. Beef is a regularly identified replacement species. None of the samples taken during this period have indicated the undeclared presence of horse meat.
- 5.5.10** The product categories most commonly affected are processed meats such as mince, kebabs and sausages. The appearance and composition of such products make it challenging for consumers to identify fraud. It is almost certain this vulnerability will continue to be exploited in the UK although this is very much a known area of risk for regulatory partners.
- 5.5.11** Non-meat adulterants have been identified in preparations such as mince, with fat and connective tissues common adulterants in these products.



Case Study: Horse Meat

In April 2019, four men were found guilty of falsely labelling horsemeat as beef. These convictions stem from perhaps the most famous case of red meat adulteration, the 2013 European-wide ‘horse meat scandal’.

The actions of this criminal group, and others, resulted in millions of beef dishes being pulled from supermarket shelves across the UK, after it was discovered that they contained horsemeat despite being labelled as beef. The horsemeat was largely sourced from Romania and traded across the EU.

The former director of the meat processing company was sentenced to two years in jail, fined €100,000, and banned from working in the meat industry for two years.

Since 2013, four other individuals have been convicted of criminal activity related to the scandal, by courts in the UK and Spain.

- 5.5.12** Methods of adulteration identified in **olive oil** include the addition of other vegetable, nut or seed oils, as well as adding substances such as chlorophyll, or beta-carotene to low quality oil, to obtain a colour and consistency similar to extra-virgin olive oil. Authenticity issues relating to olive oil are a recurrent theme within food crime coverage globally and this will be a matter around which major industry partners are aware and vigilant.
- 5.5.13** There are agreed levels of annual sampling to monitor and enforce olive oil compliance. Sampling conducted by the Rural Payments Agency between January 2018 and July 2019, identified a 39% level of non-compliance in samples tested for compliance against the EU composition and labelling regulations for olive oil.⁴⁹ These failures are not a conclusive indicator of fraudulent activity but this is one potential cause of the compliance failures, alongside unintentional non-compliances and poor storage or transportation.

⁴⁹ Regulation (EEC) 2568/91; Regulation (EU) 29/2012; Regulation (EU) 1308/2013.

- 5.5.14** Very little intelligence has been noted which suggests that non-compliant olive oil on the UK market has been produced fraudulently. However, in September 2018, an investigation carried out by the Spanish Nature Protection Service (SEPRONA) identified an individual exporting olive oil to the UK labelled as extra virgin, but which contained up to 30% refined oils.⁵⁰ Whilst there is no indication that the UK importer was complicit in this activity, this case shows that UK businesses, and therefore consumers are not immune to food crime committed elsewhere within the global market.
- 5.5.15** It is highly likely that any adulteration of olive oil, occurs during the production stage, and a realistic possibility that those distributing the product later in the chain, particularly within legitimate supply routes, are unaware of the true nature of the product they are handling.
- 5.5.16** It is also a realistic possibility that continued pressures on European olive production, including the spread of the plant disease *Xylella fastidiosa*, will lead to an increase in adulterated olive oil production by those wishing to exploit price increases and supply shortages. As the UK is wholly reliant on imported oil to fulfil demand, an increase in the overall level of fraudulent product on the market increases the potential exposure of UK consumers.



Case Study – Operation ORO GIALLO

In May 2019, a joint operation by Europol, the Italian NAS Carabinieri, and the Tribunal of Darmstadt in Germany, led to 20 arrests. 150,000 litres of fraudulent olive oil was seized.⁵¹

The crime group had been mixing low quality sunflower oil with chlorophyll, beta-carotene and soya oil to give it the appearance of extra virgin olive oil. They were then mixing this with genuine olive oil and marketing it as extra virgin olive oil. In some instances, the bottles did not contain any olive oil, only the coloured sunflower oil. The adulteration activity took place in Italy, with the product sold in the German market, largely to restaurant owners. The group is estimated to have made over €8 million in profit per year.

- 5.5.17** During the reporting period, we have observed an increase in reporting related to the adulteration of **vodka** with industrial chemicals, including methanol and isopropyl alcohol. Reporting has also highlighted instances where branded vodka has been substituted with a lower priced vodka and marketed as the legitimate brand.
- 5.5.18** It is currently unknown whether this increase in reporting is attributed to more adulterated product being in circulation, or heightened awareness and detection.

⁵⁰ [Investigated for exporting 24,000 litres of refined olive oil as extra virgin](#), ABC News, October 2018

⁵¹ [150,000 litres of fake extra virgin olive oil seized from 'well-oiled' gang](#), Europol, May 2019

- 5.5.19** Methanol can be toxic to humans if consumed in sufficient volumes. It occurs naturally, at a low level, in most alcoholic beverages, however illicit drinks manufactured from industrial chemicals, will contain much higher levels of methanol. These beverages can cause blindness, and even death, depending on their exact methanol content.⁵²
- 5.5.20** Whilst these limited detections have been made in several different parts of the UK, the harm from this issue is far more apparent overseas. Spates of fatalities from adulterated alcohol consumption have been reported in Indonesia, the Dominican Republic and Malaysia.
- 5.5.21** Within a modest dataset referencing sampled vodka products, a very small number revealed the presence of industrial alcohols. This demonstrates a continued requirement for vigilance but these results from targeted activity should not be taken as representative of broader levels of non-compliance. Other samples from the reporting period identified products deficient in alcohol content.⁵³
- 5.5.22** It is assessed as highly likely that vodka is more susceptible to adulteration than other spirits, due to the relative ease with which illicit clear spirit can be made using industrial chemicals, compared to other spirit drinks.
- 5.5.23** In Scotland, minimum pricing on alcohol came into effect in May 2018. This has led to a change in the supply and demand dynamics of the alcohol market. It is not yet possible to comment on whether this has had any impact on the supply of counterfeit alcohol.
- 5.5.24** **Honey** is a product which is often recognised in food crime commentary as being vulnerable to fraud. A vast array of honey products are available to the consumer, from competitively-priced blended honeys to those which attract a premium price (for example monofloral or single origin honeys, and Mānuka honey from New Zealand).
- 5.5.25** Honey is a complex mixture and owing to significant variations present in honeys produced and sold around the world, analysis can be challenging. A number of different methodologies often need to be employed. UK authorities follow a weight of evidence approach for determining the addition of sugars in honey, including traceability checks, when assessing honey authenticity.
- 5.5.26** The volume of blended product required for the honey market and the availability of plausible adulterants such as sugar syrup, in addition to the price premium associated with higher value honey products, mean that it is a realistic possibility that adulterated or misrepresented honey is present within world honey supplies. Its presence within products available to UK consumers cannot be completely discounted.

⁵² [Defining a tolerable concentration of methanol in alcoholic drinks](#), Paine and Davan, 2001

⁵³ Under the Spirit Drinks Regulations 2008, vodka must have a minimum alcohol content of 37.5%.

- 5.5.27** Sampling carried out in 2018 and 2019 in countries including Canada⁵⁴, Australia⁵⁵ and the UK, by competent authorities and private entities, has explored the authenticity of some honey products, with possible concerns relating to adulteration with sugar syrup, declared quality, and declared origin. These themes are also apparent in UK industry sampling data for the period, although numbers of identified anomalies are small and following investigation, the majority of anomalies were not assessed to indicate an authenticity issue. Following review of data relating to the UK by competent authorities, and noting the weight of evidence approach, no followup action was required.
- 5.5.28** Testing methods for honey authenticity have attracted a variety of viewpoints and discussion from across the commercial, analytical and regulatory spheres. Reservations include the lack of comprehensive, reliable, open reference libraries to be used alongside some analytical methods. This and other issues were the subject of a workshop in the UK between scientists, industry and regulators in autumn 2019⁵⁶ and several strands of onward activity are planned as a result of the workshop. Consideration of methods is also noted in the responses of the Canadian and Australian authorities to their sampling data.
- 5.5.29** Other examples of quantitative adulteration observed in the reporting period are in the **herb and spice** sector, and include the adulteration of saffron and green leafy herbs. The majority of reporting relating to this sector relates to activities taking place overseas with little or no confirmed exposure to UK consumers.



Case Study: Saffron adulteration

Sampling data received by the NFCU in 2018 identified issues with saffron being marketed in the UK as high quality Spanish saffron, which contained other plant fibres. The adulterated saffron had been sold by retailers in the south of England.

This information was referred to the Spanish authorities, who subsequently uncovered a clandestine factory who were mixing other plant material with saffron. This led to the seizure of 90kg of adulterated saffron worth approximately £750,000.⁵⁷

- 5.5.30** An industry sampling dataset covering analyses conducted between October 2018 and September 2019 identified only five herb and spice samples showing potential levels of adulteration with extraneous plant material. A further six samples tested

⁵⁴ [Enhanced honey authenticity surveillance \(2018 to 2019\)](#), Canadian Food Inspection Agency (CFIA), 2019

⁵⁵ [Honey investigation concludes due to testing uncertainty](#), Australian Competition and Consumer Commission (ACCC), November 2018

⁵⁶ [Honey Authenticity Seminar \(2019\) Report](#), Gov.UK, April 2020

⁵⁷ [Food Fraud: adulteration saffron sparks international probe](#), Food Manufacture, August 2019

positive for the adulteration of frozen garlic puree with water, most likely to bulk up the frozen product.

- 5.5.31** These possible non-compliances represented just 0.75% of all herb and spice samples tested for authenticity issues within this industry dataset.⁵⁸
- 5.5.32** It is highly likely that preventative measures put in place by the majority of UK herb and spice importers have been successful in reducing the risk to the UK market. If these products are present in the UK, it is likely they entered the UK as personal imports or were sold through smaller convenience retailers with lower-scale supply chains.
- 5.5.33** A 2019, European Commission-led control plan explored herb and spice authenticity. The results from this plan will be useful comparison to domestic data once they are published later in 2020.
- 5.5.34** Testing by both local authorities and industry, has identified isolated cases of the adulteration of **basmati rice** with other varieties. It is likely that this will remain an issue due to recent changes to regulations relating to permitted pesticide residue levels, which might affect the volume of supply of correct basmati species, and vigilance will be maintained.
- 5.5.35** In 2019, sampling carried out on products sold in the UK and labelled as containing **buffalo mozzarella** found that some contained up to 30% cows' milk, a more broadly available ingredient. True buffalo mozzarella only contains buffalo milk, and as such is regarded as a specialist product, commanding a higher price.
- 5.5.36** It is likely that adulteration of this nature is occurring in other cheese and dairy products made from milk other than cows' milk. Broader evidence of this, however, is not held, but sampling by Bulgarian authorities under Operation OPSON IX did identify dairy products adulterated with starch.
- 5.5.37** An issue identified in previous reporting was the adulteration of **nut powders**, particularly the addition of peanut powder to almond powder. A number of deaths have occurred in the UK as a result of the undeclared use of peanut powder in takeaway meals, and whilst not all were a result of fraudulent adulteration, these deaths highlight the high level of risk that can be associated with food crime, particularly where food allergens are involved.
- 5.5.38** Available sampling data for the reporting period does not indicate a high frequency of nut powder adulteration and a very low level of intelligence has been received in relation to this. It is a realistic possibility that this is in part due to the increased awareness of the profound consequences of such activity.
- 5.5.39** Recent recalls of pesto sauces linked to peanut contamination in the cashew nut content of the product demonstrate the continued relevance of this theme within international supply chains, as well in more localised food service.

⁵⁸ 11 of 1476 tests of herb and spice samples noted within this dataset.

- 5.5.40** During the reporting period, targeted action to uncover potential fraudulent practices in ground **coffee** labelled as 100% Arabica was carried out by 14 European countries, as part of Operation OPSON VIII. Most ground coffee is of the Arabica variety, however, Robusta coffee is 30–50% cheaper, making coffee adulteration financially appealing.
- 5.5.41** Under 3% of the 400+ samples showed adulteration, but we assess that continued vigilance is necessary in this area; it is almost certain that the scale of this practice will fluctuate in direct correlation to pricing of Arabica beans. Sampling in Scotland as part of the operation did not identify any misrepresentation of coffee.

Qualitative Adulteration

- 5.5.42** Qualitative adulteration aims to improve the appearance of a product, in order to imply a higher quality and secure a more favourable price. This has been observed in a range of products, including tuna, and palm oil.
- 5.5.43** Fraudulent activity across the global **tuna** supply chain remains an ongoing concern, although the execution of this practice has not been noted in the UK.
- 5.5.44** The practice involves the illegal treatment of canning grade tuna to appear to be fresh grade product. Common methodologies have included the injection of beetroot juice or nitrates/nitrites, and treatment with carbon monoxide. These give the fish the red colouration associated with fresh tuna, masking the brown colouration which occurs over time.
- 5.5.45** A significant financial motivation for these practices stems from significant price differentials, with fresh tuna selling for double the price of canning grade tuna.
- 5.5.46** These practices present health risks, masking the build-up of histamines in the product which can lead to scombroidosis, with symptoms similar to an allergic reaction.
- 5.5.47** Under Operation OPSON VII in early 2018, a number of European countries, including the UK, participated in co-ordinated activity looking at the production and distribution of illegally treated tuna. Sampling undertaken by local authorities identified the presence of adulterated product in some areas of the UK market, but no adulteration activity taking place.
- 5.5.48** The findings from all activity undertaken were compiled and assessed by the SFCIU, and have since been used to strengthen supply chains, and target enforcement activity across the EU. The European Commission have taken steps to tighten regulations around the levels of additives, such as antioxidants, permitted for use in food.



Case Study: Operation ATUNALI

In August 2018, a Spanish-led operation in collaboration with Europol, the European Commission, and EU Member States, led to the seizure of 45 tonnes of illegally treated tuna.

This fish was canning grade tuna which had been treated with vegetable extracts containing high levels of nitrites. This had masked the browning caused by prior freezing, and have the fish a red colour, often associated with freshness.

Some of the fish seized had little to no traceability, and some was later found to have been caught by unlicensed fishing vessels, without adequate freezing capability to catch fresh tuna.

- 5.5.49** Activity by law enforcement bodies has disrupted criminality in this area. However, some criminal groups involved in this activity have changed their adulteration methods as a result. This includes an increase in treatment of fish with carbon monoxide.
- 5.5.50** It is likely that there is still adulterated tuna on the EU market, either through continued fraudulent processing within the EU, or through the importation of adulterated product from third countries, and a realistic possibility that illegally treated tuna is present in the UK market, however the scale of this is currently unknown.
- 5.5.51** Even where some form of treatment is acknowledged on product labelling, for example in a wholesale fish market, there remains the risk that the product status is not communicated to later consumers, for example when prepared in a food service environment.
- 5.5.52** Similar practices have not been noted regarding white fish in the UK, but are possible. In November 2018 Italian authorities seized six tonnes of cod along with large quantities of lime, used to bleach the fillets to give an appearance of freshness.
- 5.5.53** Red **palm oil** products adulterated with banned Sudan dyes are identified as a continuing issue within the reporting period, with adulterated product imported from Ghana to the UK, but not on a significant scale.
- 5.5.54** Red palm oil is naturally red, due to the high beta carotene content. Low grade palm oil adulterated with Sudan dyes has the same desirable red colour, even after cooking.
- 5.5.55** Small quantities of such product have been imported by private individuals in the UK, but it is unknown whether these were intended for personal use or onward sale. Such imports are commonly misdeclared to evade checks in place to identify adulterated product.

Substitution

- 5.5.56** Substitution is the wholesale replacement of one product or ingredient for another. Determining whether a replacement is partial (adulteration) or entire (substitution) can be challenging, particularly in composite or processed products.
- 5.5.57** These two crime techniques often seem to occur on a sliding scale, and in some instances can fluctuate between adulteration and substitution depending on market pressures, and therefore is different depending on the section of the food market.
- 5.5.58** During the reporting period, substitution of white fish species was intermittently identified in public sector sampling. The data reviewed contained a targeted survey under Operation OPSON VIII, performed in Northern Ireland, found that two of 27 cod samples procured from takeaways were of the incorrect species. More broadly, haddock was noted as a common replacement species but a variety of substitutions have been noted, including pangasius, coley and whiting.
- 5.5.59** Industry sampling data shows lower levels of substitution than local authority sampling, which is likely indicative of the types of products and establishments targeted for sampling in each dataset.
- 5.5.60** Supply issues within the **vanilla** sector have been noted as a concern but have not led to the broad identification of authenticity issues within the UK market.
- 5.5.61** Global shortages have caused the price of vanilla to soar during this reporting period. In early 2018, vanilla prices reached £463 a kilo, declining to £397 in June 2018.⁵⁹ This is in stark contrast to five years ago, when the price of 1kg of vanilla was £15. In 2018, some artisan ice cream producers announced that they were ceasing production of vanilla ice cream until such time as the price decreased.
- 5.5.62** Despite this, substitution of natural vanilla with synthetic vanillin within the UK market has not featured within intelligence held by the Units during the reporting period.
- 5.5.63** Similarly, vulnerabilities in the **butter** and cream sectors, owing to supply issues, have been noted in market commentary but have not manifested in reported non-compliances.
- 5.5.64** One high street bakery chain did publicly declare that they had replaced butter with other fats in their puff pastry products to cope with rising prices,⁶⁰ and an Albanian investigation in May 2019 identified fraudulent sale of 47 tonnes of Ukrainian margarine as German butter. Consequently, this remains a sensible area for vigilance in relation to future supply and demand factors.

⁵⁹ [Vanilla price rise proves chilling for ice-cream makers](#), BBC News, May 2018

⁶⁰ [Cash-starved Patisserie Valerie 'stopped using butter in puff pastry'](#), The Guardian, June 2019

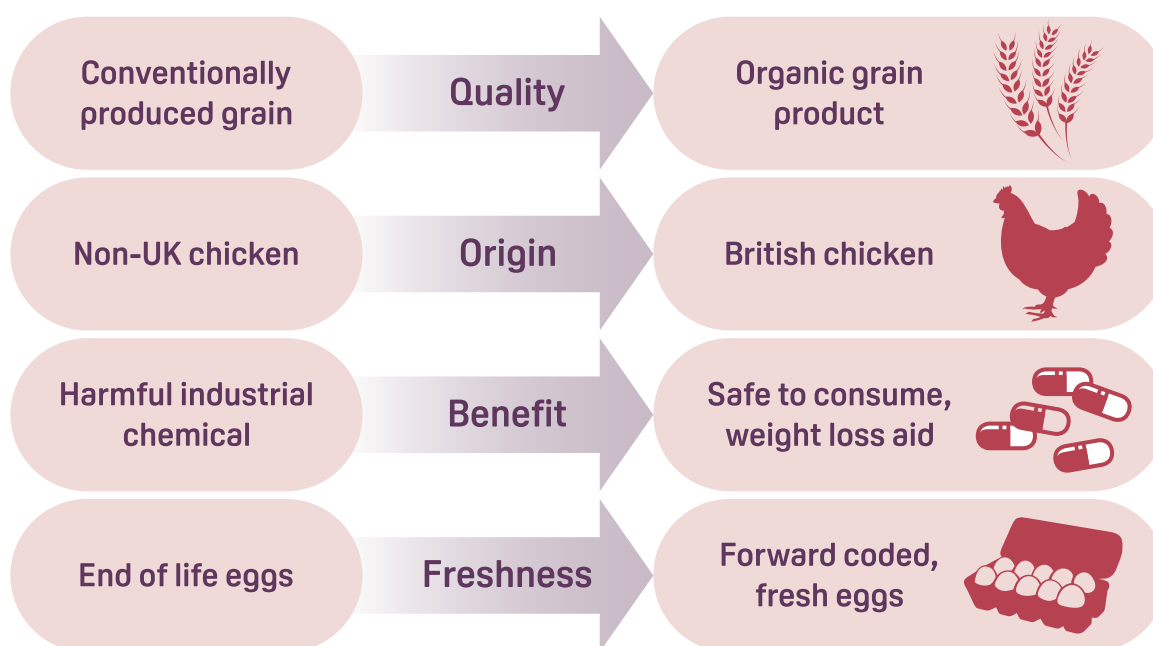
5.6 Misrepresentation



Misrepresentation: the marketing or labelling of a product so as to inaccurately portray its quality, safety, benefit, origin or freshness.

5.6.1 Misrepresentation within the food chain can largely be categorised into four main areas, the misrepresentation of either quality, benefit, origin or freshness.

Figure 5: Examples of the main types of misrepresentation



Original product → Misrepresentation → Marketed product

- 5.6.2** The Units have identified an increase in reporting related to misrepresentation, with the most significant emerging issue being the misrepresentation of products as having intangible but desirable qualities, such as ethical status, or high animal welfare.
- 5.6.3** Misrepresentation occurs most commonly where there is little ability on the part of the customer to identify whether a statement or claim made on the packing of a product, or as a marketing claim relating to that product, is genuine and accurate.
- 5.6.4** It is almost certain that where an act of misrepresentation is carried out, there will be an act of document fraud associated with it, whether associated with product labelling or with documents used to support authenticity claims. This document fraud is used to legitimise the misrepresented product and disguise the fraudulent activity.

Misrepresentation of Quality

- 5.6.5** Misrepresentation of quality occurs across many sectors of the food industry. Products are particularly vulnerable where the misrepresentation is hard to detect. This could be for a number of reasons including difficulty verifying the declared qualities of a product, a lack of reliable testing methods to verify them, or marked similarities with a genuine product.
- 5.6.6** A significant proportion of reporting in this area is related to activity taking place overseas. Global supply chains, however, mean that these issues may still be present in products on sale to UK consumers,
- 5.6.7** Products featuring prominently in reporting relating to misrepresentation of quality include organic production, prosecco, vodka and shellfish. These are issues which have been identified as impacting the UK market, but the fraud may have taken place elsewhere.
- 5.6.8** Products which have a premium status – defined in this assessment as those which are part of a legally defined, accredited scheme, or method or location of production – are particularly vulnerable to misrepresentation of quality.
- 5.6.9** The premium status of these products is typically indicated through the use of an additional descriptor or logo on the packaging. Examples of premium status include organic certification, industry assurance schemes, and the European Union quality schemes.
- 5.6.10** The price mark-up associated with these product characteristics, or alternatively the market access which they enable, makes such characteristics particularly vulnerable to misrepresented lower quality products purporting to bear this status.
- 5.6.11** **Organic** agriculture aims to produce food and feed using only natural substances and processes. Misrepresentation of organic produce has been identified within the reporting period, although it is of note that the large-scale frauds identified have all taken place overseas.
- 5.6.12** The scale on which fraudulent organic products enter the UK market is not known, but it is assessed as likely that there is an impact of some form. Little intelligence is held relating to UK-based organic production, or fraudulent sales of organic product in the UK.

Organic certification

Organic farmers, processors, distributors and retailers must be registered, inspected and approved by a recognised certification body in order to ensure that the relevant standards are maintained throughout the supply chain. There are eight organic certification bodies within the UK, and in excess of 250 bodies approved by the European Commission to certify products produced in, or imported into, the EU.⁶¹

Products that are certified to the EU organic standard can use, on their packaging, the EU Green Leaf organic symbol or the symbol of their certification body. Packaging must also display the identifying code of the certifier to show that it has been duly certified as organic.

5.6.13 As part of Operation OPSON VIII, EU member states focused on identifying fraudulent organic products being produced, sold or imported into the EU market. This included some organic shipments relating to the UK.

5.6.14 Successful operational outcomes around organic products have included:

- an Italian-Serbian investigation into an OCG selling juice, jam, and canned foods labelled as organic, made from decomposed apples.⁶²
- the seizure in Spain of 470 tonnes of vegetables marketed as organic, but which had been sourced from suppliers who only farmed conventionally.⁶³ This resulted in the arrest of three people for fraud offences.
- also in Spain, authorities uncovered the fraudulent sale of conventional eggs as organic, resulting in the seizure of over 45,000 eggs, and six arrests.



Case Study – Organic Fraud – USA

In August 2019, a group of farmers in the US were convicted of fraudulently selling conventional maize and soybean as organic animal feed. It is estimated that the group made more than \$120 million from the scheme, and that their produce accounted for up to 7% of organic corn, and 8% of organic soybeans grown in the US in 2016.

The product was sold to organic livestock farmers, meaning that the resultant meat, dairy and egg products did not conform to the organic standard. The scale of this fraud means that a significant number of US consumers will have unwittingly paid a premium for product which did not meet their expectations of quality.

⁶¹ [Approved UK organic control bodies](#), GOV.UK, 2018

⁶² [Eurojust helps reveal fake organic food fraud](#), EUROJUST, July 2019

⁶³ [The Civil Guard seizes 300 tons and 39,000 litres of counterfeit food and drinks](#), Guardia Civil, June 2019

- 5.6.15** Due to the international nature of the organic sector, it can be complex to verify the true origin and certification status of a product when it reaches its final destination. This is compounded by challenges with verifying the organic status of a product through scientific analysis, resulting in the need to follow a long and complex paper trail to verify status.
- 5.6.16** **European Union quality schemes** protect a range of specialist regional, or traditional products produced within EU Member States. The majority of these protections are linked to geographic origin, or method of production.
- 5.6.17** The prioritisation of the misrepresentation of Protected Designation of Origin (PDO) products as an issue may vary between countries depending on the number of products they have registered, and the economic importance of these products. Within the UK, over 40% of PDO and Protected Geographic Indication (PGI) products originate from Wales, Scotland and Northern Ireland.
- 5.6.18** It is likely that some products are being fraudulently marketed as holding such a status, given the higher price and market share they can command compared to similar products. This has been noted with regards to Italian sparkling wine and ham products.
- 5.6.19** Prosecco holds PDO status within the EU and is recognised under the domestic Italian designation of controlled origin (DOC) and designation of controlled origin guaranteed (DOCG) schemes.
- 5.6.20** Reporting has identified bottles of sparkling wine illegally labelled as Prosecco (originating from areas outside of the Prosecco region, including some produced outside Italy) and also the marketing, as Prosecco, of sparkling wine ‘on tap’ or from a keg at a number of businesses across the UK. Wine sold in this manner cannot be marketed as Prosecco.
- 5.6.21** It is likely that its popularity makes Prosecco more vulnerable to fraudulent activity of this nature than other sparkling wine products.
- 5.6.22** Under Operation OPSON IX in 2019-20, 210 tonnes of cheese were seized which did not meet the conditions of the protected geographic designation it was to be labelled with⁶⁴.
- 5.6.23** Information has been received regarding several instances of the incorrect advertisement of protected designation Parma ham by UK sellers during this period.
- 5.6.24** Within the UK, there are a number of recognised **quality assurance schemes** for meat, dairy, eggs and animal feed. These schemes are industry led, and promote high animal welfare and production standards.
- 5.6.25** Producers who wish to be recognised under these schemes must pay a members fee, and are subject to regular audits to ensure that they meet required standards.

⁶⁴ [OPSON IX press release](#), Europol

- 5.6.26** Consumers may use the labelling from these schemes to identify British origin products and assign a higher quality to products which bear these markers. It is likely that the significance placed on these identifying markers increases their attractiveness for fraudsters.
- 5.6.27** The level of fraudulently labelled product claiming to be produced within the standards of assurance schemes is not known, however this has featured within reporting to the Units. The Units continue to enhance relationships with the bodies responsible for these assurance schemes to improve and widen intelligence flows to regulators.
- 5.6.28** The misrepresentation of quality of **shellfish** has been identified during the reporting period, predominantly in relation to illegal harvests. This is closely linked to the creation of fraudulent documentation used to hide the true quality of the product.
- 5.6.29** This takes place through the misrepresentation of product from Class B or C beds, or prohibited areas, as a higher class. Declaring as a higher class reduces processing requirements for the product, lowering costs and facilitating sale at a higher price. However the product may still contain harmful toxins, raising consumer safety concerns.
- 5.6.30** **Spirits**, particularly vodka, are vulnerable to misrepresentation of quality, with reporting received in relation to multiple instances of counterfeit product being marketed.
- 5.6.31** The UK wine and spirit industry generates around £49bn annually in economic activity, with £10.6bn in sales of wine and £11.1bn in sales of spirits in 2018.⁶⁵ In the UK, 81% of adults who consume alcohol, drink wine, and 79% drink spirits. As a result, the alcohol industry is a lucrative target for criminal activity.
- 5.6.32** In some instances, counterfeit vodka has been found to be harmful to health due to levels of methanol and other industrial chemicals, as referred to earlier in this chapter.
- 5.6.33** Reporting in June 2019 highlighted an issue with lower quality **wine** being placed in counterfeit bottles bearing the name of a popular and familiar brand. It is likely that counterfeit wine is circulating on the consumer market in the UK on a broader basis than this one confirmed case, and the earlier example of Prosecco.
- 5.6.34** Recent operational activity co-ordinated by the Units has targeted the presence of illicit alcohol in UK marketplaces under Operation OPSON IX. Across thirteen participating European countries, 1.2 million litres of alcoholic beverages were seized⁶⁶.

Misrepresentation of Origin

- 5.6.35** Misrepresentation of origin encompasses falsely labelling a food as coming from a specific country or region, or as being locally sourced. This methodology is used due to a number of factors, including higher prices for products of that origin, to evade import controls, or to make a product appear more desirable, or of higher quality.

⁶⁵ [Facts and Figures](#), Wine and Spirits Trade Association (WSTA)

⁶⁶ [OPSON IX press release](#), Europol

- 5.6.36** Making choices about where your food comes from is a key feature of current consumer behaviours, and as such, desirable origins make for a very marketable status. The misrepresentation of British origin is a noted theme here. FSA research⁶⁷ shows a substantial difference in the declared confidence of consumers in the quality of food from the UK and Ireland, compared to that produced abroad.
- 5.6.37** It is assessed as almost certain that misrepresentation of origin is occurring amongst a variety of food types. Foods of note include eggs and poultry, although misrepresentation of origin is noted across other food areas too.
- 5.6.38** Reported incidences include non-UK origin poultry being relabelled and sold as British or marketed as locally sourced and free range.



Case Study – Meat misrepresentation

A Warwickshire businessman was convicted in 2019 of labelling and marketing imported meat and poultry as British and frozen products as fresh, as well as falsely claiming that products were from premium status or high-welfare livestock.

Following the successful Trading Standards prosecution, supported in its early stages by NFCU, the offender received a custodial sentence of nearly three years alongside a fine, payment of costs and asset confiscation collectively totalling nearly half a million pounds.

- 5.6.39** Intelligence has historically indicated misrepresentation of origin for meat products (at varying scales); more recent industry sampling found 3.7% of red meat and poultry samples exhibiting abnormal profiles when compared to a reference dataset (and requiring further investigation) although testing is indicative rather than conclusive.⁶⁸
- 5.6.40** We assess that issues of this nature may be more commonly identified in smaller businesses, as opposed to major producers and suppliers who have much greater visibility of, and control over, their supply chains.
- 5.6.41** Intelligence identifies instances of non-UK eggs being marketed as British. In one instance, the eggs were from battery hens but were marketed as organic (thereby also incorporating misrepresentation of quality).

Misrepresentation of Benefit and/or Safety

- 5.6.42** Misrepresentation of benefit and/or safety involves falsely claiming that a product has an advantageous effect, or that it is safe for human consumption. These misrepresentations tend to be targeted towards specific consumer audiences.

⁶⁷ [FSA Public Attitudes Tracker, Wave 19 Report](#), Food Standards Agency (FSA), February 2020

⁶⁸ 10 out of 268 samples tested for geographic origin within this dataset

- 5.6.43** Non-foods are substances that have no place in the human diet yet are marketed as a food or supplement. Some claim specific benefits, for example supporting weight loss.
- 5.6.44** **2,4-Dinitrophenol (DNP)** is a dangerous non-food, marketed as a diet pill. It has significant adverse effects, causing at least 31 deaths in the UK since 2007, including four in 2019 and one in the first quarter of 2020.⁶⁹ The chemical has explosive properties and although sometimes marketed as suitable for some agricultural applications, is not authorised for these purposes in the UK.
- 5.6.45** DNP can appeal to specific consumer groups, including but not limited to bodybuilders and those with body dysmorphia issues. It is marketed as a rapid and effective weight loss aid, often with no mention of the severely detrimental health impact which can result from consuming the product.
- 5.6.46** The Units have worked extensively since 2015 to target the sale of DNP, particularly with regards to online availability, and to hold to account those responsible. This has included removing over 350 online listings, including websites, marketplace listings and social media profiles. The identification and removal of further listings remains a priority. The Units are working with partners across the Government and enforcement landscape, both in Whitehall and in the Scottish Government, to seek to ensure that this issue is tackled collaboratively and under the most appropriate legislative framework.

Case Study: Operation OPSON VIII – DNP

Activity by ten EU Member States and co-ordinated by the Units, as part of Operation OPSON VIII, proactively targeted the sale and marketing of DNP. The results included:

- **the removal** of 75 online listings of DNP
- **the seizure** of DNP equivalent to over 50,000 capsules, and
- **health messaging** on television, social media and food safety agency websites across Europe.



- 5.6.47** It is almost certain that DNP is still circulating the consumer market in the UK, and that sellers will continue to market their product towards certain groups of consumers.
- 5.6.48** A number of criminal proceedings relating to DNP supply, supported by or initiated on the basis of intelligence from the Units, are ongoing or recently concluded in the United States. These relate to sellers linked to transactions known to be made to UK consumers and some custodial sentences have resulted.

⁶⁹ Data compiled by National Poisons Information Service, 30 June 2020

- 5.6.49 Miracle Mineral Solution (MMS)**, a sodium chlorite solution, is a non-food which is marketed as a health cure, with some sellers claiming that it can cure conditions such as autism, malaria or Lyme disease.
- 5.6.50** Online traders promoting and selling MMS to UK consumers continue to be identified, and the Units take action to impede their activity. It is almost certain, however, that this trade will continue to be observed, potentially in ways which are oblique or covert about the intended use of the product.
- 5.6.51 Food supplements** are another strong theme within the misrepresentation of benefit and/or safety. This often involves the inclusion of unapproved novel foods in products.⁷⁰ Some of these novel foods may be close in nature to substances whose presence in food is unauthorised owing to health issues, for example in terms of analogues of the unauthorised medicine 1,3-di-methylamylamine (DMAA).
- 5.6.52** Sampling by local authorities has identified high levels of non-compliance with regards to the labelling of food supplement products. These range from prohibited or inaccurate health and nutrition claims to the inappropriate use of the term ‘natural’. Not all of these non-compliances would fall within the definition of food crime.
- 5.6.53** Products associated with fat-burning claims are prominent. Specific active ingredients of interest include CBD and selective androgen receptor modulators (SARMs).
- 5.6.54** The lucrative market for food supplements may incentivise some within the sector to misrepresent the benefits or ingredients of their products, or to sell products likely to appeal to some consumers but which do not comply with UK legislation. The ease of informal entry into this sector, and the fact that supplements can be shipped globally through the postal system, makes this an area of note.
- 5.6.55** It is highly likely that other non-food substances are present in the consumer market. These substances could have potentially harmful side effects yet may only come to light as a result of serious injury or death linked to their consumption. We are vigilant to this threat and also note positive exchanges of industry intelligence with regards to supplements.

Misrepresentation of Freshness

- 5.6.56** The misrepresentation of date in relation to food involves the false declaration of the freshness or durability date of a product. This practice can range from low-level attempts to deceive, to more complex frauds requiring planning, with wider-reaching impact.
- 5.6.57** The **extension of durability dates** can occur at all stages of the supply chain, with varying degrees of scale and deception. It is almost certain to be driven by financial incentives, but motivation may depend on whether the crime is an expedient

⁷⁰ Novel foods are specific types of foods that do not have a history of consumption, in the EU, before May 1997.

response to short-term stock management issues or is focused and sustained activity with a level of complicity.

- 5.6.58** Activity in this area focuses on products where the level of freshness will go unnoticed in the short term, or where there is limited testing opportunity or capability to determine date extension. Vulnerable commodities include red meat, fish, poultry and eggs.
- 5.6.59** Methodologies utilised by fraudsters to falsely declare the freshness or date of a product can vary from simple label changes to complex levels of deception, such as physically altering dates on labelling, masking product with marinades or additives; or freezing product before later defrosting for sale as 'fresh'. Issues also include mixing product past its durability date with fresh and also use of chemicals or additional ingredients to change the appearance of the food, a form of qualitative adulteration.
- 5.6.60** The **misrepresentation of kill dates** has been identified, with FBOs changing kill dates to make meat seem fresher. The re-dating of poultry carcasses and subsequent processing for mechanically separated meat (MSM) has also been identified.
- 5.6.61** Reporting relating to the freshness of eggs continues, with the age of eggs being masked by **'forward coding'** the product. Shelf-life is extended through false 'laid' or 'processed' dates being applied to eggs when they are stamped.
- 5.6.62** The true scale of this fraud in the UK remains unknown, but it is likely that some forward coded eggs are present in the market. Forward coded eggs also pose potential consumer health concerns, although the scale of any resulting illness is unknown.



Case Study – Date extension

In March 2018, the Belgian authorities reported findings⁷¹ of out-of-date meat being placed back into the food chain. A meat processing plant and cold store were found to be removing labels on frozen meat products, including minced meat and oxtail, and replacing them with labels with current dates. The meat was then distributed to retailers across Belgium. The Belgian Federal Agency for the Safety of the Food Chain (FASFC) initiated a recall of all affected product, as well as withdrawing the company's approval.

⁷¹ [VEVIBA Consumer FAQ](#), Federal Agency for Food Safety (FAVV), March 2018





5.7 Document Fraud


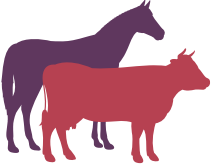



Document Fraud: the use of false or misappropriated documents to sell, market or otherwise vouch for a fraudulent or substandard product.

- 5.7.1** Fraudulent documentation can be used to support varied practices within food crime, particularly misrepresentation. The motivation to commit document fraud will undoubtedly be financial, whether to boost profit or minimise feared losses.
- 5.7.2** Food criminals make use of both fraudulently produced paperwork and misused legitimate documentation. It is highly likely to occur where a commodity might otherwise have no value, for example an unidentified animal, or landed fish which are undersize or over quota.
- 5.7.3** Document fraud is principally used to cloak the true origin of a product (either for direct financial gain, or to access a closed export market), portray an unlawful product as legitimate and safe, or make a product appear to be of a higher quality. The level of sophistication varies. Basic checks are often able to identify fake or falsely applied approval codes; targeted audits might be required to identify criminality within the organic sector.
- 5.7.4** Reporting highlights issues relating to livestock passports, import/export certificates, health certification, customs declarations, approval codes and non-governmental certification.
- 5.7.5** Understanding the scale of document fraud within the supply chain is an ongoing challenge. Continued work to develop information from industry experts will be key to having a greater understanding of the exact nature and scale of this activity. This partnership will help with developing preventative measures to mitigate this risk.
- 5.7.6** The UK continues to be vulnerable to attempted imports of food products where fake or falsified documents have been used to deceive authorities to their true nature. Reporting has identified products presented with false health certificates, or labelled with fake approval numbers, being stopped at the UK border. The nature of cross-border trade – involving a high volume, quick turnaround inspection process – presents a window of criminal opportunity.

5.7.7 The following table lists some key forms of document fraud and our associated assessment.

Document	Intended benefit of use	Assessment
Health certificates 	Bypass pre-export health checks and/or EU import controls on imported shipments.	Fraudulent health certificates have been identified in shipments of fruit and vegetables imported from India, which would not pass health checks.
Customs declarations 	Import of restricted and/or prohibited food products by falsifying customs declarations.	<p>False or inaccurate customs declarations have been used in attempts to import prohibited goods from Nigeria and Ghana, including bushmeat and adulterated palm oil. They have also been used to facilitate the illegal importation of veterinary medicines and antibiotics.</p> <p>It is also highly likely that DNP enters the UK through intentional misdeclaration of contents on customs forms, whether on postal packets or in more wholesale quantities.</p>
Export health certificates 	Misrepresentation of non-UK products as originating from the UK, or EU products as from an alternative country, to increase the value of a product or hide its origin.	<p>False export health certificates have been identified by authorities in Asia and Europe.</p> <p>False certificates have also been identified in the Russian Federation to disguise the EU origin of agricultural products owing to the ban on the transfer of these products to Russia.</p> <p>False certificates have also been used to facilitate the export of ruminant processed animal protein to third countries by stating an EU destination.</p>
Approval numbers 	Falsely conferring standards of hygiene and safety onto products.	Identified across several sectors including the removal of original health marks on poultry, the use of fraudulent approval numbers by unapproved freezer vessels in fisheries, and the misrepresentation of floor eggs as higher quality perch products in the egg sector.

Document	Intended benefit of use	Assessment
Catch/landing certificates 	Facilitate entry of illegally harvested and/or falsely classified fish or shellfish into legitimate supply chains.	Fraudulent documentation has been identified in multiple coastal locations across the UK, potentially allowing unsafe or overfished product to enter the market.
False or reassigned animal identification 	Facilitate illegal movement of restricted, stolen or unidentified livestock, and entry of stolen and/or unfit livestock into legitimate supply chains.	<p>False, doctored or reassigned horse passports have continued to be identified with horses presented for slaughter in England. This includes the use of multiple microchips to obscure original microchip identities of horses. This has been noted in the Republic of Ireland and been subject to operational activity in 2019 including as part of Operation OPSON IX.</p> <p>This poses potential human health risks as the use of falsified paperwork may be used to hide treatment with veterinary medicines such as phenylbutazone, but these health risks are assessed to be very small.</p> <p>It is highly likely that stolen cattle are given new identities in order to enter legitimate abattoirs (or are slaughtered illegally and enter the food chain through the use of other fraudulent documentation).</p>
Industry and laboratory certification 	Increase the value and market price of products or confer a safety or authenticity status based on laboratory analysis.	<p>The Units have received reporting around fraudulent farm assurance and organic certification labelling. The fraudulent use of halal certification, and free-range labelling has also been identified.</p> <p>There has been very limited reporting of false certificates of laboratory analysis.</p>

6. The Future of Food Crime

- 6.1.1** Food crime can thrive when the established supply and demand relationship changes faster than the appropriate controls can be modified and applied. It is our assessment that in the next 36 months, the scale and pace of changes in supply and demand will increase. Developments in the political, environmental, societal, technological, legal and economic landscapes may provide greater opportunity for food crime to occur but could also enhance our ability to identify and combat the threat.
- 6.1.2** Regardless of the outcome of the current UK/EU trade talks, the food landscape will almost certainly change in some way and with it potential new opportunities for food crime. This could stem, for example, from new trading relationships introducing less familiar countries of origin into supply chains.
- 6.1.3** Arrangements under the Northern Ireland Protocol, relating to the nation's continued presence in EU and United Kingdom markets, will also be noteworthy in terms of impacts on product movements and commercial behaviours.
- 6.1.4** The current economic downturn is highly likely to have an impact on some consumer and business behaviours. For businesses, the motivation to commit fraud would increase, as other opportunities to make money reduce. From a consumer perspective, food bills become more substantial as a percentage of household income when income decreases. In these situations, households may make different consumer choices. These factors could lead to a larger potential victim base for those forms of food crime which relate to the entry of poor quality food into the market for sale at low prices.
- 6.1.5** Conversely, the rising purchasing power of the global middle class has been driving demand for luxury foods, that will increasingly outstrip supply. Even in harder times, it could still make premium foods, such as those holding a protected food name or cherished origin, and perhaps some preferred protein sources (such as pork in the eyes of Chinese consumers), an attractive target for fraudulent trade – particularly if practical limitations on volumes of production arise.
- 6.1.6** Social media use in the UK is likely to increase in the coming years and will have a greater impact on consumer behaviour. Social media influence will manifest in rapid and widespread changes in consumer preference, which are increasingly international.
- 6.1.7** We perceive a decrease in the length of time it takes new products to become popular at scale, especially within more novel foods. This is in part due to social media amplification. If the trend continues, reacting to food crime issues with these products will be more difficult.

- 6.1.8** On the current trajectory, more food and drink will be sold direct to consumers through social media, exacerbating existing concerns around this marketplace.
- 6.1.9** Future changes in the UK's population demographic will affect both the supply and demand of food. Such shifts could result in different demands for community specific food products, not traditionally consumed within the UK. Where such products are not permitted in the UK, an increase in non-conventional and illicit supply routes should be expected.
- 6.1.10** It is already possible to buy food on the dark web, and a general rise of dark web use for more commonplace purposes, would likely include consumers buying more products on the dark web. We still assess, however, that food purchases through dark web sites would be focused on illegal foods, novel foods, harmful non-foods and supplements – products on or beyond the threshold of legality and for which a discreet sales platform is desirable (outweighing the benefits of enhanced consumer visibility on the surface internet).
- 6.1.11** Future scientific developments in food authenticity testing are likely to increase the capability to detect fraud across a wide range of food types. The value of these developments will be dependent on how promptly and effectively these can be deployed reliably and at scale, and on their inclusion or otherwise into any suite of accepted international standards.
- 6.1.12** We predict that blockchain technology⁷² will continue to be adopted within the food industry to increase confidence in food authenticity. Increasing consumer expectations of supply chain transparency should encourage the movement of food businesses towards openness around traceability.
- 6.1.13** Though blockchain technology offers the potential to increase the UK's resilience to food fraud in sectors where uptake is strong, the system does not address the root cause of potential fraud. Also, if some blockchain applications are successful in assuring traceability, criminal activity could be displaced to other sectors or food supply chains. The cost of implementing end-to-end blockchain may be cost prohibitive to some sectors.
- 6.1.14** Measures will also be taken to strengthen a joined-up approach to food fraud internationally, including within the European Union.
- 6.1.15** Whilst the UK is no longer an EU Member State, it is highly likely that the EU will remain a key trading partner for food commodities. Increased, co-ordinated activity looking to better understand and tackle food crime issues within the EU-27 will therefore be beneficial to the UK, and other countries who trade with the EU.

⁷² Blockchain is a list of records, called blocks, that are linked using cryptography. It is a secure method of linking data together.

- 6.1.16** The European Council plan to adopt an approach to improve cross-sectorial cooperation and raise awareness amongst consumers, following a clear direction from the incoming President⁷³ regarding food fraud.
- 6.1.17** We note the recent requirement that all countries subject to the revised EU Official Control Regulations must be able to securely handle reports of infringements and protect the identity and rights of those making reports. This may result in more food crime reporting to EU member states, enriching intelligence pictures and potentially identifying issues relevant to the UK.
- 6.1.18** The activity of the EU Food Fraud Network is also anticipated to continue to provide a valuable forum to EU member states to discuss food fraud, agree shared plans of activity and consider strategic issues. This will be complemented by a dedicated food fraud working group under the auspices of the European Heads of Food Safety Agencies framework.
- 6.1.19** We assess that there will be more efforts to detect and prevent food crime across the world, with more countries developing dedicated capabilities to tackle food crime or intending to do so. This represents a positive development within the global food chain.
- 6.1.20** This international focus will include the continued development of the Global Alliance on Food Crime, which brings together the UK, USA, Canada, Australia and New Zealand to discuss, develop and deploy counter-food crime capability.
- 6.1.21** There is current work by the Food and Agriculture Organisation (FAO) Codex Alimentarius Committee on Food Import & Export Certification and Inspection (CCFICS) to standardise definitions, and a greater focus on food fraud at international conferences focusing on food safety and food production.
- 6.1.22** The combination of population growth and climate change presents challenges for future food production. We will need more food, but it will get increasingly harder to produce and supply, using current methods. If food prices increase in line with this constriction of supply, then the incentive to commit food crime would increase.
- 6.1.23** Future changes in UK environmental policy may result in new threats in the food crime landscape. This could include illicit chemical interventions in crop production and goods transit methods outside of the cold chain being areas of potential growth in response to regulatory controls over vehicle emissions and pesticides.
- 6.1.24** The drive towards a low carbon economy could have unintended consequences for food safety and authenticity. More UK cities may introduce low emission zones, which could deter food suppliers from using older, polluting refrigerated vehicles within those areas, a practice which will attract a penalty fee. This could result in food being removed from the cold chain during distribution, raising safety and hygiene issues.

⁷³ [Mission Letter](#), Stella Kyriakides (President-elect of the European Commission, September 2019)

- 6.1.25** When these threats and other influencing factors are considered holistically, it is our assessment that **a continued focus on the tangible threat which food crime poses to the UK, both domestically and from overseas, is fully justified.**
- 6.1.26** There will be a continued requirement to protect the UK and its interests from food crime, notwithstanding current and future efforts from government, private and third sector partners to tackle the issue.
- 6.1.27** The Units will continue to develop a more sophisticated understanding of the UK food crime threats and vulnerabilities, in order to best protect consumers and businesses. We will continue to explore and assess the consequences of future regulation, and monitor the interplay between our food systems, food crime and other serious organised crime which takes place in the food environment but does not affect product safety or authenticity.
- 6.1.28** We will work with partners to ensure that the future threat of food crime in the UK is reduced, controlled and continues to be thoroughly understood. We will require the assistance and support of our all partners if we are to credibly and collectively meet this goal.

7. Next Steps

- 7.1.1** This assessment demonstrates the complexity of understanding food crime, and the degree to which vulnerability to fraud takes on many forms, presenting varying levels of harms within the UK. We can make judgements about which aspects of the food crime threat merit prioritisation based on our current understanding of this landscape.
- 7.1.2** The assessment is used as a driver for strategic prioritisation by the Units, as well as supporting broader work within the Food Standards Agency and Food Standards Scotland.
- 7.1.3** Each Unit has developed their own control strategy and an associated plan of activity to deliver it, including identifying new intelligence requirements. This includes activity aimed specifically at protecting consumers and businesses from becoming victims of food crime, and preventing individuals from engaging in food crime, as well as pursuing food criminals.
- 7.1.4** We also want to continue to understand more from those working in the food industry, trade bodies, those working in the regulatory area, and our law enforcement partners. There are a number of routes to contact the Units, which are listed on the following page. This interaction is essential to best focus, and to continually improve, our response to food crime.

Tell us what you think

We value feedback from everyone who has read this document. Please complete a short [survey](#) – completely anonymously if you wish – to help us improve future iterations of the assessments.

Tell us what you know

If you have information to share about food crime, you can contact us one of several ways.

National Food Crime Unit, Food Standards Agency

Call Food Crime Confidential on 020 7276 8787 (9am – 5pm, Monday – Friday)

Report concerns via the [FSA website](#)

Email foodcrime@food.gov.uk

Visit the food crime section of our [website](#)

Scottish Food Crime & Incidents Unit, Food Standards Scotland

Call the Scottish Food Crime Hotline free on 0800 028 7926 (24 hrs)

Report your concerns via a dedicated [online reporting form](#)

Email foodcrime@fss.scot

Visit the food crime section of our [website](#)

Appendix A – List of Contributors

Animal and Plant Health Agency (APHA)

British Retail Consortium (BRC)

Department for Environment, Food and Rural Affairs (DEFRA)

Food Authenticity Network

Food Industry Intelligence Network (FIIN)

Food Safety Authority in Ireland (FSAI)

Food Standards Agency (FSA), including FSA Wales and FSA Northern Ireland

Food Standards Scotland (FSS)

Gangmaster and Labour Abuse Authority (GLAA)

Global Alliance on Food Crime

Inshore Fisheries & Conservation Authorities (IFCA)

Laboratory of the Government Chemist (LGC)

Marine Management Organisation (MMO)

Marine Scotland

National Wildlife Crime Unit (NWCU)

NFU Mutual

Rural Payments Agency (RPA)

SeaFish

Scottish Government

Trading Standards Scotland

Transported Asset Protection Association (TAPA)

UK Border Force

102 Environmental Health and Trading Standards Departments and Food Groups across England, Scotland, Wales and Northern Ireland