FOOD STANDARDS AGENCY: INFORMATION RELEASED UNDER THE FREEDOM OF INFORMATION ACT

DATE RELEASED: 26 JULY 2019

Annex A

Request

Under the Freedom of Information act can you please provide me with the following information:

- 1. How many times in 2018 and 2019 was meat found to have been mis-sold (as in, called one meat when in fact it was another) in the UK? Can I have the total broken down by year.
- 2. Can you provide specific details (dates, suppliers, meat type etc) of all cases where meat has been mis-sold in the way described above?

For clarity I am after something akin to FOI 2227 requested 2 July 2018. I've attached the document you released at the time to show you what I am after.

Response

The FSA is unable to provide a full response to your request as it does not hold all the relevant information needed to fully determine how many times in 2018 and 2019 meat was found to be mis-sold - called one meat when in fact it was another - in the UK.

The FSA holds only partial information in relation to your request.

To put this partial information into context, please note the following points.

- Food Standards Scotland (FSS) is responsible for food safety in Scotland so you
 would have to request any data on local authority sampling in Scotland from FSS.
- Day to day responsibility for enforcement of food standards law in food businesses, including the taking of samples, rests with local authorities across England, Wales and Northern Ireland.
- Food sampling is only one of a number of different approaches that local authorities take to assess compliance with food law - this includes, for example, checking traceability.
- Local authorities conduct the sampling, arrange for relevant testing and carry out enforcement activity where required.
- The number of samples taken will depend on a range of factors including the number and types of businesses, the results of past inspections and other types of intervention.
- Sampling is not conducted on a random or representative basis but, rather, is used as part of a targeted approach.
- The FSA collects sampling data on an annual basis through its <u>Local Authority</u> <u>Enforcement Monitoring System (LAEMS)</u> but this only provides information on the total number of samples local authorities collect and does not provide details of what particular testing was undertaken or the results of that testing.
- Some, but not all, local authorities report sampling results using the FSA's United Kingdom Food Surveillance System (UKFSS) use of the system is voluntary.

The partial data that is held by the FSA is provided at Annex B (local authority sampling data).

Local authority data

Of 308 samples that fall within scope of your request, 34 were found to be unsatisfactory due to speciation. Details of the unsatisfactory samples are provided at Annex B.

Please note the following additional points in relation to this data.

- Some data may not, as yet, have been processed and reported through UKFSS to the FSA.
- The data has not been verified with the reporting authorities to ensure its accuracy.
- Trace levels of unspecified meat or DNA at values of less than 1% may be regarded as cross contamination – this is generally due to inadequate cleaning of processing lines - rather than deliberate inclusion so these results are not included in the table of unsatisfactory samples.
- It is possible that levels of unspecified meat or DNA above 1% may also be due to cross contamination (due to inadequate cleaning) rather than deliberate inclusion.
- Local authorities are responsible for investigating unsatisfactory results and the FSA does not hold details of the outcomes so cannot say where deliberate inclusion has occurred.
- The names of the brand and food premises from which the unsatisfactory samples were taken have been withheld under section 31 (law enforcement) and 43 (commercial interests) of the Act. Further details about the use of these exemptions have been provided at Annex C.

Annex B – Unsatisfactory samples held on UKFSS

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
19300570346	Lancashire County Council	07/09/2018	Section 31 and 43	Slaughterhouses	Section 31 and 43	LAMB SAMOSAS	The sample was described as 'Lamb Samosas'. DNA of cow, sheep and chicken was detected in the sample. I am of the opinion that the food was falsely described.
19301191150	Lancashire County Council	11/05/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	BEEF STIR FRY	The sample was described as 'Beef Stir Fry'. DNA of chicken was detected in the sample. DNA of cow was not detected in the sample. The results of analysis were consistent with the meat in the food being derived from chicken. I am of the opinion that the food was falsely described.
43700213915	West Yorkshire Council	29/05/2018	Section 31 and 43	Restaurants and other Caterers	mutton seek kebab meal	mutton seek kebab meal	I would expect the meat ingredient of a meat product described as 'Mutton seek kebab' to be derived only from sheep unless otherwise qualified. Consequently, I am of the opinion that the name was misleading as to the nature of the food.
19300900626	Lancashire County Council	30/01/2018	Section 31 and 43	Restaurants and other Caterers	N/A	GOAT CURRY	The sample was described as 'Goat Curry'. DNA of goat was not detected in the sample. DNA of sheep was detected in the sample which was indicative that the meat was derived from sheep. I am of the opinion that the food was falsely described.
19301160464	Lancashire County Council	30/04/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	EXTRA LEAN MINCE 5% FAT	DNA of cow, pig and sheep was detected in the sample. It was estimated that approximately 1% of the DNA present was of pig origin and approximately 2% of the DNA present was of sheep origin. I would expect a product described as 'Extra lean mince' to be derived only from cow unless otherwise qualified. Consequently, I am of the opinion that the food was not of the nature demanded by the purchaser.
19301160472	Lancashire County Council	01/05/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	MINCED STEAK	The sample was described as 'Minced Steak'. DNA of cow and pig was detected in the sample. It was estimated that approximately 1.8% of the DNA present was of pig origin which was indicative of the presence of pork. I am of the opinion that the food was falsely described.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
19301191129	Lancashire County Council	24/04/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	LAMB AND VEGETABLE PIES	The sample was described as a 'Lamb and Vegetable Pie'. DNA of sheep and cow was detected in the sample. It was estimated that approximately 30% of the DNA present was of cow origin which was indicative of the presence of beef. Consequently, I am of the opinion that the food was not of the nature demanded by the purchaser.
19301191131	Lancashire County Council	24/04/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	MINCED PORK	The sample was described as 'Minced Pork'. DNA of cow and pig was detected in the sample. It was estimated that approximately 40% of the DNA present was of cow origin which was indicative of the presence of beef. I am of the opinion that the food was falsely described.
19301191135	Lancashire County Council	24/04/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	MINCED STEAK	The sample was described as 'Minced Steak'. DNA of cow and sheep was detected in the sample. It was estimated that approximately 2% of the DNA present was of sheep origin. I am of the opinion that the food was falsely described.
22600860141	Norfolk County Council	13/09/2018	Section 31 and 43	Retailers	Section 31 and 43	Lamb and Mint triangles	DNA was extracted from the sample. Seven real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse), Gallus gallus (Chicken) and Meleagris gallopavo (Turkey) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%), Medium part (30 - 60%), Minor part (5 - 30%), Diminutive part (1 - 5%), Very diminutive part (<1%). The following species were detected in the sample: Sheep (major part), Beef (minor part), Pork (minor part). In my opinion, the meat present in a sample described as 'lamb and mint triangles' should consist solely of sheep
							meat. Consequently, I am of the opinion that the sample was not of the substance demanded.
40500010604	Bury Metropolitan Borough Council	01/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB CURRY	The sample was described as 'lamb curry'. DNA of sheep was not detected in the sample. DNA of cow was detected in the sample. I am of the opinion that the meat of the sample was derived from cow and that the food was not of the nature demanded by the purchaser.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
40500010610	Bury Metropolitan Borough Council	01/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB BHUNA	The sample was described as 'lamb bhuna'. DNA of sheep was not detected in the sample. DNA of cow was detected in the sample. I am of the opinion that the meat of the sample was derived from cow and that the food was not of the nature demanded by the purchaser.
40500010635	Bury Metropolitan Borough Council	01/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB TIKKA BALTI	The sample was described as 'lamb tikka balti'. DNA of sheep was not detected in the sample. DNA of cow was detected in the sample which was indicative of the presence of meat derived from cow. I am of the opinion that the food was not of the nature demanded by the purchaser.
40500010681	Bury Metropolitan Borough Council	08/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB CURRY	DNA of sheep was not detected in the sample. DNA of cow was detected in the sample. I am of the opinion that the meat of the sample was derived from cow and that the food was not of the nature demanded by the purchaser.
40500010684	Bury Metropolitan Borough Council	08/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB CURRY	The sample was described as 'lamb curry'. DNA of sheep and cow was detected in the sample. I am of the opinion that the meat of the sample was derived from sheep and cow and that the food was not of the nature demanded by the purchaser.
40500010688	Bury Metropolitan Borough Council	08/02/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB CURRY	The sample was described as 'lamb curry'. DNA of sheep was not detected in the sample. DNA of cow was detected in the sample which was indicative of the presence of meat derived from cow. I am of the opinion that the food was not of the nature demanded by the purchaser.
42201570006	Salford City Council	29/06/2018	Section 31 and 43	Manufacturers / processors	Section 31 and 43	CHICKEN MECHANICA LLY SOURCED MEAT, BEEF AND LAMB KEBAB MEAT	Sheep DNA was not detected in the sample which was indicative of the absence of meat derived from sheep. I am of the opinion that the food was falsely described.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
42201570009	Salford City Council	29/06/2018	Section 31 and 43	Manufacturers / processors	Section 31 and 43	DONER KEBAB	The label supplied with the sample included the following information 'Doner' and 'Ingredients: Mechanically Recovered Meat (20%), Beef (35%), Beef Fat (20%), Lamb (10%)'. I would expect the meat ingredients of a meat product described as 'doner' to be derived only from sheep unless otherwise qualified. Consequently, I am of the opinion that the name was misleading as to the nature of the food. Sheep DNA was not detected in the sample which was indicative of the absence of meat derived from sheep. I am of the opinion that the list of ingredients was misleading as to the nature of the food.
43100380028	Trafford Metropolitan Borough Council	01/05/2018	Section 31 and 43	Distributors / Transporters	N/A	GOAT	DNA of goat was not detected in the sample. DNA of sheep was detected in the sample. I am of the opinion that the meat of the sample was derived from sheep and that the food was not of the nature demanded by the purchaser.
51100391186	London Borough of Greenwich	13/03/2018	Section 31 and 43	Restaurants and other Caterers	N/A	LAMB DONER	DNA relating to bovine (cow), chicken and ovine (sheep) species was detected. The average quantity of bovine DNA equated to 35%, ovine DNA 50% and chicken DNA 9% of the detected meat DNA. In my opinion, a food described as 'Lamb Doner' should consist of ovine (sheep) DNA only. The presence of both beef and chicken therefore renders the food not of the substance demanded within the meaning of section 14 of the Food Safety Act 1990.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
56300390110	Neath Port Talbot County Borough Council	11/12/2018	Section 31 and 43	Restaurants and other Caterers	LAMB TIKKA MASSALA	LAMB TIKKA MASSALA	The food was obtained from a catering establishment and from information provided by the submitting officer, was sold as 'lamb tikka massala'. From one dish, all of the meat entities were removed from the sauce, scraped clean and then homogenised together in order to form the sample for DNA speciation analysis. All non-sauce entities were then removed prior to the analysis of the sauce matrix for artificial colouring matter. Genetic material consistent with ovine (sheep) and bovine (beef) was found by analysis. Quantified DNA analysis estimate of the amounts by determining the normalised ratio of the target species DNA copy number to the total copy numbers (bovine, ovine, porcine, gallus, caprine and horse equine). The copy number ratio of the ovine and all species indicates that as a best estimate based on the DNA extraction variability between different types of tissues, the level of ovine is 10-50% of the meat component. I am of the opinion that the sample is predominantly beef (bovine), with a medium level of ovine (sheep). I am subsequently of the opinion that a food described and sold as lamb should consist entirely of sheep and I am therefore of the opinion that the sample was not of the nature demanded by the purchaser within the meaning of section 14 of the Food Safety Act 1990.
56500152406	Pembrokeshi re County Council	05/12/2018	Section 31 and 43	Manufacturers / processors	N/A	MINCED LAMB	Analysis of DNA extracted from the meat showed it to consist principally of sheep meat, but that a significant amount of beef was also present. The Food Standards Agency advice is that values above 1% be regarded as deliberate addition and values below as adventitious contamination. The sample contained an excess of beef and was therefore not of the substance demanded, contrary to the requirements of Section 14 of the Food Safety Act 1990. The following scale is used to indicate the proportion of DNA in the total DNA measured: Major part (60-100%); Medium part (30-60%); Minor parts (5-30%); Diminutive part (1-5%); Very diminutive parts (<1%) (detected but below the reporting limit of the method); Not detected.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80700560707	Belfast City Council	05/09/2018	Section 31 and 43	Manufacturers / processors	NONE	PORK & LEEK SAUSAGES	The sample consisted of a meat product described as "pork sausage", the ingredients included Pork 76%, Lamb 7%. Analysis of DNA extracted from the meat portion of the sample showed it to consist principally of pork with very significant amounts of sheepmeat and traces of beef and chicken present. The Products Containing Meat etc Regulations (Northern Ireland) 2014 require the meat portion of a food described as pork sausage to consist entirely of pork, so the name should be amended to reflect the declared presence of lamb. The apparent meat content was significantly below the declared meat content and I am therefore of the opinion the food was not of the substance demanded, contrary to the requirements of Article 13 of the Food Safety (Northern Ireland) Order 1991.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
807006225068	Belfast City Council	22/08/2018	Section 31 and 43	Manufacturers / processors	Section 31 and 43	VENISON SAUSAGE	The apparent meat content of the sample was 96% which is in sufficient agreement with the quantitative ingredient declarations made for Venison of 82% and Pork of 13% (total of 95% meat ingredients). DNA was extracted from the sample. Nine real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse), Gallus gallus (Chicken), Cervus elaphus (deer), Equus asinus (Donkey) and Meleagris gallopavo (Turkey) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Deer (major part); Beef (minor part); Pork (diminutive part). The labelling indicates that the sausages contain Venison and Pork. Beef which is present in the food as a minor part (5 - 30%) was not declared as an ingredient or in the name of the food. I am therefore of the opinion that the sample was not of the substance demanded and was unsatisfactory in this respect. The name of the food was Venison sausage, under the terms of Regulation (EU) 1196/2011 on the provision of food information to consumers, this name would not be sufficiently descriptive as the sausage is not wholly Venison.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80900400311	Castlereagh Borough Council	05/01/2018	Section 31 and 43	Manufacturers mainly selling by retail	MADE ON PREMISE	MINCE BEEF	DNA was extracted from the sample. Five real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Beef (major part); Pork (diminutive part); Sheep (very diminutive part). The sample was described as "mince beef" and was therefore not of the substance demanded, contrary to the requirements of Article 13 of the Food Safety (Northern Ireland) Order 1991.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80900480015	Castlereagh Borough Council	12/06/2018	Section 31 and 43	Manufacturers / processors	MADE ON PREMISE	BEEF AND BLACK PEPPER SAUSAGE	As a result of the analysis, I am of the opinion that the apparent meat content met the minimum meat content requirement for the reserved description 'sausage' where the meat ingredient consists of meat other than pork, meat from birds or meat from rabbits as laid down in The Products Containing Meat etc. Regulations (Northern Ireland) 2014. The apparent meat content of the sample was 16% lower than the QUID declaration made for beef, a deficiency equivalent to approximately 26% of the declared content; this is unsatisfactory. DNA was extracted from the sample. Five real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Beef (major part); Sheep (minor part) The presence of other meats in sausages other than sausages described as pork sausages is not specifically prohibited by the Products Containing Meat etc (Northern Ireland) Regulations 2014. However, under the terms of the Food Information Regulations (Northern Ireland) 2014 which provide for the execution and enforcement of Regulation (EU) No. 1169/2011 on the provision of food information to consumers, I am of the opinion that other meats which characterise the food should be included in the name of the food to prevent consumers being misled. The sample was described in the submission information as prepacked for the ultimate consumer. Under the terms of the Food Information Regulations (Northern Ireland) 2014 which provide for the execution and enforcement of Regulation (EU) No. 1169/2011 on the provision of food information to consumers, I am of the

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80900480201	Castlereagh Borough Council	23/11/2018	Section 31 and 43	Retailers	MADE ON PREMISE	PORK BBQ SAUSAGES	DNA was extracted from the sample. Five real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: (major part) - Sus scrofa (Pork); (minor part) - Bos taurus (Beef); (very diminutive part) - Ovis aries (Sheep). In my opinion the presence of less than 1% of Ovis aries (Sheep) DNA in the sample is unlikely to be due to deliberate substitution however, a significant amount (5-30%) of beef was detected in the sausage. The Products Containing Meat etc. (Northern Ireland) Regulations 2014 require the meat portion of a food described as pork sausage to consist entirely of pork. Food Standards Agency advice is that values above 1% should be regarded as deliberate addition therefore, this sample failed to comply with the requirements of the Regulations.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80900490091	Castlereagh Borough Council	25/07/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	THICK PORK SAUSAGES	The apparent meat content of the sample was satisfactory. DNA was extracted from the sample. Five real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Pork (major part); Sheep (minor part); Beef (diminutive part). The Products Containing Meat etc. Regulations (Northern Ireland) 2014 require pork sausages to contain meat from pigs only. The sample was described as pork sausages and was therefore not of the substance demanded, contrary to the requirements of Article 13 of the Food Safety (Northern Ireland) Order 1991.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80900490131	Castlereagh Borough Council	27/07/2018	Section 31 and 43	Manufacturers mainly selling by retail	N/A	PORK & LEEK SAUSAGES	DNA was extracted from the sample. Five real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Pork (major part); Sheep (diminutive part). The Products Containing Meat etc. Regulations (Northern Ireland) 2014 require sausages qualified with the name 'pork' but not by the name of any other type of meat to contain meat from pigs only. The sample was described as pork & leek sausages and was therefore not of the substance demanded, contrary to the requirements of Article 13 of the Food Safety (Northern Ireland) Order 1991. The Food Information Regulations (Northern Ireland) 2014 require this meat product to be labelled with a QUID declaration of meat content. In the case of meat products which are not pre-packed, or are pre-packed for direct sale, the declaration should appear on a ticket or notice displayed in immediate proximity to the food, or on a label attached to the food. The information submitted with the sample stated that 69% pork was declared. However, based on the results of analysis, I am of the opinion that the sample must be marked or labelled separately with the quantity of pork used in the preparation of the food and the quantity of sheep meat used in the preparation of the food.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments	
87000310017	Milton Keynes Council	11/07/2018	Section 31 and 43	Restaurants and other Caterers	N/A	НАМ	The sample bore the description 'Ham'. In my opinion a product bearing the name 'ham' is derived from pork me The sample was tested for a range of meat species usin DNA based technique. The DNA present in the sample was consistent with turkey meat. DNA from porcine (p meat was not detected. In my opinion the sample fails t satisfy the requirements of The Food Safety Act 1990 in that it is not of the nature demanded by the purchaser a was not derived from pork meat.	
87000310020	Milton Keynes Council	11/07/2018	Section 31 and 43	Restaurants and other Caterers	N/A	PEPPERONI	The sample bore the description 'Pepperoni'. In my opinion a product bearing the name 'Pepperoni' is derived from pork and beef meat. The sample was tested for a range of meat species using a DNA based technique. The DNA present in the sample was consistent with beef, chicken and turkey. Chicken DNA was the major meat DNA component whereas beef DNA equated to 6% of the total meat DNA. A trace of turkey DNA was detected at a level of less than 0.1% of the total meat DNA. DNA from pig meat was not detected. In my opinion the sample fails to satisfy the requirements of The Food Safety Act 1990 in that it is not of the nature demanded by the purchaser as in that it did not contain pig meat.	

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
55900260272	Denbighshire County Council	05/02/2019	Section 31 and 43	Retailers	N/A	PORK SAUSAGEM EAT	DNA was extracted from the sample. Seven real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse), Gallus gallus (Chicken) and Meleagris gallopavo (Turkey) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Pork (major part); Beef (minor part). The sample was described as Pork sausage meat. The major species was Pork which is consistent with that declared. However the sample also contained a minor part of Beef (5 to 30%).
							Based on the results of the analysis the sample was misdescribed as I am of the opinion that a food described as Pork sausage meat should consist solely of Pork.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
55900260275	Denbighshire County Council	05/02/2019	Section 31 and 43	Retailers	Section 31 and 43	LAMB MINCE FREE FLOW	DNA was extracted from the sample. Seven real-time PCR assays for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse), Gallus gallus (Chicken) and Meleagris gallopavo (Turkey) were then applied to detect and measure the amount of those animal species present. The measurement is semi-quantitative, and estimates from the detected signals the amount of DNA present for all tested species and each individual species in bands as follows: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%); Very diminutive part (<1%). The following species were detected in the sample: Sheep (major part); Beef (diminutive part). The major species detected is consistent with that declared. The level of beef in the sample, although possibly due to adventitious cross-contamination, is higher than what would be expected when using good practice and warrants investigation into handling and cross-contamination.

Reference	Local authority	Sample date	Premises name	Premises type	Brand name	Food Description	Analyst Comments
80200571236	Ards Borough Council	22/01/2019	Section 31 and 43	Restaurants and other Caterers	N/A	PORK AND APPLE BURGERS	The apparent meat content of the sample was satisfactory, and the level of sulphur dioxide preservative found was not excessive. DNA was extracted from the sample. Seven real-time PCR assays specific for Bos taurus (Beef), Sus scrofa (Pork), Ovis aries (Sheep), Capra hircus (Goat), Equus caballus (Horse), Gallus gallus (Chicken) and Meleagris gallopavo (Turkey) were then applied to detect and measure the amount of animal DNA present. Using the detected signals, all species DNA amounts present in the sample are calculated as relative values (%), related to the total amount of determined DNA, and are given in semi-quantitative ranges: Major part (60 - 100%); Medium part (30 - 60%); Minor part (5 - 30%); Diminutive part (1 - 5%) Very diminutive part (<1%). (Detected but below the reporting limit of the method). The following species were detected in the sample: Pork (major part); Beef (diminutive part). The only species of meat declared in the name of the food was pork. The Food Standards Agency advise that values above 1% be regarded as deliberate addition and values below as adventitious contamination, therefore the presence of beef in the sample described only as pork is not satisfactory.