Local Authority Food Sampling in Scotland

1 July 2014 to 30 June 2015

A Report by the Scottish Food Enforcement Liaison Committee's Sampling and Surveillance Working Group

INTRODUCTION

The Scottish Food Enforcement Liaison Committee (SFELC) Sampling and Surveillance Working Group (SSWG) was set up in 2005 to review sampling data collected by Scottish Local Authorities (LAs) and held on the UK Food Surveillance System (UKFSS) database. On an annual basis, the SSWG has produced an annual report based on an analysis of UKFSS data and a review of intelligence from local and regional food groups to recommend priorities for routine sampling programmes undertaken each year by LAs across Scotland. It should be noted that UKFSS is currently used by 30 out of the 32 LAs in Scotland, and the data in this report does not cover sampling activity undertaken by North Lanarkshire or South Lanarkshire Councils. Since compiling this report, North Lanarkshire council has started to use the system routinely and can therefore be included in next year's report.

This is the second annual report of sampling data collected during the 12 months between 1 July to 30 June, and covers the year 2014/15. The July-June timeframe was agreed to enable the data to be reported in line with recommendations made in the Scudamore review to make these reports available to LAs by January of each calendar year. This allows the recommendations to be used to design local, regional and national sampling strategies for the subsequent financial year. Sampling recommendations based on the analysis of the 2014/15 dataset are provided in Tables 18 and 19.

The report has also highlighted a number of key issues for further consideration by FSS and SFELC:

- *An increase of 25% in the total number of samples taken compared with 2013/14, which can be accounted for by increased uptake of UKFSS, and a greater focus on authenticity sampling;*
- *An overall improvement in both the microbiological and chemical quality of foods tested compared to 2013/14;*
- *The need to address on-going issues relating to the mis-use of colouring matter in take-away foods and sulphur dioxide in minced meat products;*
- *A 43% increase in sampling for meat and fish substitution compared with 2013/14, with an 11% decline in the number of meat substitution failures, and the number of fish failures for fish substitution increasing from 2% to 10%. The increase in fish substitution failures may be linked to the greater focus placed on sampling of haddock products in 2014/15 compared to previous years.*

SECTION 1: OVERALL DATA TRENDS

Between 1 July 2014 and 30 June 2015, the results of microbiological examination and chemical analysis conducted on a total of 10191 samples were submitted to the UKFSS database. This figure represents an increase of 2053 samples (25.2%) compared to the number recorded during the same period in 2013/14 (Table 1). The increase in sampling was observed across all Food Liaison Group (FLG) areas, but was most notable in West of Scotland and East of Scotland FLG. Of the additional 1753 samples taken across Scotland, a total of 933 (53%) was taken within the West of Scotland FLG area. The increase in sampling may be attributed to a combination of the following factors:

- Inverclyde Council (a member of West of Scotland FLG) started to record their sampling activity on UKFSS at the start of this reporting period.
- The setting of target numbers for recommendations made in the previous report for this sampling period.
- Increased surveillance by LAs in the area of authenticity testing to address specific recommendations made in the Scudamore review. This includes an FSS funded survey into fish authenticity in the public sector which contributed almost 300 samples to the total number of samples for the period.

Table 1. Comparison of UKFSS sampling numbers by Food Liaison Group

Liaison Group	Number of Samples Taken 1 July 2013- 30 June 2014	Number of Samples Taken 1 July 2014- 30 June 2015	Difference	%Difference
West of Scotland	2832	3765	933	33
East of Scotland	1604	2199	595	37
North of Scotland	2144	2405	261	12
Lothian & Borders	1558	1822	264	17
TOTALS	**8138**	**10191**	**2053**	**25.2**

A breakdown of the number of samples taken for microbiological and chemical purposes, and those giving an overall satisfactory result is presented in Table 2. It should be highlighted that unsatisfactory chemical results include samples which failed due to a range of issues including mis-labelling, the detection of additives or contaminants exceeding legal levels, and meat and fish substitution.

Table 2. Breakdown of UKFSS sampling statistics for 1 July 2014 - 30 June 2015

	Number of samples	Number of samples giving an overall satisfactory result	% of Satisfactory Samples
Microbiological	5591	4894	**87.5**
Chemical	4600	4171	**90.7**
Total	**10191**	**9065**	**89**

The figures indicate that, compared to the same period in 2013/14, the number of microbiological samples increased by 520 (10.2%) and the number of chemical samples increased by 1233 (36.6%). There was an overall increase of 9% in the proportion of satisfactory results, with a 10% improvement in satisfactory rates for microbiological sampling, and a 6.7% improvement in satisfactory rates for chemical sampling (Figure 1).

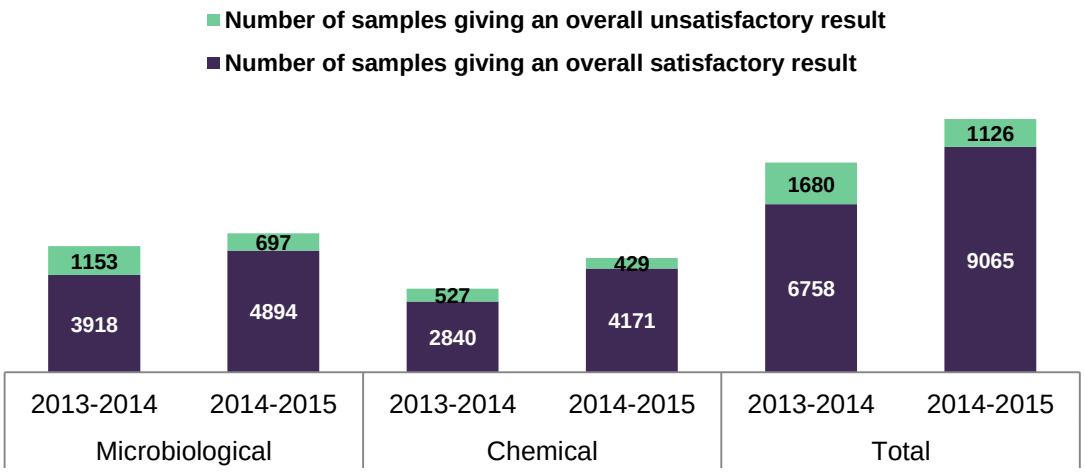

Figure 1. Comparison of sampling activity in 2014/15 with 2013/14

1.1. Breakdown of sampling activity according to premises type

A total of 3486 different food businesses were sampled across Scotland between 1 July 2014 and 30 June 2015. The results of sampling undertaken are broken down in Table 3 according to the types of premises that were sampled during this period.

Table 3. Breakdown of sampling activity according to premises type

Premises Type	Number of samples		Number of samples giving an unsatisfactory result		% of Unsatisfactory samples	
	Micro	Chemical	Micro	Chemical	Micro	Chemical
Distributors/Transporters	11	25	0	2	N/A	8
Importers/Exporters	48	86	3	4	6.3	4.7
Manufacturers mainly selling by retail	133	61	11	4	8.3	6.6
Manufacturers/Processors	1276	978	144	76	11.3	7.8
Packers	3	9	0	1	N/A	11.1
Primary producers	84	67	4	6	4.8	8.9
Restaurants and other Caterers	1434	1414	240	169	16.7	12
Retailers	2578	1930	299	161	11.6	8.3
Slaughterhouses	25	29	0	2	N/A	6.9
Total	**10191**		**1126**		**11**	

Similar to previous years, the highest proportions of samples were taken at manufacturers/processors, restaurants/caterers and retailers (94% of all samples). The highest failure rates were observed in samples taken at restaurants/caterers and retailers. A further breakdown of sampling undertaken at retailers is provided in Table 4, to indicate the numbers of samples taken at larger retail outlets compared with smaller retailers, and the failure rates at each of these different premises types.

Table 4. Breakdown of sampling activity in major supermarkets versus other retailer types

Retailer Type	Number of Samples Taken	Number of Unsatisfactory Results	% Unsatisfactory
Major Supermarket*	1276	59	4.6
Others	3232	401	12.4

** Samples taken at the 9 UK retailers with the largest market share (Asda, Sainsbury's, Tesco, Co-op, Marks & Spencer, Aldi, Lidl, Waitrose, Morrison's)*

The results presented in Table 4 indicate higher levels of sampling and higher failure rates in smaller retail outlets compared with the 9 major UK retailers. The data illustrates the focuss placed by Scottish LAs on inspection and sampling activities which support local businesses in complying with food law.

1.2. Breakdown of sampling activity according to country of origin

Figure 2 shows the proportions of samples taken of foods produced in the UK and imported products, and highlights that sampling activity was focussed on UK produced foods.

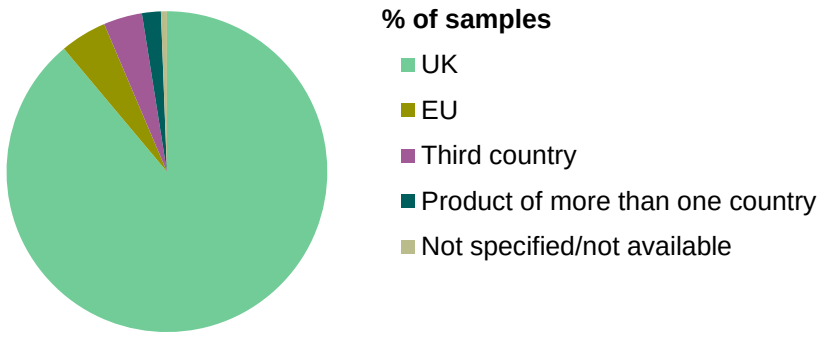

Figure 2. Sampling of products according to country of origin

A comparison of failure rates for imported products compared with UK produced foods is presented in Table 5. The results show that the highest failure rates for both microbiological and chemical testing were identified in products produced in the UK and other EU member states.

Table 5. Results of testing on samples broken down according to country of origin

Origin	Number of samples		Number of samples giving an unsatisfactory result		% of Unsatisfactory samples	
	Micro	Chemical	Micro	Chemical	Micro	Chemical
UK	5225	3833	646	408	12.4	10.6
EU	209	273	20	23	9.6	8.4
Third country	83	319	3	15	3.6	4.7
Product of more than one country	79	113	4	4	5	3.5
Not specified/not available	19	38	1	2	2.3	5.3
Total	**10191**		**1126**		**11**	

SECTION 2: REVIEW OF MICROBIOLOGICAL SAMPLING DATA

Microbiological samples are examined in a suite of tests, including the detection and enumeration of pathogens and/or levels of hygiene indicators and aerobic colony counts (ACCs). The results of these tests are interpreted against food hygiene legislation (as defined under Regulation EC No 2073/2005 on the Microbiological Criteria for Foodstuffs) and/or the

Health Protection Agency (HPA) Guidelines for Assessing the Microbiological Safety of Ready-to-Eat Foods Placed on the Market, and are classified as satisfactory, borderline or unsatisfactory. Samples are given an overall satisfactory result only when the results of all tests within the suite are satisfactory. For the purposes of this report, samples given an overall classification of unsatisfactory include those for which both borderline and unsatisfactory results were obtained.

2.1. Detection of hygiene indicators in food samples

The results for hygiene indicators (tested to assess the contamination of foods due to hygiene issues associated with production, processing and preparation), and pathogens (tested to assess microbiological contamination which has the potential to present a risk to human health) are presented in Tables 6 and 7 respectively. Table 6 indicates that the types of foods which most frequently failed due to the presence of borderline or unsatisfactory hygiene indicators were:

- Cooked meat and poultry
- Sandwiches
- Take-away foods
- Fish and shellfish products
- Ice-cream and desserts

Table 6. Test results for Hygiene Indicators

Hygiene indicator	Unsatisfactory/ Borderline food stuffs*	No of unsatisfactory samples	No of borderline samples	Overall no. of samples tested	% of satisfactory samples (number of satisfactory samples)
Aerobic Colony Count	**Total**	**495**	**539**	5221	80.2 (4187)
	Fish and shellfish products	23	43		
	Cooked meat and poultry	124	248		
	Sandwiches	125	174		
	Ready meals and Take Away meals	51	23		
	Water used as an ingredient/Ice/Swabs	146	0		
Non-pathogenic E. coli	**Total**	**37**	**23**	5170	98.8 (5110)
	Fish and shellfish products	12	1		
	Cooked meat and poultry	3	2		
	Ready meals and Take Away meals	7	4		
	Ice cream and desserts	6	13		
Listeria spp.	**Total**	**15**	**8**	5037	95.5 (5014)
	Dairy products	1	2		
	Fish and shellfish products	4	5		
	Sandwiches	5	1		
	Swabs	4	0		
Enterobacteriaceae	**Total**	**286**	**392**	4209	87.9 (3531)
	Ice cream and desserts	44	42		
	Cooked meat and poultry	65	115		
	Sandwiches	88	161		
	Fish and shellfish products	22	40		

**only food categories with the highest numbers of failures are detailed*
***includes only samples which gave 'Satisfactory' results*

2.2. Detection of pathogens in food samples

A total of 5591 of all microbiological samples were tested for the presence of at least one of the following key foodborne pathogens: Salmonella, Campylobacter, *Escherichia coli* O157, *Listeria monocytogenes*, *Clostridium perfringens*, *Staphylococcus aureus* and *Bacillus cereus*. The highest numbers of samples were tested for *L. monocytogenes*, *S. aureus* and *Salmonella*. Table 7 provides further details on the types of products which failed for each of these pathogens.

Table 7. Test results for pathogens

Pathogen	No. of samples tested	No. of unsatisfactory/ borderline samples	Unsatisfactory/ borderline food stuffs	Nature of product/type	Premises type	Packaging	Sample origin
Salmonella	**1364**	**1**	Pork sausages	Processed meat/ raw	Retailer	Prepacked	**UK**
Campylobacter	**224**	**1**	Organic Chicken Liver	Raw liver	Retailer	Prepacked	**UK**
***E. coli* O157**	**45**	**NA**	NA	NA	NA	NA	**N/A**
Listeria monocytogenes	**4561**	**1**	Chopped Pork	Ready to eat/ canned meat	Retailer	Not prepacked	**Not Specified UK**
		4	Hygiene swab	Various sites in food premises	Manufacturers mainly selling by retail (3)/ Manufacturers /processor (1)	N/A	**UK**
		3	Dressed Crab	Ready to eat	Retailer	Prepacked	**UK + Not Specified EU**
		1	Prepared fruit salad	Melon medley	Retailer	Prepacked	**UK**
		2	Smoked Fish	Cold smoked salmon/ Mackerel fillets	Manufacturers /processors Retailers	Not prepacked(1)/ Prepacked (1)	**UK+ Germany**
Clostridium perfringens	**2775**	**12**	Herbs & Spices	Chilli powder, cumin, cayenne pepper, cinnamon, curry powder, dried basil, salad cress	Retailers(9)/ Importers/Exporters (2)/ Restaurants and other Caterers(1)	Prepacked(10) / Not prepacked(2)	**UK + Sri Lanka + Not Specified UK + Not Specified EU**
		1	Cakes	Coconut Cream towers	Retailers	Prepacked	**UK**
Bacillus cereus	**214**	**1**	Chicken Soup	Prepared take-away meal	Restaurants and other Caterers	Prepacked	**UK**
		1	Watercress	Raw salad	Restaurants and other Caterers	Not prepacked	**Not Specified UK**
Staphylococcus aureus	**4508**	**3**	Salad	Prepared vegetable salad	Restaurants and other Caterers	Not prepacked	**UK**
		4	Cheese	Cow's cheese (3)- made from Processed Milk (1)/ made from Raw Milk (2) Unpasteurised stilton (1)	Retailer (2)/ Manufacturers /processors (2)	Not prepacked (3)/ Prepacked (1)	**UK + Poland + Not Specified UK**
		2	Meat Products (sausage roll & doner kebab)	Take away sausage roll/ doner kebab	Restaurants and other Caterers/ Manufacturers /processors	Not prepacked	**UK**
		1	Hygiene swab	Swab from ready to eat prep surface at salad bar	Restaurants and other Caterers	N/A	**UK**
		2	Sandwiches (chicken roll & pork belly wrap)	Chilled chicken roll/ hot pork belly wrap	Restaurants and other Caterers/ Retailers	Not prepacked	**UK + Not Specified UK**

Table 7 indicates that a proportion of the sample failures were attributable to repeated sampling undertaken at the same premises, and therefore the data is skewed towards problem areas identified during particular LA inspections, and will not be representative of the whole food chain. Notwithstanding this, the data reveals a number of issues which would merit further investigation in forthcoming sampling programmes. These are listed below:

- *Listeria monocytogenes* detected in ready to eat fishery products
- Microbiological quality of ready-made fruit and vegetable salads at retailers and caterers
- Microbiological risks associated with hygiene and storage at take-away premises
- Microbiological risks including Staphylococcus aureus in unpasteurised cheeses

SECTION 3: CHEMICAL SAMPLING DATA

Data categorised as chemical sampling covers a wide range of analysis types including the presence of contaminants, nutritional constituents, additives, and substitution. The majority of samples submitted for chemical analysis are also assessed for compliance with The Food Labelling Regulations 1996 and other relevant legislation which includes labelling requirements. As each sample is tested for a range of labelling and chemical testing issues, each category of analyses is associated with a number of different results. Therefore this data is broken down according to the numbers of results allocated with each category of test, as shown in Table 8.

<u>Key issues identified in the overall analysis of chemical data included:</u>

- Use of additives (145 unsatisfactory samples; 13%)
- Meat and fish substitution (97 unsatisfactory samples; 7.1%)
- Constituents – including unlabelled allergens and compositional issues (5.7%)

Table 8. Chemical analyses conducted on food samples and the numbers of satisfactory and unsatisfactory results obtained for each category

Type of analysis (No. Samples)	Total no. of samples	No. unsatisfactory samples	% unsatisfactory samples	Types of failure (number of unsatisfactory samples)
Constituent	2022	115	5.7	Acidity above or below limit/declaration (9) Alcohol below limit/guideline (4) Fat above or below limit/declaration (22) Gluten above declaration (6) Meat content above or below limit/declaration (15) Milk fat below declaration(8) Other constituent (51)
Additives*	1107	145	13	Colouring Matter above limit/present but not permitted (87) Preservatives above limit or present)(53) Flavour enhancers above guideline limit (5)
Nutritional Component*	472	9	1.9	Energy above or below limit/declaration (5) Fatty Acids above or below limit declaration (2) Sugar above or below limit declaration (2)
Undesirable Substances	821	9	0.3	Histamine above limit/declaration (3) Mycotoxins above limit/present (4) Sodium above or below limit/declaration (2)
Substitution	1362	97	7.1	Meat identification (42) Fish identification (55)

*Note that each sample may be subjected to a range of tests within each type of analysis e.g. a single meat products sample tested for 3 different constituent types - e.g. 'Meat content', 'Fat', and 'Gluten'.

Further details of key issues identified in the constituents category are provided in Tables 9- 13.

The results are indicative of potential issues in the following areas:

- Mis-use of sulphur dioxide in minced meat, sausages and burgers
- Mis-use of propionic acid in ethnic bread products
- Meat content in pies
- Undeclared gluten in burgers, sausages and cakes/traybakes
- Histamine in hard cheeses
- Aflatoxins in spices and spice mixes

Table 9. Mis-use of preservatives

	Number of samples	Number of unsatisfactory samples	Food Description (n)	Preservative type	Result Category
Preservatives	628	53	Bread (12)*	propionic acid	Above limit/Declaration/Guidance Present
			Burgers (6) Minced meat (3) Sausages (24) Cider (2) Dried fruit (1)	sulphur dioxide	
			Cakes (3)	sorbic acid	
			Fruit based soft drinks (2)	benzoic acid	

*Chappatis (1); Naan bread (6); Pitta bread (2); Paratha (Asian bread) (2); Rye and oatmeal loaf (1)

Table 10. Meat content

	Number of samples	Number of unsatisfactory samples	Food Description (n)	Result Category
Meat content	823	15	Beef burger (1)	Above limit/Declaration/Guidance
			Cooked poultry (3)	Below limit/Declaration/Guidance
			Pies (7)	Below limit/Declaration/Guidance
			Chicken burger (1)	Above limit/Declaration/Guidance
			Sausages (3)	Below limit/Declaration/Guidance

Table 11. Detection of gluten above declared amounts

	Number of samples	Number of unsatisfactory samples	% of unsatisfactory samples	Food description
Gluten*	61	6	9.8	Cakes/traybakes (3) Sausages (2) Burgers (1)

*Products labelled 'gluten free'; gluten level exceeded recommended 20 mg/kg

Table 12. Histamine in cheese

	Number of samples	Number of unsatisfactory samples	% of unsatisfactory samples	Food description
Histamine	74	3	4	Smoked cheddar cheese (1) Cheddar cheese (2)

Table 13. Mycotoxins

	Number of samples	Number of unsatisfactory samples	% of unsatisfactory samples	Food description
Mycotoxins	120	4	3.3	Whole dried chillies(1)- aflatoxin Stoneground cornmeal(1)- aflatoxin, ochratoxin Kebab spice mix (1)- aflatoxin Ground nuts (1)- aflatoxin

Similar to the previous year's report, the highest proportions of unsatisfactory results were identified in additives (13%) and substitution (7.1%). Meat and fish substitution and the mis-use of colouring matter (additives) are on-going issues which have been identified in previous sampling reports. Therefore, a further breakdown of sampling undertaken in these categories is provided below to determine whether there has been any improvement in these areas.

3.1. Meat/Fish Substitution and Speciation

Substitution failures for meat and meat products can either be due to deliberate substitution or through carry over/cross contamination of meat species between different batches of products which have been processed using the same equipment. Two distinct types of test are used to analyse these samples. One test (ELISA) gives a simple qualitative indication of the presence of a meat species in a sample. The other test (PCR) gives a semi quantitative estimation of the relative percentages DNA of species tested in a sample. The semi-quantitative estimation serves to provide an indication as to whether the sample likely contains trace amounts which may be due to cross-contamination/carry-over of the undeclared species (less than 1%), or whether it contains amounts which would be most likely to be present due to deliberate substitution (greater than 1%). For the purposes of this report, sample failures are defined as those found to contain greater than 1% of the undeclared species.

A total of 1362 samples were analysed for meat or fish speciation. The results of these analyses indicated that a total of 97 samples failed due to the presence of meat or fish species which was not declared on the label (substitution). A breakdown of the substitution issues identified during this sampling period are shown in Tables 14 and 15. The results indicate that the number of samples tested for meat and fish substitution between 1 July 2014-30 June 2015 (1362 samples) had increased by 43% compared with the same period last year (770 samples). The sampling comprised a total of 836 meat products and 526 fish products. The increase in the number of samples tested for substitution was partly attributable to an increase in fish sampling which was undertaken as part of a focussed fish authenticity survey undertaken in Scotland during March 2014-January 2015.

Table 14. Summary of sampling undertaken to assess meat and fish substitution

	Number of samples	Number of unsatisfactory samples	% of unsatisfactory samples
Fish	526	55	10.5
Meat	836	42	5

The overall failure rate for meat and fish substitution was 7.1%, which is around 3.5% lower than last year. However, the on-going identification of authenticity issues is a cause for concern. The mis-labelling of fish appears to be a particular issue, with the percentage of unsatisfactory samples at 10.5%, compared to 5% for meat substitution. This compares with failure rates of 16% for meat substitution and 2% for fish substitution in the 2013/14 reporting period (Figure 3), indicating that there has been a reduction of 11% in the percentage of meat substitution failures and a 5 fold increase in the number of non-compliances due to fish substitution.

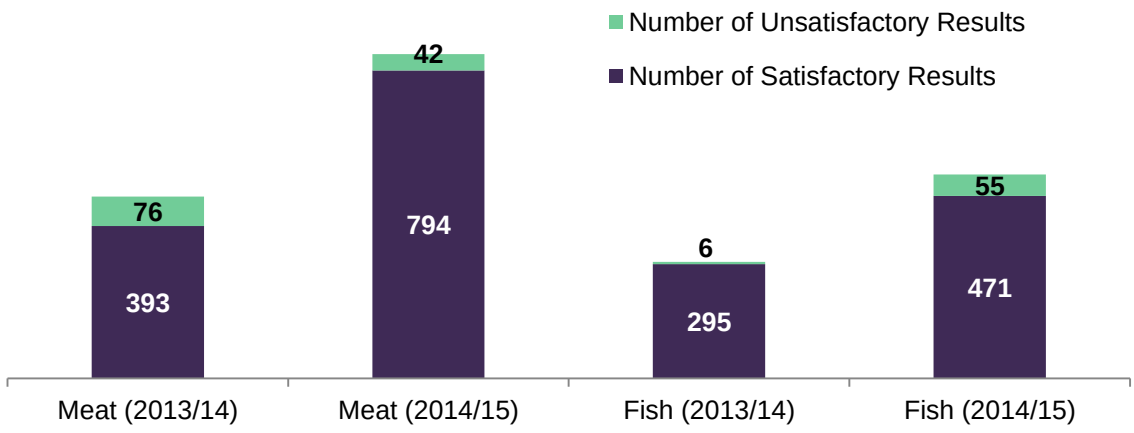

Figure 3. A comparison of meat and fish substitution results for the 2013/14 and 2014/15 sampling periods

Further analysis of the differences in the failure rates between the two years revealed that 78% of the samples analysed for fish substitution in 2014/15 were haddock products, compared with 58% in 2013/14; suggesting that the increased failure rate for fish substitution was at least partly due to the shift in focus to sampling of haddock. In contrast, there was no obvious difference in the profile of products tested for meat substitution. The reduction in the failure rate observed in meat products could therefore be indicative of fluctuating trends in the use of lamb and beef in take-away meals which are being detected through on-going sampling of these products.

Table 15 indicates that the highest number of failures during the 2014/15 reporting period were identified in take-away meals; a similar finding to last year. The most common non-compliances for meat and fish substitution were identified in lamb and haddock products. The findings would suggest that monitoring of substitution issues in these areas should be undertaken on an on-going basis. Consideration should also be given to the need for targeted guidance aimed at caterers to raise awareness and improve understanding of actions which need to be taken to ensure the authenticity of their supply chains.

Table 15. Details of samples which recorded an unsatisfactory result for meat and fish substitution

Foodstuff tested	No. of unsatisfactory samples	% of unsatisfactory samples	Species detected (no. of samples)
Burgers (87)	6	6.9	Presence of pork and lamb in beef burger (2) Presence of sheep in beef burger (1) Presence of beef in lamb burger (2) Presence of poultry in beef burger (1)
Coated fish fillets/ portions/ fish cakes (144)	14	9.7	Haddock substituted with whiting (10) Cod substituted with whiting (1) Haddock substituted with lemon sole, cod and coley (2) Cod fishcake substituted with haddock (1)
Cooked meat (25)	1	4	Chicken substituted with turkey (1)
Fresh and frozen fish (275)	20	7.3	Haddock substituted with whiting (11) Whiting substituted with haddock (3) Coley substituted with haddock (2) Lemon sole substituted with torbay sole (2) Haddock substituted with cod (2)
Minced meat (92)	7	7.6	Presence of beef and chicken in minced lamb (3) Presence of lamb and poultry in minced beef (4)
Meat Products – Other (50)	4	8	Donner kebabs found to contain beef and poultry (4)
Pies (beef) (42)	1	2.4	Presence of lamb in beef pie (1)
Restaurant Meals (10)	1	10	Lamb curry found to contain beef (1)
Sausages (132)	2	1.5	Presence of beef in pork sausage (1) Presence of beef in lamb sausage(1)
Take-away meals (350)	41	11.7	Haddock substituted with whiting and coley (19) Donner kebabs found to contain beef and poultry (8) Cod substituted with coley and haddock (2) Lamb curry substituted with beef and poultry (8) Lamb burger found to contain beef (2) Presence of lamb in goat curry (1) Presence of beef and chicken in lamb stir fry (1)

3.2. Use of colouring matter in food

A total of 157 results (145 samples) failed due to the presence of non-permitted additives, or levels of additives which exceeded legal limits. The majority of these involved the mis-use of colouring matter (87 samples). As with previous years, particular issues were identified in take-away meals, for which 25% of samples tested were found to contain unpermitted levels of colouring matter.

Further details of unsatisfactory results relating to mis-use of colouring matter are provided in Table 16. Similar to previous years, failures were detected in take-away meals, sauces, confectionary and food colouring.

Table 16. Food samples with unpermitted levels of colouring matter

Reason for failure	Food Description	Colours
*Presence of a Southampton 6 colour	**Take-away meals (253)**	
	Chicken/ Lamb Tikka Masala (31)	Sunset yellow (E110), tartrazine (E102) and ponceau 4R (E124)
	Chicken Pakora (11)	Tartrazine (E102), ponceau 4R (E124)and sunset yellow (E110)
	Pilau Rice (8)	Tartrazine (E102) and ponceau 4R (E124)
	Chicken Tandoori (2) Chicken Chasni (4)	Sunset yellow (E110) and ponceau 4R (E124)
	Spare Ribs (3)	Sunset yellow (E110) and ponceau 4R (E124)
	Lamb Chasni (2) Lamb Bhoona (1)	Sunset yellow (E110) and ponceau 4R (E124)
	BBQ Pork (1)	Sunset yellow (E110) and ponceau 4R (E124)
	Sauces (79)	
	Chilli Sauce (8)/ Sweet and Sour Sauce (7)/ Mint Sauce (1)	Sunset yellow (E110), ponceau 4R (E124) and allura red (E129)
	Confectionary (48)	
	Mint Humbugs (3)	Sunset yellow (E110)
	Gummy Cola Bottle (1)/ Jelly Mix (1)	Sunset yellow (E110) and ponceau 4R (E124)
	Food Colouring (8)	
	Balah Deep Orange Food Colouring (3)	Sunset yellow (E110) and ponceau 4R (E124)

*Southampton 6 colour - sunset yellow (E110), quinoline yellow (E104), carmoisine (E122), allura red (E129), tartrazine (E102) and ponceau 4R (E124)

SECTION 4: RECOMMENDATIONS FOR SAMPLING AND ENFORCEMENT INITIATIVES IN 2016/17

One of the main functions of this report is to identify trends from UKFSS data and local intelligence to recommend LA sampling priorities for the forthcoming year. The progress made by Scottish LAs in sampling in areas recommended by the previous two SSWG reports is summarised in Annex 1.

The food sampling data presented in the current report was reviewed by the SSWG at their meeting on 5th November 2015. The findings were considered in conjunction with local intelligence provided by SSWG members to develop a series of recommendations for food sampling and surveillance activities in Financial Year 2016/17, and to identify where recurring issues require more targeted and robust enforcement action to be taken in particular areas. Tables 17 and 18 provide the recommendations made by the SSWG for sampling during this period.

In addition to the recommendations for sampling activity, this report has identified on-going non-compliances in a number of areas which SSWG recommends are targeted by SFELC and FSS for targeted enforcement action and/or education initiatives during the next year. It is also proposed that on-going sampling in these areas should be reviewed in next year's report to assess the impact. These areas are:

- Mis-labelling of white fish, particularly haddock
- Substitution of beef and lamb in take-away meals
- Mis-use of colouring matter in take-away meals
- Mis-use of sulphur dioxide in minced meat products produced by small butchers shops

It is also worth noting that some of the issues identified in this report are also being addressed through the current LA sampling grants programme. These include: fish substitution, microbiological quality of salads and soft cheeses, and speciation of minced meat products.

Table 17. Summary of microbiological sampling recommendations 2016/17

Food Type	Premises Type	Testing parameters	Target Minimum Sample Numbers
Areas identified from analysis of UKFSS data			
Non pre-packed fruit and vegetable salads	Caterers and retailers	*Staphylococcus aureus*, *Listeria* sp, *E.coli*	100
Noodles and rice dishes	Caterers	ACCs, entrerobacteriaceae, *Listeria* sp., *E.coli, B. cereus*	300
Unpasteurised cheeses	Distributors and retailers	*Listeria* sp., *E.coli, Listeria monocytogenes, Staphylococcus aureus (coagulase +ve strains)*	200
Ready to eat fish and shellfish products	Distributors and retailers	ACCs, entrerobacteriaceae, *Listeria* sp., *E.coli, Listeria monocytogenes, Staphylococcus aureus*	300
Areas identified through local intelligence suggested by SSWG members			
Cheese (grated)	Caterers	*Staphylococcus aureus, Listeria* sp., *E.coli*	100
Fruit and vegetable smoothies	Caterers	*Staphylococcus aureus*, *Listeria* sp., *E.coli*	100

Table 18. Summary of chemical sampling recommendations for 2016/17

Food Type	Premises Type	Testing parameters	Target Minimum Sample Numbers
Herbs and Spices	Distributors and retailers	Mycotoxins	100
Ethnic breads	Producers, distributors and retailers	Propionic acid	100
Cakes and traybakes	Small producers, caterers and retailers	Undeclared gluten	200
Burgers and sausages	Butchers	Undeclared gluten and sulphur dioxide	300
Meat pies	Small producers and retailers (including butchers)	Meat content and speciation	300
Sauces, batters and rice dishes	Caterers (other than Indian style)	Mis-use of colours	100
Curries, kebabs, meals containing meat	Caterers (Chinese/Indian/Turkish style)	Meat speciation (and mis-use of colours where appropriate)	300
Fish	Distributors, caterers and retailers	Speciation	200

Local Food Liaison Groups, or individual local authorities, may wish to augment the test suites applied to the samples taken in order to address local concerns or interests. Examples are salmonella could be added to the suite for noodles & rice dishes or histamine and authenticity of cheese could be added to the microbiological suite for grated cheese.

Annex 1 PROGRESS WITH RECOMMENDATIONS FROM THE 2013/14 FOOD SAMPLING REPORT

Table 19. Summary of sampling activity towards recommendations made in the first SSWG report (sampling undertaken between 1 April 2014-31 March 2015)

Recommendation		Number of samples taken	No. unsatisfactory samples	% unsatisfactory samples
Campylobacter in chicken liver products sampled at catering premises		104	0	N/A
Analyses of UK produced ready to eat products for microbiological contamination, with a focus on Listeria monocytogenes	Pre-packed at end of shelf life	1391	11	0.8
	Non Pre-packed	3062	12	0.4
Substitution and mis-use of colours in take-away meals	Substitution	518	56	10.8
	Presence/Levels Colourings in take-away meals	300	66	22
Substitution and labelling in meat products imported from EU countries	Substitution	142	4	2.8
	Labelling	5	5	100
Labelling and use of colours in confectionary and soft drinks produced in the US and Canada	Labelling	4	4	100
	Use of colours	25	2	8

Table 20. Summary of sampling activity towards recommendations made in the second SSWG report (sampling undertaken between 1 April-31 October 2015)

Recommendation		Number of samples taken	No. unsatisfactory samples	% unsatisfactory samples
Histamine levels in cheeses samples at retail		83	0	N/A
Microbiological quality of ready to eat foods imported from EU or third countries		113	0	N/A
Microbiological quality of herbs and spices used by caterers		43	0	N/A
Meat substitution and use of additives by caterers	Meat substitution	112	3	2.7
	Use of additives	198	36	18.2
At catering premises	Campylobacter in duck and other game birds served rare	3	0	N/A
	Microbiological quality of burgers (to access issues with undercooking)	2	0	N/A
	Microbiological quality of sous-vide food	0	0	N/A
Fat content of minced meat at butchers and small retailers		69	12	17.4