

**SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE  
FOOD STANDARDS SUB-COMMITTEE**

**SURVEY NUMBER SF11  
Microbiological quality of pates and smoked products**

**SURVEY NUMBER SF16  
Microbiological quality of pates made by small-scale producers and caterers**

**Report  
April 2009**

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## **SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE FOOD STANDARDS SUB-COMMITTEE**

### **SURVEY NUMBER SF11: Microbiological quality of pates and smoked products SURVEY NUMBER SF16: Microbiological quality of pates made by small scale producers and caterers**

#### **Summary**

110 samples of pates and smoked products were taken by Scottish Environmental Health Departments for Survey SF11. This was followed by 36 samples of pates made by small-scale producers and caterers being taken for Survey SF16

Twelve of the 76 samples (16%) of pate and nine of the 79 (11%) of the smoked products sampled were not satisfactory when compared to the Health Protection Agency (HPA) guidelines for ready to eat food<sup>1</sup>. Of the pate results five of 37 (16%) samples taken from small producers and caterers for Survey SF16 were not satisfactory.

One sample, of smoked sea trout pate, contained an unacceptable, potentially hazardous level of *Listeria monocytogenes* bacteria.

#### **Background**

Previous survey work, and ad hoc sampling, by local authorities has suggested that the microbiological quality of pates and smoked products can be variable.

Survey SF11 aimed to establish an accurate overview of the situation and to establish any trends which can be used to inform hygiene enforcement in premises producing these foods.

Further anecdotal evidence and the early results of Survey SF11 suggested that more focussed attention was required on pates made by small scale producers and caterers. Survey SF16 aimed to concentrate on these products.

#### **Sampling and Examination**

During the period October 2006 to March 2007 110 samples of pates and smoked products were taken By Scottish Environmental Health Departments for Survey SF11. The sampling and examination protocol is shown in Annex 1. This was followed by 36 samples of pates made by small-scale producers and caterers being taken for Survey SF16 during the period April 2007 – September 2007. The sampling and examination protocol is shown in Annex 2.

All samples for each survey were logged on FSSnet (a computerised system which collect sampling and analysis data for local authority food samples) and were analysed by the Authorities' appointed Food Examiners. Samples for the surveys were evaluated, and reported, against the criteria outlined in the HPA Guidelines for the microbiological quality of some ready to eat foods sampled at point of sale and, in the case of *Listeria monocytogenes*, against the EU Microbiological Criteria<sup>2</sup>.

## Results

Summaries of the results for surveys SF11 and SF16 are shown in Annex 4 and Annex 5 respectively.

Twelve of the 76 samples (16%) of pate and nine of the 79 (11%) of the smoked products sampled were not satisfactory when compared to the Health Protection Agency (HPA) guidelines for ready to eat food<sup>1</sup>. Of the pate results five of 37 (16%) samples taken from small producers and caterers for Survey SF16 were not satisfactory.

One sample, of smoked sea trout pate, contained an unacceptable, potentially hazardous level of *Listeria monocytogenes* bacteria.

Tables 1 – 6 examine the results from surveys SF11 and SF16 in more detail. All samples were satisfactory for *E. coli* 0157, *Salmonella* spp, and *Campylobacter* spp

**Table 1 Analysis of pate results – Surveys SF11 and SF16**

HPA Category	TVC	Listeria monocytogenes	Escherichia coli	OVERALL
Satisfactory	65	75	74	64 (84%)
Acceptable	4	0	0	3 (4%)
Unsatisfactory	7	0	2	8 (11%)
Unacceptable	-	1	-	1 (1%)

**Table 2 Analysis of Smoked Food Results – Survey SF11**

HPA Category	TVC	Listeria monocytogenes	Escherichia coli	OVERALL
Satisfactory	72	78	78	70 (89%)
Acceptable	3	0	0	2 (3%)
Unsatisfactory	5	0	1	6 (8%)
Unacceptable	-	1	-	1 (1%)

**Table 3 Analysis of Results for Pates Containing Smoked Food – Survey SF11**

HPA Category	TVC	Listeria monocytogenes	Escherichia coli	OVERALL
Satisfactory	4	7	8	4 (50%)
Acceptable	1	0	0	0
Unsatisfactory	3	0	0	3 (37%)
Unacceptable	-	1	-	1 (13%)

**Table 4 Analysis of Pate Results – Survey SF16 (caterers and small producers)**

HPA Category	TVC	Listeria monocytogenes	Escherichia coli	OVERALL
Satisfactory	33	37	35	31 (84%)
Acceptable	1	0	0	1 (3%)
Unsatisfactory	3	0	2	4 (11%)
Unacceptable	-	0	-	0

**Table 5 Analysis of Results by description - Survey SF16 (caterers and small producers)**

Description	Satisfactory samples	Non-Satisfactory samples
Chicken based pate	25	5
Duck based pate	1	0
Other/unspecified pate	6	0

**Table 6 Analysis of Results by Food Category - Surveys SF11 and SF16**

Description	Satisfactory samples	Non-Satisfactory samples
Meat/poultry based pate	52	9
Fish based pate	6	3
Other/unspecified pate	6	0
Smoked fish	40	2
Smoked meat products	12	2
Smoked cheese	14	1

## Discussion

Most of the samples were of satisfactory microbiological quality. However a significant number of samples in each survey were not satisfactory.

The general quality of the smoked products in Survey SF11 was better than the pate samples in either Survey SF11 or SF16. Three of the seven smoked food products which were not satisfactory in Survey SF11 were pates. Indeed, half of the pates containing smoked food were not satisfactory; this included the smoked trout pate with an unacceptable *Listeria monocytogenes* result.

The general standard of the pate results in each survey was poorer. The failure rates in Surveys SF11 and SF16 were not significantly different. The surveys provide no evidence of a significant difference between the quality of pates from different types of outlet.

It is noticeable that, although sample numbers are lower, there appears to be a higher failure rate amongst (smoked) fish based pates in Survey SF11. The failure rates for meat-based pates in each survey are similar. Unfortunately no fish pates were taken for Survey SF16.

When considering the fish pate results it is interesting to note the high pass rate for samples of smoked fish which might suggest that the problems encountered with fish pates might be related to preparation and storage rather than ingredient quality.

It is apparent that the production, storage and use of smoked foods and, particularly, pates continue to require management and control. The survey results for fish pates suggest that the production and use of these products merits further study.

### **Recommendations**

- Officers inspecting businesses at all levels of the food industry should continue to monitor closely the production, storage and use of smoked foods and pates.
- Further study of the microbiological quality of fish pates is required. The results of this survey should be passed to SFELC's Fish Hygiene Working Group to inform a review of the production of fish pates.
- The results of the survey should also be passed to SFELC's Food Safety Sub-Committee for information.

### **References**

1. PHLS (HPA); Guidelines for the microbiological quality of some ready-to-eat foods sampled at the point of sale; *Communicable Disease and Public Health*; 2000: 3-3
2. EC Regulation No. 2073/2005 on Microbiological Criteria for Foodstuffs

**SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE  
FOOD STANDARDS SUB-COMMITTEE  
SURVEY NO: SF11**

**Microbiological quality of pates and smoked products  
Protocol**

**1 Summary**

Previous survey work, and ad hoc sampling, by local authorities has suggested that the microbiological quality of pates and smoked products can be variable.

This survey aims to establish an accurate overview of the situation and to establish any trends which can be used to inform hygiene enforcement in premises producing these foods.

All samples will be submitted via FSS. All Scottish authorities have access to FSS and, even if not routinely using the system, are asked to participate.

**2 Survey Period**

The survey period is 16 October 2006 – 31 March 2007. However, authorities wishing to submit samples before this date, perhaps to integrate with routine sampling, may do so.

**3 Participation**

All Liaison Groups are invited to participate in the survey.  
The minimum number of samples allocated to each Liaison Group is as follows:

<b>East of Scotland</b>	<b>20 samples</b>
<b>Lothian and Borders</b>	<b>20 samples</b>
<b>North of Scotland</b>	<b>20 samples</b>
<b>West of Scotland</b>	<b>40 samples</b>

**4 Resource Implications**

It is anticipated that the cost of this survey can be accommodated within normal sampling and analysis arrangements for each local authority.

**5 Sampling, Analysis and Reporting**

Sample Selection

Sampling officers be reminded to give their respective labs sufficient notice of submission of samples in order to prepare the appropriate equipment and media.

Samples should be taken from production premises or from retail premises where samples are available in an “as supplied” condition. Samplers should avoid samples which have been removed from original packaging and displayed “loose” for sale.

Suitable samples include:

- Meat or fish based pates
- Smoked meat and meat products
- Smoked fish and fish products
- Smoked cheese

Products which should not be sampled include:

- Vegetable pates
- Smoke flavour products
- Products containing pate or smoked food as an ingredient

#### Sample collection and transportation

See Annex 1.

#### Sample Submission

Sampling officers do not need to fill in a survey proforma.

However, **it is important that FSS is completed uniformly for this survey. The protocol summary advises on the required FSS input.**

#### Analysis and reporting

See Annex 2.

Samples will be reported to local authorities in the normal manner. Results should be **uploaded to the FSS central database by 1<sup>st</sup> May 2007.**

Samples for this survey should be evaluated, and reported, against the criteria outlined in the HPA “Guidelines for the microbiological quality of some ready to eat foods sampled at point of sale” and in the case of *Listeria monocytogenes* against the EU Microbiological Criteria.

**SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE  
FOOD STANDARDS SUB-COMMITTEE  
SURVEY NO: SF11**

**Protocol summary  
Microbiological quality of pates and smoked products**

- Samples** Suitable samples include
- Meat or fish based pates
  - Smoked meat and meat products
  - Smoked fish and fish products
  - Smoked cheese
- Products which should not be sampled include
- Vegetable pates
  - Smoke flavour products
  - Products containing pate or smoked food as an ingredient

At least 200g of product should be taken per sample.

**Sampling period** 15 October 2006 – 31 March 2007

**FSS**

- Input**
- **Reason for sample taken:** Surveillance/monitoring
  - Sample was taken as part of a survey
  - **Survey Body:** SFELC
  - **Survey Ref:** SF11
  - **Additional category information:**
    1. Enter "VAC" if the product is vacuum packed
    2. Enter "MAP" if the product is packed in a modified atmosphere
  - **Analysis required (as well as normal entry):**
    1. Enter "PROD" if sample taken from a producer
    2. Enter "RET" if sample taken from a retailer or caterer.
  - **Temperature:**
    1. Ensure the product temperature is recorded if chilled or frozen

**Analysis** TVC 30, E.coli, E.coli 0157, Salmonella spp, Campylobacter spp, Listeria monocytogenes and Listeria spp

**Pass/Fail** Samples for this survey should be evaluated, and reported, against the criteria outlined in the HPA "Guidelines for the microbiological quality of some ready to eat foods sampled at point of sale" and in the case of Listeria monocytogenes against the EU Microbiological Criteria

## **Annex 1 – Sampling Procedures**

### Initial Procedures

1. Pre-select premises from which samples are to be taken.
2. Ensure that the following equipment is available
  - Coolbox with ice-packs and bottle of water, or a suitable datalogger.
  - Labels
  - Sterile Bottles, Containers or Plastic Food Bags
  - Sterile scoop
  - Plastic Disposable Gloves
  - Calibrated thermometer

### Sample Collection Procedures

1. Samples should be taken using appropriate equipment to avoid the risk of contamination
2. Each sample should consist of at least 150 g of product. Samples may be placed into either sterile jars or food bags.
3. The sample container should be labelled in accordance with the requirements of the laboratory being used.
4. Samples should be placed in a coolbox and delivered to the laboratory as soon as possible, and preferably, under normal circumstances, no later than 6 hours after sampling.

### Transportation of Samples

Samples should be transported in an insulated coolbox capable of operating at a temperature of 1-8°C.

1. Pre-cool the insulated box in a refrigerator for at least 1 hour (preferably overnight). Place a small screw-capped bottle of water, or a datalogger, within the coolbox.
2. Load with sufficient ice packs to ensure adequate cooling.
3. Once samples are delivered to the laboratory, the internal temperature of the coolbox should be measured by placing the thermometer in the bottle of water. The temperature should be recorded on the sample form before the samples are handed over. This step is not required if a datalogger is used.
4. Where samples are delivered to the laboratory by a third party, the coolbox should be clearly marked to indicate that the temperature should be recorded on site by laboratory personnel, and that the coolbox should not be opened by office staff. Again, this step is not required if a datalogger is used.

## **Annex 2 -Microbiology Laboratory Protocol**

### **Sample Preparation**

Using a suitable sterile implement, aseptically weigh a representative portion of the sample into a sterile stomacher bag or other equivalent sterile homogenisation system. Add by weight (to the nearest gram), sufficient sterile diluent to create a 1:10 suspension.

The homogenate prepared in sterile diluent is the primary ( $10^{-1}$ ) sample suspension. A dilution should be prepared by adding 1ml of the homogenised primary sample solution to a bottle containing 9ml of sterile diluent. This is the secondary dilution ( $10^{-2}$ ). This process should be continued until sufficient dilution of the sample has taken place. Use the primary decimal dilution and/or further decimal dilutions thereof to inoculate the appropriate media as described in the following enumeration methods.

### **TVC 30**

Samples should be examined using the spread plate method described in ISO 4833/1991. This method requires the preparation of a series of spread plates using decimal dilutions of the sample. Plate Count Agar should be used and plates should be incubated at 30°C for 3 days and then counted. Alternatively any equivalent method may be used. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10^2 - 10^8$ /gm.

### **E.coli**

Samples should be examined in accordance with the method described in BS 5763: Part 13 (1995) (Enumeration of E.coli using membranes). Alternatively any equivalent accredited method may be used. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10 - 10^4$  /gm.

### **Listeria monocytogenes and Listeria spp**

Samples should be examined in accordance with the methods described in BS ISO 11290 Parts 1 and 2 or equivalent accredited method. All isolates of *Listeria monocytogenes* should be sent to the Food Safety Microbiology Reference Laboratory at Colindale for further typing. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10-10^3$ /gm.

### **E.coli 0157**

Samples should be examined in accordance with the method described in BS EN ISO 166544 (2001) or equivalent accredited method. All isolates should be sent to the Scottish E.coli Reference Laboratory for typing.

### **Salmonella spp**

Samples should be examined using the method described in BS EN ISO 6579:2002, or a suitable UKAS accredited method. All isolates of Salmonella should be sent to the Scottish Salmonella reference laboratory for typing.

### **Campylobacter spp**

Samples should be examined in accordance with the method described in BS EN ISO 10272-1:2006 or any equivalent accredited method.

All isolates of Campylobacter spp. should be sent without delay to the Laboratory of Enteric Pathogens(LEP) at the HPA Specialist and Reference Microbiology Division(SRMD) Colindale, for confirmation, antibiotic sensitivity and typing as appropriate AND to Dr Ken Forbes, Medical Microbiology, Aberdeen University, Polwarth Building, Medical School, Foresterhill, Aberdeen AB25 2ZD for MLST typing as requested by FSA Scotland.

**SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE  
FOOD STANDARDS SUB-COMMITTEE  
SURVEY No SF16**

**Microbiological quality of pates  
made by small scale producers and caterers**

**Protocol**

**1 Summary**

Previous survey work, FSA Scotland research projects and ad hoc sampling, by local authorities has suggested that the microbiological quality of pates and smoked products can be variable.

There is some evidence that pates made, on the premises, by caterers and small scale manufacturers such as local butchers may not be adequately cooked. Such products have recently been implicated in cases of campylobacter infection.

This survey aims to build on previous work to establish an accurate overview of the situation and to establish any trends which can be used to inform hygiene advice and enforcement in premises producing these foods.

All samples will be submitted via FSS. All Scottish authorities have access to FSS and, even if not routinely using the system, are asked to participate.

**2 Survey Period**

The survey period is April 2007 - September 2007.

**3 Participation**

All Liaison Groups are invited to participate in the survey.  
The minimum number of samples allocated to each Liaison Group is as follows

<b>East of Scotland</b>	<b>20 samples</b>
<b>Lothian and Borders</b>	<b>20 samples</b>
<b>North of Scotland</b>	<b>20 samples</b>
<b>West of Scotland</b>	<b>40 samples</b>

**4 Resource Implications**

It is anticipated that the cost of this survey can be accommodated within normal sampling and analysis arrangements for each local authority.

**5 Sampling, Analysis and Reporting**

**Sample Selection**

Sampling officers are reminded to give their respective labs sufficient notice of submission of samples in order to prepare the appropriate equipment and media.

Samples should be taken from caterers and small scale manufacturers who produce and sell pate from their own premises. NB National brands and products sold through supermarket chains are not required for testing.

Samples should be of meat and poultry pates. Fish and vegetable pates, as well as products containing pate as an ingredient, should not be sampled

#### Sample collection and transportation

See Annex 1.

#### Sample Submission

Sampling officers do not need to fill in a survey proforma.

However, **it is important that FSS is completed uniformly for this survey. The protocol summary advises on the required FSS input.**

#### Analysis and reporting

See Annex 2.

Samples will be reported to local authorities in the normal manner. Results should be **uploaded to the FSS central database by 1<sup>st</sup> November 2007.**

Samples for this survey should be evaluated, and reported, against the criteria outlined in the HPA "Guidelines for the microbiological quality of some ready to eat foods sampled at point of sale" and in the case of *Listeria monocytogenes* against the EU Microbiological Criteria.

**SCOTTISH FOOD ENFORCEMENT LIAISON COMMITTEE  
FOOD STANDARDS SUB-COMMITTEE  
SURVEY NO: SF16**

**Protocol summary**

**Microbiological quality of pates  
made by small scale producers and caterers**

**Samples** Samples should be taken from caterers and retailers who **produce** meat or poultry based pate on their own premises

Suitable premises include

- Restaurants
- Canteens
- Butchers
- Sandwich shops
- Delicatessens
- Caterers
- Farmers markets

Suitable samples include

- Pork pate
- Chicken pate
- Duck
- Game pate

Products which should not be sampled include

- Vegetable pates
- Fish pate
- Products containing pate or smoked food as an ingredient

At least 200g of product should be taken per sample.

**Sampling period** April – September 2007

**FSS Input**

- **Reason for sample taken:** Surveillance/monitoring
- Sample was taken as part of a survey
- **Survey Body:** SFELC
- **Survey Ref:** SF16
- **Temperature:**
  - Ensure the product temperature is recorded if chilled or frozen

**Analysis** TVC 30, E.coli, Salmonella spp, Campylobacter spp, Listeria monocytogenes and Listeria spp

**Pass/Fail** Samples for this survey should be evaluated, and reported, against the criteria outlined in the HPA “Guidelines for the microbiological quality of some ready to eat foods sampled at point of sale” and in the case of Listeria monocytogenes against the EU Microbiological Criteria

## **Annex 1 – Sampling Procedures**

### Initial Procedures

1. Pre-select premises from which samples are to be taken.
2. Ensure that the following equipment is available
  - Coolbox with ice-packs and bottle of water, or a suitable datalogger.
  - Labels
  - Sterile Bottles, Containers or Plastic Food Bags
  - Sterile scoop
  - Plastic Disposable Gloves
  - Calibrated thermometer

### Sample Collection Procedures

1. Samples should be taken using appropriate equipment to avoid the risk of contamination
4. Each sample should consist of at least 150 g of product. Samples may be placed into either sterile jars or food bags.
5. The sample container should be labelled in accordance with the requirements of the laboratory being used.
4. Samples should be placed in a coolbox and delivered to the laboratory as soon as possible, and preferably, under normal circumstances, no later than 6 hours after sampling.

### Transportation of Samples

Samples should be transported in an insulated coolbox capable of operating at a temperature of 1-8°C.

1. Pre-cool the insulated box in a refrigerator for at least 1 hour (preferably overnight). Place a small screw-capped bottle of water, or a datalogger, within the coolbox.
2. Load with sufficient ice packs to ensure adequate cooling.
4. Once samples are delivered to the laboratory, the internal temperature of the coolbox should be measured by placing the thermometer in the bottle of water. The temperature should be recorded on the sample form before the samples are handed over. This step is not required if a datalogger is used.
4. Where samples are delivered to the laboratory by a third party, the coolbox should be clearly marked to indicate that the temperature should be recorded on site by laboratory personnel, and that the coolbox should not be opened by office staff. Again, this step is not required if a datalogger is used.

## **Annex 2 -Microbiology Laboratory Protocol**

### **Sample Preparation**

Using a suitable sterile implement, aseptically weigh a representative portion of the sample into a sterile stomacher bag or other equivalent sterile homogenisation system. Add by weight (to the nearest gram), sufficient sterile diluent to create a 1:10 suspension.

The homogenate prepared in sterile diluent is the primary ( $10^{-1}$ ) sample suspension. A dilution should be prepared by adding 1ml of the homogenised primary sample solution to a bottle containing 9ml of sterile diluent. This is the secondary dilution ( $10^{-2}$ ). This process should be continued until sufficient dilution of the sample has taken place. Use the primary decimal dilution and/or further decimal dilutions thereof to inoculate the appropriate media as described in the following enumeration methods.

### **TVC 30**

Samples should be examined using the spread plate method described in ISO 4833/1991. This method requires the preparation of a series of spread plates using decimal dilutions of the sample. Plate Count Agar should be used and plates should be incubated at 30°C for 3 days and then counted. Alternatively any equivalent method may be used. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10^2 - 10^8$ /gm.

### **E.coli**

Samples should be examined in accordance with the method described in BS 5763: Part 13 (1995) (Enumeration of E.coli using membranes). Alternatively any equivalent accredited method may be used. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10 - 10^4$  /gm.

### **Listeria monocytogenes and Listeria spp**

Samples should be examined in accordance with the methods described in BS ISO 11290 Parts 1 and 2 or equivalent accredited method. All isolates of *Listeria monocytogenes* should be sent to the Food Safety Microbiology Reference Laboratory at Colindale for further typing. Whichever method is used it is important to use a procedure which will allow counts to be made in the range  $10-10^3$ /gm.

### **Salmonella spp**

Samples should be examined using the method described in BS EN ISO 6579:2002, or a suitable UKAS accredited method. All isolates of Salmonella should be sent to the Scottish Salmonella reference laboratory for typing.

### **Campylobacter spp**

Samples should be examined in accordance with the method described in BS EN ISO 10272-1:2006 or any equivalent accredited method.

All isolates of Campylobacter spp. should be sent without delay to the Laboratory of Enteric Pathogens(LEP) at the HPA Specialist and Reference Microbiology Division(SRMD) Colindale, for confirmation, antibiotic sensitivity and typing as appropriate AND to Dr Ken Forbes, Medical Microbiology, Aberdeen University, Polwarth Building, Medical School, Foresterhill, Aberdeen AB25 2ZD for MLST typing as requested by FSA Scotland.

Survey SF 11 results

Annex 4

SAMPLENO	DESCRIPTION	CATEGOR Y	COUNTRY	SATISFACTORY	LABCOMMENTS	PATE	SMOKED
776HQ06430000871	SMOKED SALMON PATE	08.02.07.01	UK	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.	y	y
776HQ06430000873	BRADAN ROST PATE	08.02.07.01	UK	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.	y	y
785HQS20000067	SMOKED SEA TROUT PATE	08.02.07.01	UK	FALSE	Listeria monocytogenes level was unacceptable and potentially hazardous. Colony Count at 30Å°C was acceptable.	y	y
782HQN20001003	COARSE COUNTRY PORK PATE	14.02.07.03	FRANCE	FALSE	Colony Count at 30Å°C was unsatisfactory.	y	y
776HQ06430000872	SMOKED MACKEREL PATE	08.02.07.01	UK	TRUE		y	y
784HQ06260000268	ROASTED SMOKED SALMON PATE	08.02.07.01	UK	TRUE		y	y
790HQ04850000370	BRADAN ROAST PATE	08.02.07.01	UK	TRUE		y	y
786HQ05900000325	SMOKED DUCK PATE	14.05.04.99	UK	TRUE		y	y
762M2LT10000157	ORIGINAL FRENCH COARSE PATE	14.02.07.03	UK	FALSE	Aerobic Colony Count at 30 degrees centigrade was acceptable.	y	
771HQN20000180	SMOOTH PORK LIVER PATE	14.02.07.03	UK	FALSE	Aerobic Colony Count at 30Å°C was acceptable.	y	
790HQ04850000371	BRUSSELS PATE	14.02.07.03	UK	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.	y	
766HQ03490000729	LUXURY ORKNEY CRAB PATE	08.02.07.01	UK	TRUE		y	
770DGKN10000565	LUXURY ORKNEY CRAB PATE	08.02.07.01	UK	TRUE		y	
787HQ04960000430	LUXURY ORKNEY CRAB PATE	08.02.07.01	UK	TRUE		y	
771HQN20000178	DUCK & ORANGE PATE	14.02.07.03	UK	TRUE		y	
765HQ06080000281	BRUSSELS PATE	14.02.07.03	BELGIUM	TRUE		y	
772HQ05110000362	BRUSSELLS PATE	14.02.07.03	BELGIUM	TRUE		y	

772HQ05110000363	ARDENNES PATE	14.02.07.03	BELGIUM	TRUE		y	
772HQ05110000415	BRUSSELS PATE	14.02.07.03	BELGIUM	TRUE		y	
772HQ05110000416	SMOOTH CHICKEN LIVER PATE	14.02.07.03	BELGIUM	TRUE		y	
774HQ05830000307	REDUCED FAT BRUSSELS PATE	14.02.07.03	BELGIUM	TRUE		y	
782HQN20001002	DUCK ORANGE PATE	14.02.07.03	BELGIUM	TRUE		y	
783IRON05890000291	CHICKEN LIVER PATE	14.02.07.03	BELGIUM	TRUE		y	
764HQ0407000354	ARDENNES PATE	14.02.07.03	CZECH REPUBLIC	TRUE		y	
774HQ05830000308	PATE DE FOIE	14.02.07.03	FRANCE	TRUE		y	
774HQ05830000309	PATE DE CAMPAGNE	14.02.07.03	FRANCE	TRUE		y	
782HQN20001001	ARDENNES PORK PATE	14.02.07.03	N/A	TRUE		y	
762FHQLB10000197	PORK AND SWEET ONION PATE	14.02.07.03	UK	TRUE		y	
762FHQLB10000208	ARDENNES	14.02.07.03	UK	TRUE		y	
762M2IRF010000214	SMOOTH BRUSSELS PATE	14.02.07.03	UK	TRUE		y	
765HQ06080000269	CHICKEN LIVER PATE	14.02.07.03	UK	TRUE		y	
765HQ06080000282	CHICKEN LIVER PATE	14.02.07.03	UK	TRUE		y	
772HQ05110000399	TESCO SMOOTH BRUSSEL PATE	14.02.07.03	UK	TRUE		y	
772HQ05110000400	TESCO COARSE ARDENNE PATE WITH BACON	14.02.07.03	UK	TRUE		y	
775DUN0000453	DUCK AND ORANGE PATE	14.02.07.03	UK	TRUE		y	
784HQ06260000267	CHICKEN LIVER PATE	14.02.07.03	UK	TRUE		y	
784HQ06260000314	CHICKEN LIVER PATE	14.02.07.03	UK	TRUE		y	
787HQ04960000429	REDUCED FAT PATE	14.02.07.03	UK	TRUE		y	
773HQN20002625	BRUSSELS PATE A SMOOTH PORK LIVER PATE	14.02.08.99	UK	TRUE		y	

776HQ06430000900	UNPASTEURISED SMOKED LANCASHIRE CHEESE	05.02.01.01	UK	FALSE	Escherichia coli level was unsatisfactory.	y
769HQN20000832	SCOTTISH SMOKED WHITING BLOCK	08.02.11.01	UK	FALSE	Aerobic Colony Count at 30Å°C was acceptable.	y
770DGKN10000563	MARRBURY AULD SCOTS SMOKED SALMON	08.02.11.01	UK	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.	y
786HQ05900000324	SMOKED CHICKEN	14.05.04.01	UK	FALSE	Aerobic Colony Count at 30 degrees centigrade was acceptable.	y
766HQ03490000730	SMOKED CHICKEN	14.05.04.01	UK	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.	y
775CUPN10000180	SMOKED CHEESE	05.02.01.01	N/A	TRUE		y
770DGKN10000564	SMOKED CHEESE	05.02.01.01	UK	TRUE		y
775DUN0000452	SMOKED CHEDDAR	05.02.01.01	UK	TRUE		y
766HQ03490000731	MATURE CHEDDAR OAK SMOKED NATURALLY	05.02.01.02	UK	TRUE		y
769HQN20000831	SMOKED DUTCH NATURAL CHEESE	05.02.01.02	UK	TRUE		y
785HQS20000068	SMOKED CHEESE	05.02.01.02	UK	TRUE		y
760COMN10001613	AUSTRIAN SMOKED CHEESE	05.02.05.02	AUSTRIA	TRUE		y
761Z0105620000454	AUSTRIAN SMOKED CHEESE	05.02.05.02	AUSTRIA	TRUE		y
764HQ0407000357	AUSTRIAN SMOKED CHEESE	05.02.05.02	AUSTRIA	TRUE		y
764HQ0407000355	BAVARIAN SMOKED CHEESE	05.02.05.02	GERMANY	TRUE		y
775DUN0000450	10 SMOKED CHEESE SLICES	05.02.05.02	UK	TRUE		y
768HQ0503000072	BAVARIAN SMOKED CHEESE SLICES	05.02.05.99	UK	TRUE		y
773HQN20002627	BAVARIAN SMOKED CHEESE	05.02.05.99	UK	TRUE		y

773HQN20002633	AUSTRIAN SMOKED CHEESE	05.02.05.99	UK	TRUE			y
773HQN20002626	SMOKED COD FILLETS	08.02.01.01	UK	TRUE			y
773HQN20002632	SMOKED SCOTTISH PEPPERED MACKEREL FILLETS	08.02.01.01	UK	TRUE			y
782HQN20001000	SMOKED PEPPERED MACKEREL	08.02.11.01	N/A	TRUE			y
760COMN10001583	COLD SMOKED HADDOCK FILLET	08.02.11.01	UK	TRUE			y
760COMN10001584	SMOKED SALMON (HOT SMOKED)	08.02.11.01	UK	TRUE			y
760COMN10001610	PEPPERED MACKEREL FILLETS	08.02.11.01	UK	TRUE			y
760COMN10001611	PEPPERED MACKEREL FILLETS	08.02.11.01	UK	TRUE			y
761Z0405620000476	OAK SMOKED SALMON	08.02.11.01	UK	TRUE			y
761Z0405620000477	HONEY ROAST SMOKED SALMON	08.02.11.01	UK	TRUE			y
761Z0405620000478	SMOKED HADDOCK	08.02.11.01	UK	TRUE			y
761Z0605620000460	HOT SMOKED SALMON	08.02.11.01	UK	TRUE			y
761Z0605620000461	SMOKED MACKEREL	08.02.11.01	UK	TRUE			y
761Z0605620000462	SMOKIE	08.02.11.01	UK	TRUE			y
761Z0605620000463	KIPPER	08.02.11.01	UK	TRUE			y
761Z0605620000464	SMOKED MACKEREL	08.02.11.01	UK	TRUE			y
762M2IRF010000212	ARBROATH SMOKED SALMON	08.02.11.01	UK	TRUE			y
762M2LT10000158	SMOKED SALMON	08.02.11.01	UK	TRUE			y
762M2LT10000167	ARBROATH SMOKED TROUT	08.02.11.01	UK	TRUE			y
764HQ0407000353	SMOKED SCOTTISH MACKEREL STRIPS	08.02.11.01	UK	TRUE			y
766HQ03490000728	SMOKED HADDOCK	08.02.11.01	UK	TRUE			y
768HQ05030000071	FLAKY SMOKED SALMON	08.02.11.01	UK	TRUE			y

768HQ0503000073	NATURAL SMOKED HADDOCK	08.02.11.01	UK	TRUE			y
769HQN20000830	SCOTTISH SMOKED MACKEREL FILLETS	08.02.11.01	UK	TRUE			y
770DGKN10000562	OAK SMOKED SALMON	08.02.11.01	UK	TRUE			y
771HQN20000177	ARBROATH HOT SMOKED SALMON FLAKES	08.02.11.01	UK	TRUE			y
773HQN20002628	UNDYED SMOKED HADDOCK	08.02.11.01	UK	TRUE			y
773HQN20002629	THINLY SLICED SMOKED SCOTTISH SALMON	08.02.11.01	UK	TRUE			y
784HQ06260000269	HOT SMOKED SALMON	08.02.11.01	UK	TRUE			y
784HQ06260000270	COLD SMOKED SALMON	08.02.11.01	UK	TRUE			y
786HQ05900000321	SALMON PORTIONS (HOT KILN SMOKED)	08.02.11.01	UK	TRUE			y
786HQ05900000323	SMOKED MACKEREL FILLETS	08.02.11.01	UK	TRUE			y
787HQ04960000428	SWEET CURED SMOKED SALMON	08.02.11.01	UK	TRUE			y
787HQ04960000431	TROUT FILLETS	08.02.11.01	UK	TRUE			y
775CUPN10000181	SMOKED SALMON	08.02.99.99	UK	TRUE			y
789HQ05850000288	SMOKED HADDOCK	08.02.99.99	UK	TRUE			y
789HQ05850000289	HOT SMOKED MACKEREL	08.02.99.99	UK	TRUE			y
789HQ05850000290	KIPPERS	08.02.99.99	UK	TRUE			y
789HQ05850000291	SALMON	08.02.99.99	UK	TRUE			y
789HQ05850000292	SMOKED SALMON	08.02.99.99	UK	TRUE			y
789HQ05850000293	SMOKED HADDOCK	08.02.99.99	UK	TRUE			y
773HQN20002630	APPLEWOOD SMOKED PORK LION	14.01.03.01	UK	TRUE			y
775KDYN10003307	GARLIC SMOKED PORK SAUSAGE	14.02.01.02	HOLLAND	TRUE			y

769HQN20000829	GARLIC SMOKED PORK SAUSAGE	14.02.01.02	UK	TRUE			y
775KDYN10003308	SMOKED PORK SAUSAGE	14.02.01.06	HOLLAND	TRUE			y
760COMN10001612	SMOKED PORK SAUSAGE	14.02.01.06	NETHERLANDS	TRUE			y
771HQN20000181	SMOKED TURKEY SALAMI	14.02.01.07	UK	TRUE			y
773HQN20002631	OAK SMOKED DRY CURE HAM	14.02.04.99	UK	TRUE			y
762M2LT10000168	POLISH SOPOCKA	14.02.05.02	UK	TRUE			y
765HQ06080000280	SMOKED HAM	14.02.05.04	UK	TRUE			y
775DUN0000451	WAFER THIN SMOKED HAM	14.02.05.04	UK	TRUE			y
783IRON05890000290	SMOKED WILD VENISON	14.03.99.99	UK	TRUE			y
761Z0105620000452	SMOKED CHICKEN BREAST WITH BONE	14.05.04.01	GERMANY	TRUE			y

Survey SF16 Results

Annex 5

SAMPLENO	DECSRPTION	CATEGORY	TEMP (°C)	SATISFACTORY	LABCOMMENTS
761Z0105620000889	CHICKEN LIVER PATE	14.05.06.03	3.8	FALSE	Colony Count at 30Å°C was unsatisfactory.
761Z0105620000894	CHICKEN LIVER PATE	14.05.06.03	3.5	FALSE	Esherichia coli and Colony Count at 30Å°C were unsatisfactory.
761Z0105620000895	CHICKEN LIVER & MUSHROOM PATE	14.05.06.03	4.5	FALSE	Colony Count at 30Å°C was acceptable
764HQ04070000976	CHICKEN LIVER PATE	14.05.06.03	4	FALSE	Aerobic Colony Count at 30Å°C was unsatisfactory.
77306210000792	CHICKEN LIVER	14.02.07.03	8	FALSE	Escherichia coli level was unsatisfactory.
790HQ04850000663	CHICKEN LIVER PATE	14.05.06.03	-14	TRUE	
760COMN10002046	CHICKEN LIVER PATE	14.05.06.03	0	TRUE	
760COMN10002050	CHICKEN LIVER PATE	14.05.06.03	0	TRUE	
784HQ06260000515	CHICKEN LIVER PATE	14.05.06.03	4	TRUE	
784HQ06260000516	CHICKEN LIVER PATE	14.05.06.03	4	TRUE	
761Z0105620000893	CHICKEN LIVER PATE	14.05.06.03	6.7	TRUE	
764HQ04070000974	CHICKEN LIVER PATE	14.05.06.03	1.8	TRUE	
764HQ04070000975	CHICKEN LIVER PATE	14.05.06.03	2	TRUE	
766HQ03490001410	DUCK PATE	14.05.06.03	3.4	TRUE	
766HQ03490001412	CHICKEN LIVER PATE	14.05.06.03	3	TRUE	
766HQ03490001413	CHICKEN LIVER PATE	14.05.06.03	2.7	TRUE	
767206140000426	PATE	14.05.04.99	0	TRUE	
77306210000617	CHICKEN PARFAIT	14.05.04.01	4	TRUE	
77306210000618	CHICKEN LIVER PARFAIT	14.05.04.01	4	TRUE	
768HQ05030000123	PORK AND GAME PATE	14.02.08.99	0	TRUE	
790HQ04850000661	CHICKEN LIVER PATE	14.02.07.03	5	TRUE	
790HQ04850000662	CHICKEN LIVER PATE WITH FOIE GRAS	14.02.07.03	5	TRUE	
77306210000665	CHICKEN LIVER PATE	14.02.07.03	6	TRUE	
760COMN10002048	PATE	14.02.07.03	0	TRUE	
760COMN10002049	MEAT PREPARATION	14.02.07.03	0	TRUE	
766HQ03490001411	PATE	14.02.07.03	2.5	TRUE	

771HQ06230000333	CHICKEN LIVER PATE	14.02.07.03	0	TRUE	
771HQ06230000334	CHICKEN LIVER PATE	14.02.07.03	0	TRUE	
771HQ06230000335	CHICKEN LIVER PATE	14.02.07.03	0	TRUE	
77306210000666	CHICKEN LIVER PATE	14.02.07.03	6	TRUE	
77306210000819	CHICKEN LIVER	14.02.07.03	-19	TRUE	
77306210000868	CHICKEN LIVER PATE	14.02.07.03	6	TRUE	
77306210000875	CHICKEN LIVER PARFAIT	14.02.07.03	3	TRUE	
782HQ06900000303	CHICKEN LIVER PATE	14.02.07.03	6	TRUE	
782HQ06900000304	CHICKEN LIVER PATE	14.02.07.03	7	TRUE	
782HQ06900000313	PATE	14.02.07.03	5	TRUE	
782HQ06900000314	CHICKEN LIVER PATE	14.02.07.03	5	TRUE	