



**Summary report of LA activity  
and key findings from  
imported food sampling and  
surveillance grants  
2003/04**

## 1 Background to the initiative

- 1.1 As part of the Agency work to achieve a Step Change improvement in imported food controls, £600,000 funding was made available in 2003/04 for Port Health Authorities (PHAs) and Local Authorities (LAs) to carry out additional sampling and surveillance of imported food.
- 1.2 A process was set up to focus this work. It had to be completed within 2003/04 as part of the Step Change programme and there was therefore a need to get funds to PHAs and LAs quickly and fairly. The process was agreed in principle by a newly formed LACORS/Agency Sampling Co-ordination Working Group at a meeting in July 2003. The Group, drawn from the FSA, APA, LACORS, FSA, LAs, Defra, APHA and HPA, also considered priorities put forward by key stakeholders and agreed on four key priorities for enhanced imported food sampling and surveillance. However, the Group acknowledged that more sampling and surveillance generally was needed on all types of imported food to help inform future programmes.
- 1.3 Bids from PHAs and LAs were considered by an Assessment Panel in October 2003 against success criteria for the initiative, with the overarching objective that work should improve overall food sampling and surveillance for imported food generally and provide better information to assist in future sampling programmes. Bids were expected to utilise local knowledge about imported food priorities as well as consider the priority areas for attention agreed by the Sampling Co-ordination Working Group. Key evaluation criteria were that bids should demonstrate added value, set out the scope of their proposal, ensure full laboratory liaison and capacity as well as agreeing to the production of a short evaluation report and appropriate follow-up of problems found. The Panel recommended that 47 bids, representing over 100 authorities, should receive funding. In total, £250k was made available to PHAs and £350k to LAs.

**Table 1: Authorities receiving funding, by Authority type**

LA/PHA Type	Number of Successful Applications
County	9
District	3
Unitary	6
Metropolitan	3
London Borough	5
Liaison/Regional Groups	10
PHA	11
<b>TOTAL</b>	<b>47</b>

- 1.4 Given that many PHAs and LAs would have already committed their sampling and surveillance budgets for the financial year the additional resources enabled a greater focus on imported food to be achieved in-year, i.e. before the end of March 2004. As part of the process, the Agency has also reminded UK LAs to place greater emphasis on

imported food sampling when setting their own sampling programmes for the future.

- 1.5 PHAs and LAs carried out sampling between November 2003 and March 2004 and were required to report on findings by 15 March 2004. Because of the tight timescales of the project, this proved difficult in some cases and a handful of results are still outstanding but these are on such a small scale that they will not materially change the overall findings of the project.
- 1.6 Generally speaking, there has been a high level of commitment from those LAs and PHAs involved in the project, meeting challenging deadlines for reporting the results and committing to follow up action where appropriate.

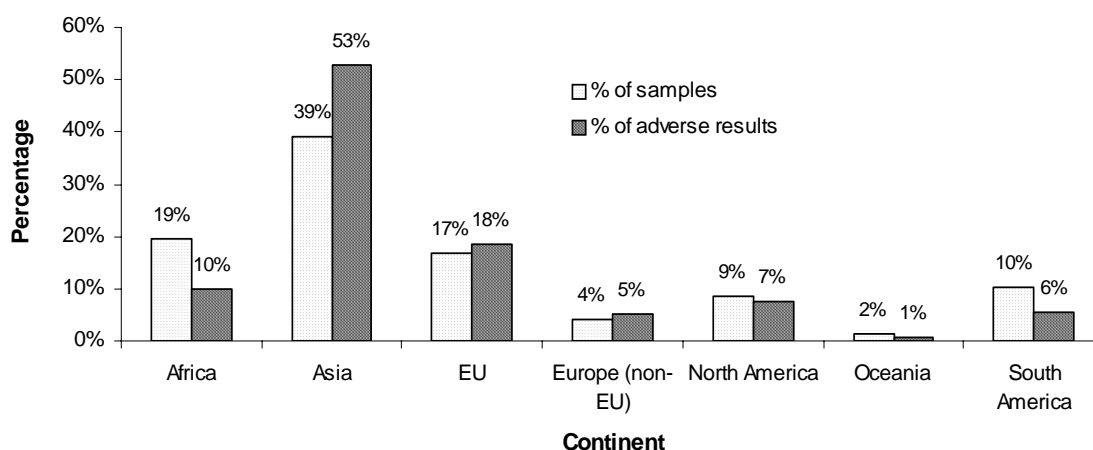
## 2 Summary of findings

- A total of 11 Port Health Authorities and 99 Local Authorities throughout the UK were involved in this initiative.
- A total of 4,427 samples were submitted for chemical analysis and/or microbiological examination. Of the tests carried out, about four-fifths (79 per cent) were for chemical analyses and just over one fifth (21 per cent) for microbiological examination.
- Of the samples taken, 1,488 were taken as formal samples and 2,939 as informal samples.
- The overall failure rate of samples was 12 per cent, with a 13 per cent failure on chemical analyses and a 3 per cent failure on microbiological examination.
- Of the top ten countries in terms of overall sample numbers, those with the highest failure rates were Bangladesh (29 per cent of 122 samples), Pakistan (25 per cent of 141 samples), China (15 per cent of 221 samples) and India (15 per cent of 357 samples).
- The countries with the highest failure rates overall were South Korea (45 per cent of 22 samples), Hong Kong (33 per cent of 27 samples), the Philippines (33 per cent of 27 samples) and Iran (30 per cent of 40 samples).
- The most sampled food category was “fruit and vegetables”, with 1,620 samples taken, mostly looking for pesticide residues, but with a relatively low failure rate of 5 per cent.
- “Confectionery” was the food category with the highest failure rate at 46 per cent of 193 samples.
- The most analysed area was for pesticide residues, with 942 samples analysed, but with a relatively low failure rate of 3 per cent.
- The labelling and meat content of tinned meat had the highest failure rate by broad analytical area at 37 per cent of 133 samples.
- Of 193 samples taken for additional water in chicken, there was a 25 per cent failure rate.
- In addition to the sampling carried out, 822 premises were visited by Authorities as part of their general surveillance.
- Appropriate follow up action has been taken and further action is being considered by all relevant Authorities.
- The Agency is considering further follow up action in relevant cases

### 3 Country of origin of samples taken

3.1 The samples tested included foods originated from 110 countries of which 20 were EU or EU-accession states. 85 per cent of samples taken were from third countries. The chart below illustrates the proportion of samples taken by continent, where the country of origin was known, and the percentage of adverse results from each continent.

**Chart 1: Continent of origin of samples and adverse results**



3.2 There appears to be a disparity in some cases between the number of samples taken and the percentage returning adverse results, with Asia returning a high level of adverse results and Africa and South America returning a lower level. On the face of it, this would suggest that any sampling of imported food during 2004/05 could consider focussing sampling by country of origin. However, the country of origin was not known for 283 (6 per cent) of the samples taken and these could have some effect on the picture above.

3.3 Although samples were taken of products from a great variety of countries, nearly half (46 per cent) of samples were taken from just ten countries.

**Table 2: Top ten countries of origin of samples**

Country	Number of samples submitted for testing	Percentage of samples returning adverse results
India	357	15 %
South Africa	314	6 %
Thailand	234	12 %
China	221	15 %
United States	186	11 %
Brazil	161	9 %
Pakistan	141	25 %
Kenya	139	7 %
Egypt	130	6 %
Bangladesh	122	29 %

- 3.4 However, when looking solely at failure rates, the ten countries with the highest percentage failure rates (excluding countries of origin where less than 20 samples were taken) changes.

**Table 3: Top ten countries by failure rates**

Country	Number of samples submitted for testing	Percentage of samples returning adverse results
South Korea	22	45 %
Hong Kong	27	33 %
Philippines	27	33 %
Iran	40	30 %
Bangladesh	122	29 %
Pakistan	141	25 %
Netherlands	70	24 %
Denmark	50	22 %
Jamaica	20	20 %
China	221	15 %

- 3.5 In itself, this information does not highlight individual problems, but helps in looking at whether products from particular countries are less likely to comply with UK regulations than others.
- 3.6 Generally, some of the highest failure rates came from countries where relatively few samples were taken (South Korea, Hong Kong, the Philippines and Jamaica) and the adverse results from these came in the main from labelling irregularities. However, cases of excess 3-MCPD were found in products from Hong Kong, for example, and formal follow up action is being taken by the Authority concerned.
- 3.7 Similarly, there were cases of products from Iran and Bangladesh, where products of animal origin were not being labelled as such which resulted in formal notices under Section 24 (2) of the POAO Regulations being issued. Products from Bangladesh were found with microbiological contamination and labelling problems relating to imported pickles. The former resulted in a national Food Hazard Warning and product recall, and the latter has resulted in checks on further products and a letter to the importers concerned.
- 3.8 The relatively high number of samples from Pakistan covered a wide variety of analyses, with preserves and herbs and spices featuring highly on the food types looked at. A FHW resulted from a positive Sudan 1 finding, whilst some preserves were found which had unsubstantiated medicinal claims where the Authority is currently liaising with the importer with a view to formal action. Some informal sample results of excess colours in herbs and spices are also being followed up with formal sampling.
- 3.9 The adverse results from China mostly related to the irregular labelling of confectionery products and the Authorities involved are liaising with the

importers over these issues. A case of excessive pesticide residue found on pears imported from China resulted in an EU Rapid Alert being generated.

- 3.10 It is interesting to note products from two EU countries, Denmark and the Netherlands, appear on this list where relatively high failure rates were found. Whilst technically foods from these EU countries are not classed as imported foods and are not checked at ports of entry, some inland Local Authorities did look at some EU products as part of this work. It is not clear at this stage whether the products are actually of EU origin, as opposed to originating in third country for manufacture in Denmark and the Netherlands. The main problem with products from the Netherlands related to excessive added water in chicken, whilst adverse results on products from both countries were found to relate to the labelling and meat content of cooked meat products. Investigations are ongoing by the Authority involved into the latter problems, whilst the Agency is further co-ordinating the water in chicken findings from this programme as part of its wider interest in this problem.

#### 4 The categories of food looked at

- 4.1 Authorities were asked to report on the overall number of samples taken by food category. The categories were consistent with those used by Authorities under their reporting requirements for the Framework Agreement.
- 4.2 Of the 18 food categories, 86 per cent of samples taken were from just 6 categories.

**Table 4: The most sampled foods by category**

Category	Number of samples taken	Failure Rate
Fruit and Vegetables	1620	5 %
Herbs and Spices	835	9 %
Fish and Shellfish	556	13 %
Meat, Game and Poultry	508	19 %
Soups, broths and sauces	199	38 %
Confectionery	193	46 %

- 4.3 To some extent, the majority of these categories are unsurprising as they reflect the four main areas for enhanced sampling recommended by the Sampling Co-ordination Working Group:
- Microbiological analyses of chicken
  - Mercury and cadmium in fish
  - Added water in chicken
  - Colours in imported food, with some focus on sweets and spices
- 4.4 The focus on fruit and vegetables reflects a particular interest seen in four of the larger ports in looking at pesticide residues. The focus on soups, broths and sauces appears to reflect that many sauces and condiments were imported from Asian countries and there was a residual concern here.
- 4.5 Outside of these main categories, there were some sub-categories which attracted relatively high failure rates.

**Table 5: Highest failure rates of other food sub-categories**

Sub-Category (not includes in table above)	Number of samples taken	Failure Rate
Soft drinks	23	48 %
Nuts, nut products	51	29 %
Honey and honey products	58	26 %
Fruit juices	21	24 %
Flour and flour products	26	23 %

- 4.6 The major problems found in the key food categories sampled will be considered in more detail in the next section which covers the analyses carried out. However with regards to these particular sub-categories, problems with flour and flour products mainly relate to labelling and the

appropriate Authority is liaising with the importer to rectify these. The same is true generally for fruit juices and soft drinks, where problems relate to labelling, some of which were of a more technical nature, for instance the nutritional information being in US rather than EU format.

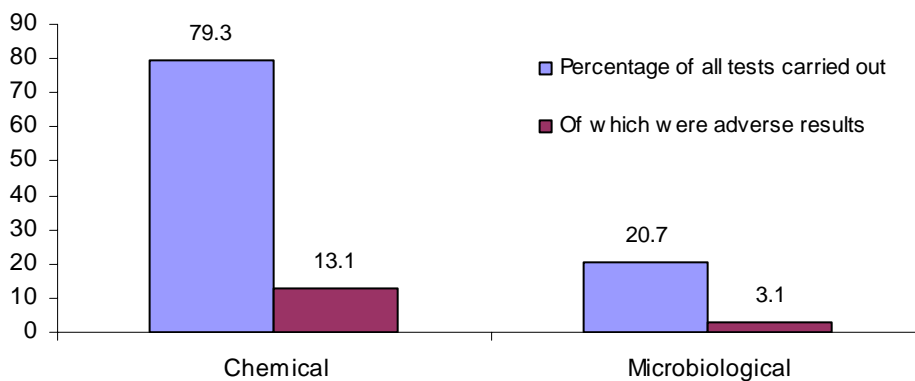
- 4.7 Labelling was also the main reason for failure on honey, although one honey product was found to contain streptomycin and a Rapid Alert was raised in that instance. Aflatoxins were found in peanuts from the Cameroon, groundnuts from Argentina and Pistachios from Pakistan; other adverse results for nuts and nut products again related to labelling issues.

## 5 The main problems found

5.1 Although the Sampling Co-ordination Working Group agreed on four priority areas for imported food sampling as part of this project, they also agreed that more general enhanced sampling and surveillance of imported food was important. Authorities were able to focus on local issues that were important to them and consequently, the food sampling covered a broad spectrum and foods and tests. To make the interpretation of this data more manageable, the tests were grouped into 29 broad headings of chemical analysis and 7 headings of microbiological examination.

5.2 Almost four times as many samples were sent for chemical analysis as opposed to microbiological examination. Those sent for analysis also recorded higher failure rates - of the 540 adverse results reported, 508 arose from chemical analysis (13 per cent of all samples sent for analysis) and 32 from microbiological examination (3 per cent of all samples sent for examination).

**Chart 2: Percentage of total samples and adverse results for chemical analysis and microbiological examination**



5.3 Microbiological testing was recorded by food type, with the majority of adverse results coming from fish, herbs and spices. Five fish samples from Bangladesh resulted in products being disposed of after recording high *Bacillus* counts. Positive results for *Streptococci* (in bottled water) and *Salmonella* (in Chorizo sausages) resulted in goods being destroyed in the former case and in the latter case with a national Food Hazard Warning being sent out.

5.4 In some cases, more than one type of analysis was carried out on a particular food. The figures included in the table below reflect this and, as such, cannot be added together to give overall sample numbers.

**Table 5: Most common broad analytical categories**

Broad analytical category	Number of analyses carried out	Failure Rate
Pesticide residues	942	3 %
Colours	747	20 %
Heavy Metals	747	5 %
Contaminants	446	9 %
General labelling and composition	279	34 %
Water in chicken	193	25 %
Irradiation treatment	139	6 %
Labelling and meat content of tinned meat	133	37 %

- 5.5 Pesticide residues were looked for, in the main, by 3 large ports and 2 LAs working together who have a number of ERTS – Enhanced Remote Transit Sheds – which received goods directly from a nearby airport. Despite the high sample numbers, the failure rate was relatively low. In the majority of cases the importer has been informed of the findings, with rapid alerts being generated where appropriate. The information will be passed through to Defra’s Pesticide Safety Directorate which also carries out a large surveillance programme on pesticide residues.
- 5.6 Colours also feature highly in terms of number of samples taken, being one of the four recommendations put forward by the Sampling Co-ordinated Working Group. In all 307 samples were taken looking at colours in sweets and spices, with 26 per cent of samples failing. However, the failures were in the main related to labelling issues, although it is not clear at this stage the number of labelling problems relating to the incorrect or non-declaration of permitted colours as opposed to other issues.
- 5.7 285 samples were taken looking for Sudan 1 of which 18 per cent failed. Again, many of these adverse results appear to stem from general labelling issues picked up during the Sudan 1 analysis, but there were 12 samples which tested positive for Sudan 1. The Agency has been informed of these results which have been followed up and three FHWs have been issued as a result.
- 5.8 Heavy metals have been looked for in a variety of foods, with one area, heavy metals in fish, being one of the four recommendations of the Sampling Co-ordination Working Group. The overall failure rate of samples looking for heavy metals was relatively low at 5 per cent, with only 12 samples out of the 747 finding excessive levels, mostly relating to problems with excessive mercury levels in fish, but there were also a handful of cases of cadmium being found in fish and herbs. Some of these samples were taken informally and Authorities are now undertaking further investigations including taking formal samples. The bulk of the failures again were associated with labelling failures identified through the analytical process.

- 5.9 The failure rate of 9 per cent for contaminants in food is below the average failure rate, but the nature of some of the contaminants found is worthy of some discussion. 10 samples were found to contain excessive levels of Aflatoxin B1 (mostly in herbs and spice from India and Pakistan, but also peanuts from the Cameroon, groundnuts from Argentina and Pistachios from Pakistan) and 3 samples analysed had unacceptable levels of Ochratoxin A (raisins and sultanas from Turkey). Follow up action by the relevant Authorities is continuing and this ranges from further sampling of the affected consignments at ports, re-export (in the case of some Turkish raisins) to one case where the Authority is liaising with the Agency with a view to a FHW being issued.
- 5.10 General labelling and problems with the labelling and meat content of tinned meat were the areas with the highest levels of adverse results, 34 per cent and 37 per cent respectively. A total of 143 samples failed across these two broad categories. Much of the follow up work being taken forward by Authorities in this area revolves around liaison with the Home Authority and the importer to resolve the issues. In some cases labelling changes have already been agreed, but more work is being undertaken to ensure these more general labelling problems are resolved.
- 5.11 In the case of labelling failures generally, where high failure rates were found, it is not clear in many cases what the problem was, e.g. fraudulent or misleading statements or more technical issues relating to the way information was presented. This reflects the initial aim to keep the amount of information requested from Authorities to a minimum, but it is something we will be following up to ensure we have sufficient information to identify all key issues.
- 5.12 The failure rate for samples taken to look for added (and undeclared) water in chicken is also high, with 25 per cent of samples failing. We will be reviewing these results closely with relevant Authorities to help co-ordinate appropriate action both nationally and at EU level. A meeting has already been planned with relevant LAs to take this forward.
- 5.13 The final key area looked at is that of irradiation of food, where 139 samples were taken and 8 adverse results were reported, mainly of herbs and spices which indicate an irradiated component within seasoning mixes. These results have been notified to the importers and the port where the samples were taken will be targeting future imports.

## 6 Conclusions

- 6.1 The project to fund additional sampling and surveillance of imported food has been generally successful when considered against the project criteria and intended impact. 4,427 samples taken and 822 premises visited in the process. Alongside the sampling data the individual Authority evaluation reports have highlighted that the samples and the surveillance activity supported by the grant has increased the knowledge of Authorities about importers and foodstuffs in their areas. There is also evidence that they are beginning to integrate specific imported food sampling and surveillance into their own routine work programmes. Alongside this, the project has demonstrated the ability to target funds for sampling in a very specific way, delivering results and action quickly and effectively.
- 6.2 The vast majority of LAs have adhered to the contract requirements and delivered a sampling programme consistent with their initial bids. Some minor problems have arisen relating to the very tight timetable set for the project and in a handful of cases the analytical results are still awaited.
- 6.3 The project has identified potential problem areas and countries where further targeted sampling and surveillance is appropriate. Conversely, the results for some areas which were initially identified as priority areas would appear to indicate a lesser risk of non-compliance.
- 6.4 The project has resulted in a number of cases of unsafe foods being taken off the market and, as such, reduced risk to consumers. Such goods have mainly been destroyed although one batch was re-exported. More widely, the work has resulted in a number of national Food Hazard Warnings for Sudan I and one for *Salmonella* in Chorizo sausages. There have also been EU Rapid Alerts raised concerning pesticide residues found in fruit, streptomycin found in honey and excessive colours found in sweets.
- 6.5 Much of the follow up work is ongoing with many Authorities taking follow-up samples, liaising with importers and Home Authorities. Some Authorities are already considering formal action and are currently undertaking PACE interviews.
- 6.6 The general findings suggest that there remains a need to provide a focus on imported food. The level of co-ordination achieved through this work suggest that the process has worked overall and suggests that a similar project running in 2004/05 will bring benefits, albeit the project could be further targeted and directed, given the general findings from this work. An earlier lead time is also likely to enhance the program allowing LAs more time to focus and target their activities.