



## **LOCAL HEALTH AUTHORITY ANALYTICAL COMMITTEE**

### **COORDINATED SAMPLING PROJECT – IMPORTED FOODS**

#### **APRIL 2012**

#### **Introduction**

This report summarises the findings from the LHAAC Co-ordinated Sampling project on Imported Foods. Due to the wide range of imported food types available, local councils were provided with direction from the LHAAC Co-ordinator as to the type of products to submit. The main product types that councils were given advice to select were: noodles; imported cheeses; canned meat & canned fish; sauces & marinades; dried products; and, jams & fruits.

#### **Consignment Details**

This was one of the most heavily supported Co-ordinated Sampling Projects that has been organised in recent times by LHAAC. At the end of the survey, 340 imported food products had been submitted by 29 participating municipalities. This is almost 5 times the number of consignments submitted for the most recent dairy project with over twice the number of local councils.

The breakdown of the number of samples submitted by each Local Government is presented in Appendix 1.

#### **Testing Methodology**

Agrifood Technology looked at two main areas when assessing each sample. Firstly the NIP was examined for compliance. This looked at the content of the NIP, the calculations used, formatting of the NIP and also legibility of the NIP (font size, language etc). Secondly, a full nutritional analysis was conducted by Agrifood Technology and the results were directly compared with the product's declared nutritional information panel (NIP).

In previous sampling projects, analysis has at times been compromised by the absence of nutritional information on the packaging with Agrifood then having little to compare its measured results against. Imported foods are required to have this nutritional information present and of the 340 food products submitted, only 9 products had nutritional information missing. This allowed conclusive results to come from this particular co-ordinated sampling project.

#### **Products Types Submitted**

The product types identified prior to the survey were listed in the introduction above. These product types made up the majority of products submitted, however there were also other imported food products submitted that were selected with discretion by some councils. The following table shows the breakdown of all samples received by product type:

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<b>Product</b>	<b>Number of Samples</b>
Meat & Seafood	82
Noodles	67
Jams, Condiments & Fruit	58
Sauces & Marinades	48
Cheeses	32
Biscuits	13
Dried Products	13
Confectionary	10
Soup	6
Rice & Bread	5
Miscellaneous	6

### **Test Results**

The following pages will investigate areas of non compliance for each of the product groups listed in the table above. As an entire project, the number of samples considered sub-standard was 175, or 51.5% of the entire 340 products submitted. This is an area for concern.

#### **Meat & Seafood**

There was a wide mix of samples as part of the 82 meat and seafood products submitted. It included samples of ham, salmon, tuna, sardines, turkey, chicken, beef and pork. Of the products submitted, 36 or 43.9% were sub standard. The majority of the samples were classified to be sub-standard due to problems with the nutritional panels. The break down of non-compliance can be categorised as follows:

- Presentation of the NIP: 21 samples had incorrect information on their NIP as follows:
  - 13 samples had incorrect units on the NIP (e.g. calories rather than kilojoules)
  - 10 samples had an incorrect ordering of results on the NIP
  - 6 samples had no saturated fat on the NIP
  - 6 samples had serving size missing from the NIP
  - 5 samples had energy values incorrectly calculated on the NIP
  - 4 samples had no sugars present on the NIP
  - 2 sample had no sodium present on the NIP
  - 1 sample had legibility issues on the NIP
  - 1 sample had the incorrect meat content calculation on the NIP
  - 1 sample had very high dietary fibre on the NIP for a fish product.

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- Incorrect results: 19 samples had information on their product that was inconsistent with laboratory analysis, as follows:
    - 12 samples had fat significantly higher than declared on the NIP
    - 5 samples had meat content significantly different than declared on the NIP
    - 2 samples had significantly lower protein than declared on the NIP
    - 1 sample had significantly higher sodium than declared on the NIP
    - 1 sample had significantly higher carbohydrates than declared on the NIP
  - Presence of Nitrates/Nitrites: 4 samples were found to contain nitrates/nitrites however this information was not declared on the NIP.
  - No nutritional panel: 1 sample was missing a NIP.

The total number of errors (45) is more than the 36 sub-standard products due to some samples being non-compliant in more than one category.

## **Noodles**

There was a wide range of noodles and pasta samples included in the 67 products submitted, including macaroni, spaghetti, vermicelli, linguine, instant noodles, pad thai noodles, rice noodles and egg noodles. Of the products submitted, 41 or 61.2% were sub standard. The majority of the samples were classified to be sub-standard due to problems with the nutritional panels. The break down of non-compliance can be categorised as follows:

- Presentation of the NIP: 31 samples had incorrect information on their NIP as follows:
  - 16 samples had incorrect units on the NIP
  - 14 samples had incorrect order on the NIP
  - 7 samples had no saturated fats present on the NIP
  - 6 samples had no sodium present on the NIP
  - 6 samples had no sugars present on the NIP
  - 4 samples had legibility issues on the NIP
  - 2 samples had serving size missing from the NIP
  - 2 samples had energy values incorrectly calculated on the NIP
  - 1 sample had no energy present on the NIP
- Incorrect results: 20 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 10 samples had significantly higher sodium than declared on the NIP
  - 8 samples had significantly higher fat than declared on the NIP
  - 3 samples had significantly lower protein than declared on the NIP
  - 3 samples had artificial colouring which was not declared.
  - 1 sample had significantly higher carbohydrates than declared on the NIP
- No nutritional panel: 3 samples were missing a NIP.

The total number of errors (86) is more than the 41 sub-standard products due to some samples being non-compliant in more than one category.

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## Jams, Condiments and Fruit

This was a broad product mix with in total 58 samples submitted. There was a range of fruit jams spreads, marmalades, chutneys, mustards, tinned fruits and dried fruit. Of the products submitted, 29 or 50.0% were sub standard. The majority of the samples were classified to be sub-standard due to problems with the nutritional panels. The break down of non-compliance can be categorised as follows:

- Presentation of the NIP: 20 samples had incorrect information on their NIP as follows:
  - 12 samples had incorrect units on the NIP
  - 10 samples had incorrect order on the NIP
  - 2 samples had no saturated fats present on the NIP
  - 3 samples had no sodium present on the NIP
  - 6 samples had no sugars present on the NIP
  - 2 samples had no protein present on the NIP
  - 2 samples had legibility issues on the NIP
  - 1 sample had serving size missing from the NIP
  - 1 sample had incorrect calculations on the NIP
- Incorrect results: 12 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 6 samples had significantly higher fat than declared on the NIP
  - 6 samples had significantly lower protein than declared on the NIP
  - 5 samples had benzoic acid present but not declared ion the NIP
  - 4 samples had significantly higher sodium than declared on the NIP
  - 3 samples had significantly higher carbohydrates than declared on the NIP
  - 2 samples had artificial colouring which was not declared.
  - 1 sample had significantly higher sugar than declared on the NIP
  - 1 sample had sulphur dioxide present but not declared ion the NIP
- No nutritional panel: 2 samples were missing a NIP.

The total number of errors (77) is more than the 29 sub-standard products due to some samples being non-compliant in more than one category.

## Sauces and Marinades

As with most of the imported food categories, the sauces and marinades category provided a broad product mix with a total of 48 samples submitted. This included oyster sauce, sweet chilli sauce, soy sauce stir fry sauce, fish sauce and a selection of curry pastes. Of the products submitted, 20 or 41.7% were sub standard. There was a roughly even split between those samples classified as sub-standard due to problems with the nutritional panels compared to those samples that were non compliant due to testing problems. The break down of non-compliance can be categorised as follows:

- Presentation of the NIP: 11 samples had incorrect information on their NIP as follows:
  - 8 samples had incorrect units on the NIP
  - 6 samples had incorrect order on the NIP
  - 3 samples had legibility issues on the NIP
  - 1 sample had incorrect calculations on the NIP
- Incorrect results: 11 samples had information on their product that was inconsistent with laboratory analysis, as follows:

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- 7 samples had significantly higher sodium than declared on the NIP
  - 5 samples had significantly higher energy than declared on the NIP
  - 4 samples had significantly lower protein than declared on the NIP
  - 3 samples had significantly higher fat than declared on the NIP
  - 3 samples had significantly higher carbohydrates than declared on the NIP

The total number of errors (40) is more than the 20 sub-standard products due to some samples being non-compliant in more than one category.

### **Cheeses**

A total of 32 imported cheese products were submitted for this survey. The range included feta, goats cheese, sheep's milk cheese, ricotta, cottage, haloumi, jarlsberg, swiss, edam, camembert, and smoked cheeses. Of the products submitted, 18 or 56.3% were deemed to be substandard as follows:

- Presentation of the NIP: 11 samples had incorrect information on their NIP as follows:
  - 9 samples had incorrect units on the NIP
  - 4 samples had incorrect order on the NIP
  - 2 samples had no sodium present
  - 2 samples had no sugars present on the NIP
  - 1 sample had no saturated fats present on the NIP
  - 1 sample had legibility issues on the NIP
  - 1 sample had incorrect calculations on the NIP
- Incorrect results: 6 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 7 samples had significantly higher sodium than declared on the NIP
  - 3 samples had significantly lower protein than declared on the NIP
  - 1 sample had significantly higher carbohydrates than declared on the NIP
  - 1 sample had significantly higher fat than declared on the NIP
- No nutritional panel: 2 samples were missing a NIP.

### **Biscuits**

A total of 13 imported biscuit products were submitted for this survey. There was a range of both sweet and savoury biscuits including choc chip, rice crackers, prawn crackers and whole wheat. Of the products submitted, 8 or 61.5% were deemed to be substandard as follows:

- Presentation of the NIP: 4 samples had incorrect information on their NIP as follows:
  - 4 samples had incorrect units on the NIP
  - 3 samples had incorrect order on the NIP
  - 1 sample had legibility issues on the NIP
- Incorrect results: 3 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 1 sample had significantly higher sodium than declared on the NIP
  - 1 sample had potassium present which was not declared on the NIP
  - 1 sample had significantly higher fat than declared on the NIP
- No nutritional panel: 2 samples were missing a NIP.

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## Dried Products

A total of 13 imported dried products were submitted for this survey. The majority were dried fruit products but there were also samples of dried seaweed, beancurd, chilli and mushrooms. Of the products submitted, 10 or 76.9% were deemed to be substandard as follows:

- Presentation of the NIP: 3 samples had incorrect information on their NIP as follows:
  - 2 samples had incorrect units on the NIP
  - 2 samples had incorrect order on the NIP
  - 1 sample had legibility issues on the NIP
  - 1 sample had an incorrect energy calculation
  - 1 sample had no saturated fat on the NIP
  - 1 sample had no sugars on the NIP
- Incorrect results: 8 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 4 samples had significantly lower protein than declared on the NIP
  - 3 samples had significantly higher fat than declared on the NIP
  - 3 samples had significantly higher sodium than declared on the NIP
  - 2 samples had significantly higher energy than declared on the NIP
  - 1 sample had significantly higher carbohydrates than declared on the NIP

## Confectionary

A total of 10 imported confectionary products were submitted for this survey. The majority were chocolate and fudge samples. Of the products submitted, 5 or 50.0% were deemed to be substandard as follows:

- Presentation of the NIP: 4 samples had incorrect information on their NIP as follows:
  - 3 sample had legibility issues on the NIP
  - 2 samples had incorrect order on the NIP
  - 1 sample had no energy on the NIP
  - 1 sample had no serving size on the NIP
- Incorrect results: 3 samples had information on their product that was inconsistent with laboratory analysis, as follows:
  - 2 samples had significantly higher sodium than declared on the NIP
  - 1 sample had significantly lower protein than declared on the NIP
  - 1 sample had significantly higher fat than declared on the NIP

## Soup

A total of 6 imported food products were submitted for this survey. Only one of the products submitted was deemed to be substandard and this was due to the sample containing significantly more carbohydrates than was declared on the NIP.

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## **Rice and Bread**

Only 5 rice and bread samples were submitted for the survey. Of these 3 samples (60%) were deemed to be substandard following the measurement in the Agrifood laboratory. The areas of non-compliance are as follows:

- 2 samples had significantly higher sodium than declared on the NIP
- 2 samples had significantly higher fat than declared on the NIP
- 1 sample had significantly lower protein than declared on the NIP

## **Miscellaneous**

There was a group of 6 samples that have been placed in a miscellaneous category as they did not easily fit into a product group in their own right. These samples were as follows: sesame oil, custard, cocoa powder, pistachios, protein balls and a water sample. A total of 3 (50%) of the samples were deemed to be sub-standard based on the following:

- 2 samples had significantly higher sodium than declared on the NIP
- 1 sample contained benzoic acid which was not declared on the NIP
- 1 sample had significantly higher energy than declared on the NIP

## **Summary & Recommendations**

This co-ordinated sampling project was extremely well supported by local councils and was one of the most useful trials conducted recently due to the presence of nutritional information on most products. It is suggested that the reason the trial was well supported was twofold. Firstly it is likely that health officers thought that this was a worthwhile project to be participating in. Secondly, councils were given significant guidance by LHAAC in terms of the sample products they should be selecting.

There was a very high level of non compliance with more than 50% of the 340 samples submitted deemed to be sub-standard. In terms of this, some of the non compliance relating to NIP information is expected due to some language differences between Australia and the point of manufacture. Nonetheless the NIP guidelines have not been met for a very large number of samples. There was also a high level of non compliance in terms of the information provided on the NIP compared to Agrifood Technology's laboratory analysis which is also of some concern.

The two graphs on the following page depict the errors pictorially for both the NIP information as well as the laboratory analysis comparison. It is recommended that the results of this analysis be considered when determining future co-ordinated sampling projects.

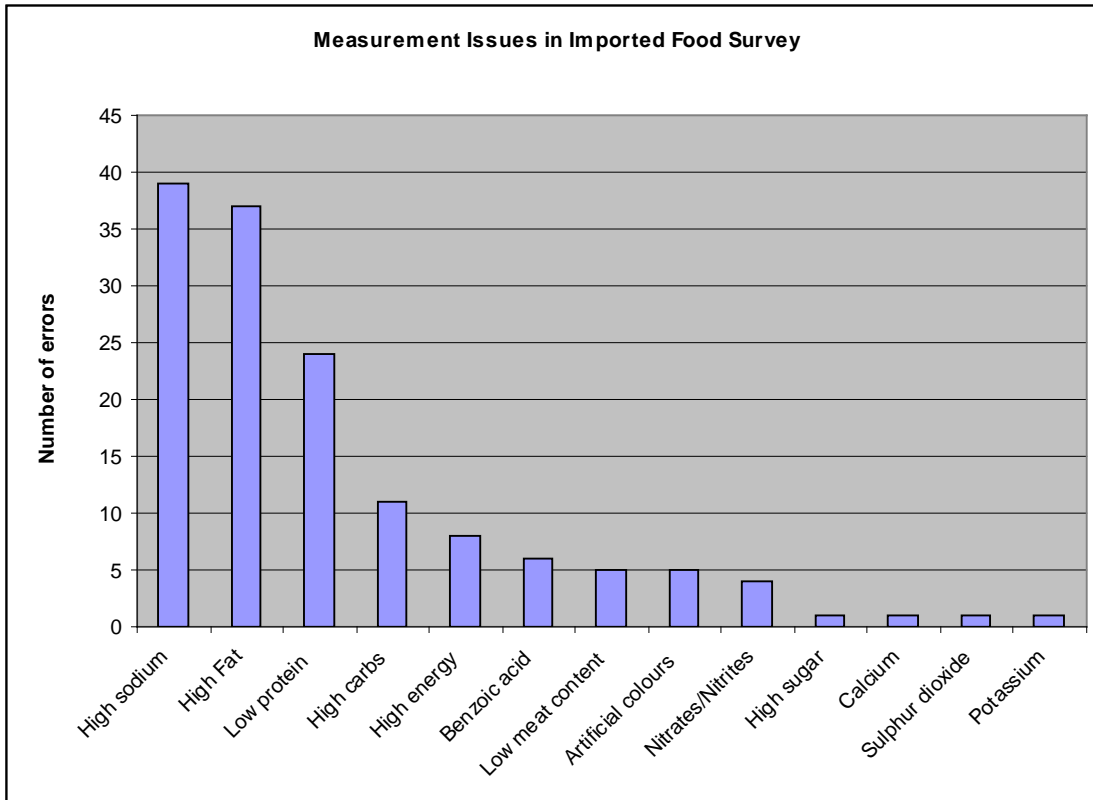
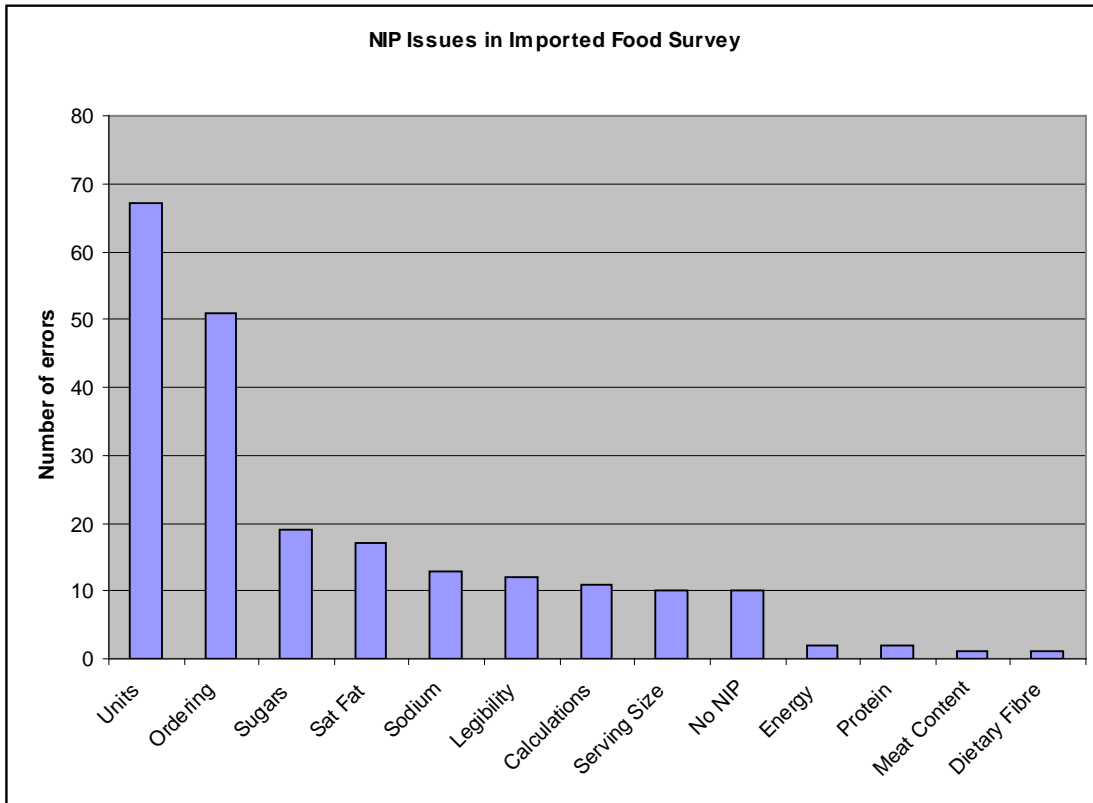
## **Further analysis**

If required, Agrifood Technology is happy to provide further data analysis to the LHAAC on the results of this survey.

### **Acknowledgement**

LHAAC would like to thank the many Local Governments who supported this Coordinated Sampling project and helped make this the most well supported coordinated sampling project undertaken to date.

LHAAC also acknowledge the exceptional work of the analyst, Agrifood Technology, in analysing the mass of samples submitted and their assistance in producing this summary report.





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**Appendix 1: Number of Samples submitted by participating Local Councils**

<b>Council</b>	<b>Number of Samples</b>
Armadale	8
Bassendean	4
Bayswater	15
Belmont	15
Broome	10
Busselton	12
Canning	21
Carnarvon	4
Cockburn	14
Dandaragan	3
Fremantle	4
Geraldton	17
Irwin	4
Joondalup	28
Kalamunda	18
Katanning	3
Kwinana	2
Mandurah	15
Melville	22
Northampton	3
Perth	16
Port Hedland	4
Rockingham	21
South Perth	13
Stirling	13
Swan	16
Victoria Park	15
Vincent	16
Wyndham / East Kimberley	4