2008 Food Safety Report No. 5

Centre for Food Safety
Food and Environmental Hygiene Department

November 2008

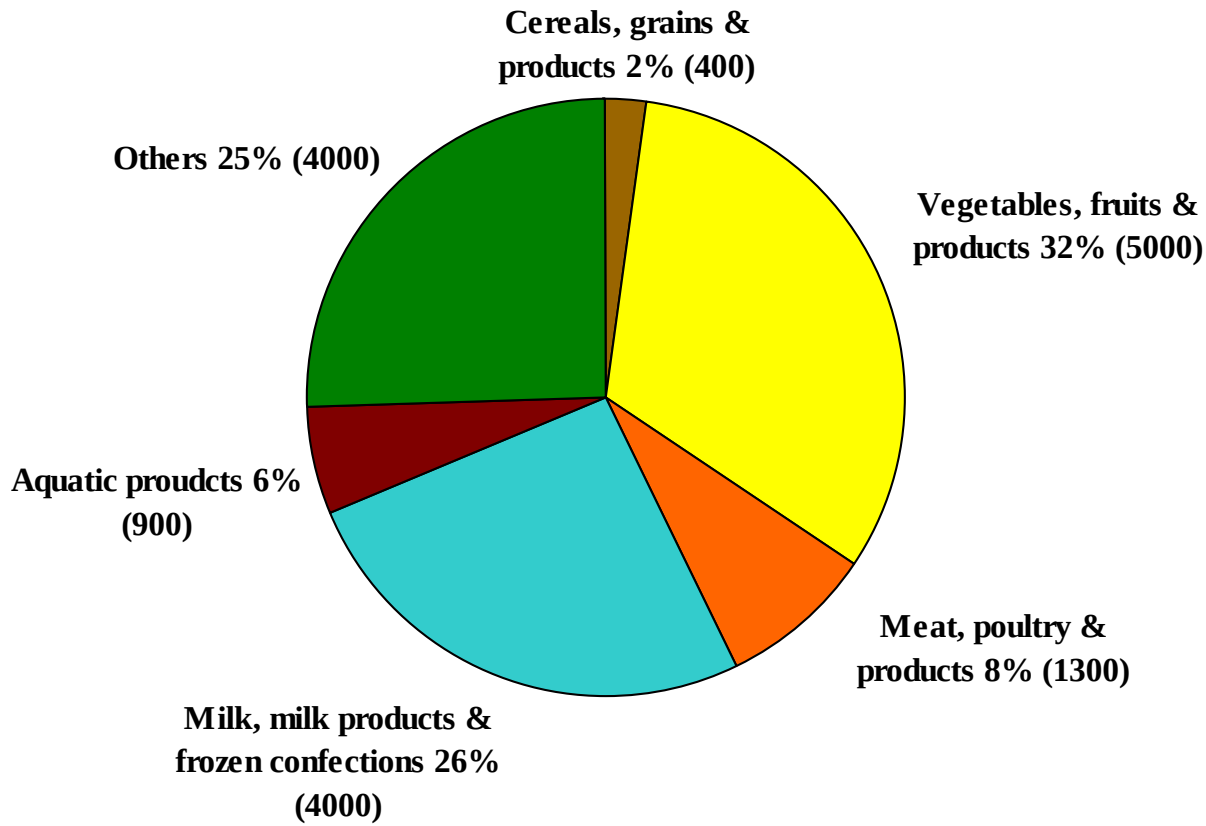
食物環境衞生署
Food and Environmental Hygiene Department
食物安全中心
Centre for Food Safety

Introduction

- The Centre for Food Safety (CFS) adopts the three-tier food surveillance approach, i.e., routine food surveillance, targeted food surveillance and seasonal food surveillance to collect samples at import, wholesale and retail levels for chemical and microbiological tests.
- Since the incident of melamine detected in milk powder in Mainland in mid-September, CFS has stepped up surveillance on the local milk, milk products and other foods. Up to the end of October, CFS has collected over 3400 samples and announced their daily results.
- Besides, CFS has completed the following food surveillance projects and released the safety information of these food to the public timely.
  - Seasonal food surveillance: “Hairy crabs”
  - Targeted food surveillance: “*Bacillus cereus* in fermented bean curds” & “Formaldehyde in noodlefish”
  - Survey on popular food items: “Western style and fast food breakfast”
- This presentation gives an account of the food surveillance sample analyses that were completed in September and November 2008.

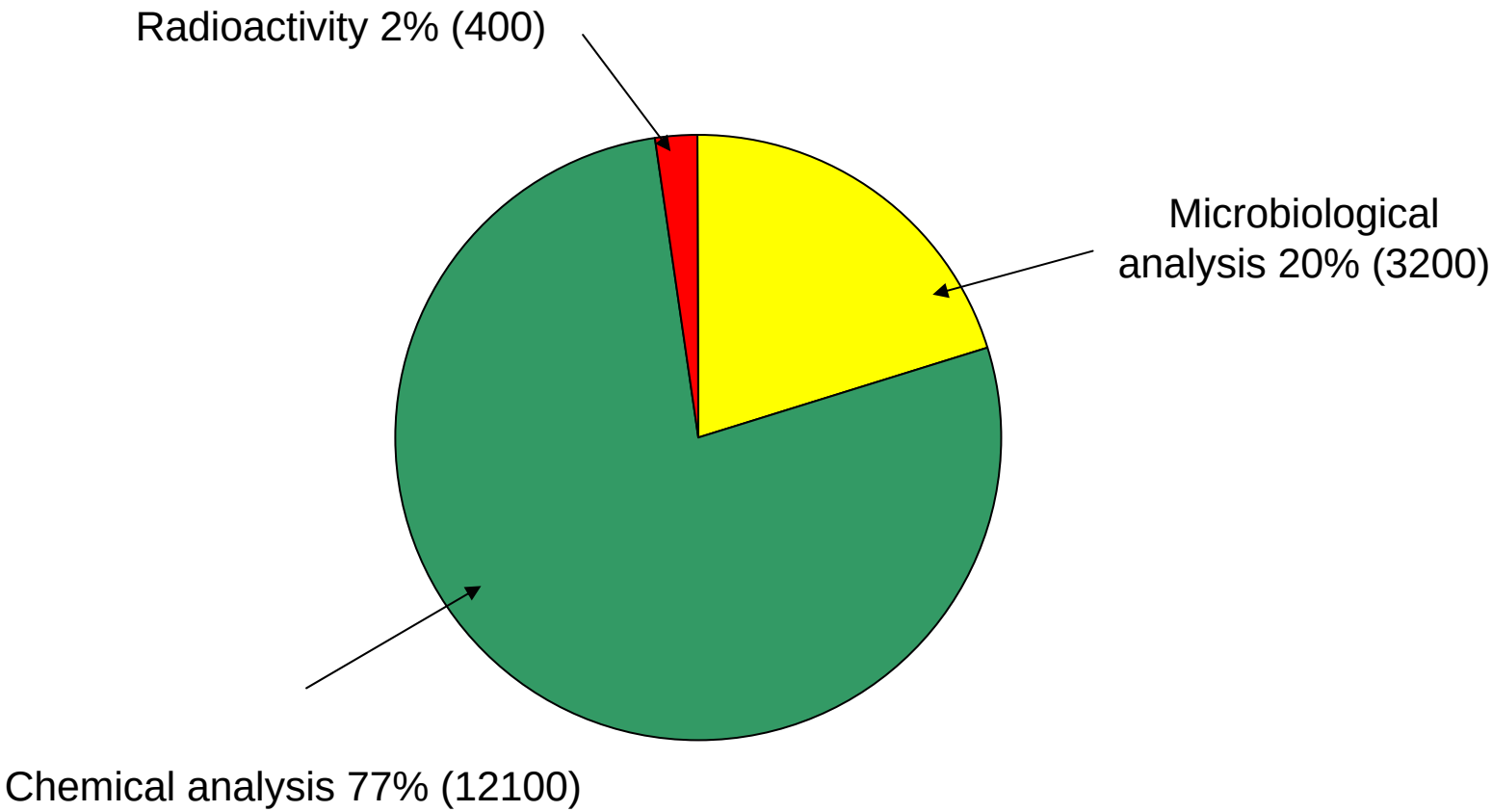
Types of food tested

- About 15600 food samples of various food groups were tested.



N.B.: Figures may not add up to total due to rounding.

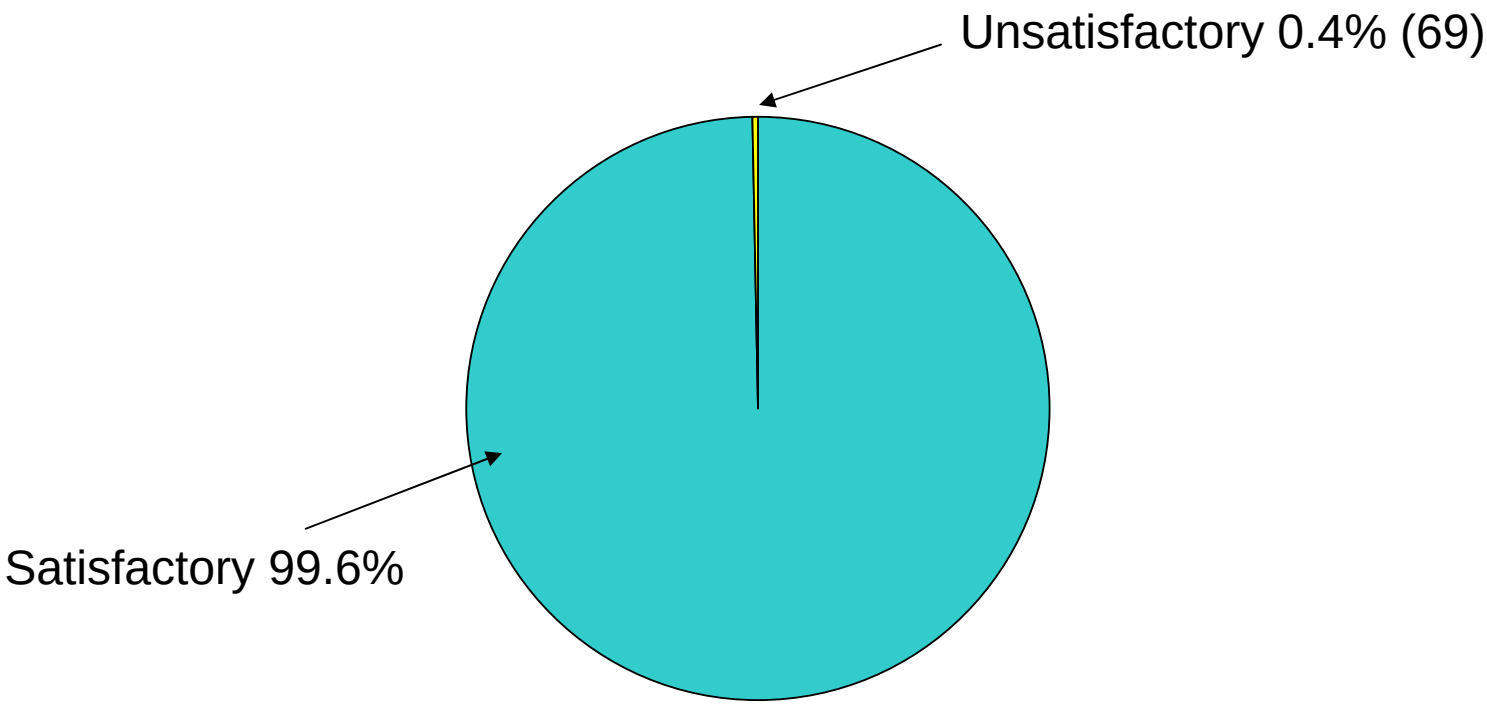
Types of testing



N.B.: Figures in brackets are rounded

Overall results

- Overall satisfactory rate was 99.6%.
- Total 69 unsatisfactory samples including the 39 samples tested unsatisfactory for melamine and 30 unsatisfactory for other tests.



Unsatisfactory samples

- 69 unsatisfactory food samples included 54 previously announced results. The remaining 15 unsatisfactory samples are as follows:

Food Group	***No. of Samples Tested***	***No. of Unsatisfactory Samples***
Vegetables, fruits & products	5000	0
Meat, poultry & products	1300	8
Aquatic products	900	6
Milk, milk products & frozen confections	4000	0
Cereal, grains and products	400	0
Others	4000	1
Total	***15600***	***15***

N.B.: Figures may not add up to total due to rounding.

1. Vegetables, fruits & products

- About 5000 samples were collected. Overall satisfactory rate was 99.9%.

- Analysis included:
  - Microbiological tests

  - Chemical tests
    - > 100 types of 4 major groups of pesticides
      - organo-chlorine (e.g., DDT, HCH)
      - organo-phosphorous (e.g., methamidophos, isocarbophos)
      - N-methlycarbamates (e.g., carbofuran)
      - pyrethroids
    - Metallic contamination (included cadmium, arsenic and lead)
    - Preservatives (included sulphur dioxide, sorbic acid and benzoic acid)
    - Colouring matters

1. Vegetables, fruits & products (Cont'd)

- Besides the 4 previously announced unsatisfactory samples of bean curds, all other results were satisfactory.

2. Meat, poultry & products

- About 1300 samples were collected. Overall satisfactory rate was 99.2%, with 8 unsatisfactory samples in this report.

- Analysis included :
  - Microbiological tests
  - Chemical tests (e.g. preservatives, veterinary drug residues and colouring matters , etc)

2. Meat, poultry & products (Cont'd)

Colouring matters

- All samples tested for colouring matters were satisfactory.

2. Meat, poultry & products (Cont'd)

Preservatives

- Except for the 3 previously announced meat samples found to contain sulphur dioxide, there was 5 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
4 fresh beef 1 fresh pork	Sulphur dioxide	79 - 2400 ppm [(1)]

[(1)] A commonly used preservative but is not permitted in fresh meat. It is of low toxicity and should not pose significant health effect on consumers.

2. Meat, poultry & products (Cont'd)

Veterinary drug residues

- 2 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
Frozen suckling pig	Chlortetracycline	0.16 ppm (1)
Frozen chicken wing tip	Doxycycline	0.63 ppm (2)

(1, 2) Levels exceed legal limits. However, based on the detected levels, it is unlikely to pose adverse effect on consumers upon normal consumption.

2. Meat, poultry & products (Cont'd)

Pathogens

- 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Spiced beef	Salmonella	Detected (1)

(1) *Salmonella* may cause gastrointestinal upset such as vomiting, abdominal pain and diarrhoea.

3. Aquatic products

- About 900 samples were collected. Overall satisfactory rate was 98.7%, with 6 unsatisfactory samples in this report.

- Analysis included:
  - Microbiological tests
  - Chemical tests (e.g. veterinary drug residues, biotoxins, colouring matters, metallic contamination and preservatives)

3. Aquatic products (Cont'd)

Biotoxins

- Except for the previously announced unsatisfactory sample of scallop, all others tested for biotoxins were satisfactory.

Colouring matters

- All samples tested for colouring matters were satisfactory.

3. Aquatic products (Cont'd)

Preservatives

- Except for the 5 previously announced samples of noodlefish found to contain formaldehyde, all other samples tested for preservatives were satisfactory.

Metallic contamination

- All samples for metallic contamination analysis were satisfactory.

3. Aquatic products (Cont'd)

Veterinary drug residues

- There were 5 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
2 deep-fried minced fish 1 minced fish in fried stuff eggplant 1 minced fish in stuff green pepper	Malachite green	0.0045 – 0.033 ppm (1)
1 grouper fillet	AOZ	0.0032 ppm (2)

(1) Prohibited substance but based on the detected levels, it is unlikely to pose adverse effect on consumers upon normal consumption.

(2) The detected level is low. It is unlikely to pose adverse effect on consumers upon normal consumption

3. Aquatic products (Cont'd)

Pathogens

- There was 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Raw oyster	Norovirus nucleic acid	Detected (1)

(1) Norovirus may cause vomiting, diarrhoea, abdominal pain and fever.

4. Milk, milk products & frozen confections

- About 4000 samples were tested including ice-cream, cheese, milk and milk products, etc. Overall satisfactory rate was 99.8%.

- Analysis included:
  - Microbiological tests (total bacterial count, pathogens, e.g., *Salmonella* and *Staphylococcus aureus*)
  - Chemical tests (melamine, colouring matters, sweeteners)

- Except for the samples unsatisfactory for melamine, all other samples were satisfactory.

5. Cereal, grains and products

- About 400 samples including bread, noodles and breakfast cereal, etc.
- Analysis included microbiological and chemical tests such as:
  - metallic contamination
  - colouring matters
  - pesticide residues
  - preservatives
- All samples were satisfactory.

6. Other food commodities

- About 4000 samples were collected. Overall satisfactory rate was 99.2%, with 1 unsatisfactory sample in this report.
- Types of food included:

Mixed dishes ❑ Pathogens, colouring matters & preservatives	Condiments and sauces ❑ Colouring matters, preservatives & sweeteners
Dim Sum ❑ Pathogens, preservatives & colouring matters	Snacks ❑ melamine, sweeteners & colouring matters
Beverages ❑ Pathogens, colouring matters & sweeteners	Eggs and egg products ❑ melamine, pathogens & colouring matters
Sushi and sashimi ❑ Microbiological examination	Others
Sugar and sweets ❑ Pathogens, sweeteners & preservatives	

6. Other food commodities (Cont'd)

Microbiological analysis

- Except for the 2 previously announced unsatisfactory samples of Western and fast food style breakfast items, all other samples for microbiological analysis were satisfactory.

6. Other food commodities (Cont'd)

Chemical analysis

- Besides the samples unsatisfactory for melamine, there was 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Non-bottled tea of apricot kernel and chrysanthemum flavour	Orange II	Detected (1)

(1) Not permitted colouing matter in food. It is of low toxicity and should not pose adverse effect on consumers.

Follow-up actions

- Trace source of food items in question.
- Request vendors to stop sale and dispose of incriminated food items.
- Issue warning letters to concerned vendors.
- Take follow-up samples.
- Take prosecution actions if there is sufficient evidence.

Summary

- The overall satisfactory rate was comparable with the previous reports. The unsatisfactory samples were mainly related to the detection of melamine exceeding legal limit. The others were related to the use of excessive/ non-permitted food additives such as veterinary drug residues, preservatives and colouring matters.

- According to legislation, no one shall sell, for human consumption, any food which contains malachite green. The trade should adopt "good agricultural practices" (GAP) and do not use malachite green on aquatic products from culture to retail levels. Source aquatic products from reliable suppliers. In case of doubt, ask for and check documents and certificates accompanying the consignment to ensure the supply is malachite green free.

- The CFS underwent a targeted approach of surveillance to assess the use of sulphur dioxide in meat. Results show that sulphur dioxide was illegally added in fresh meat. Under the law, addition of sulphur dioxide to fresh, chilled or frozen meat is not permitted. Contravention of the law could lead to a maximum fine of $50,000 and six months' imprisonment.