
2008 Food Safety Report No. 4

Centre for Food Safety

Food and Environmental Hygiene Department

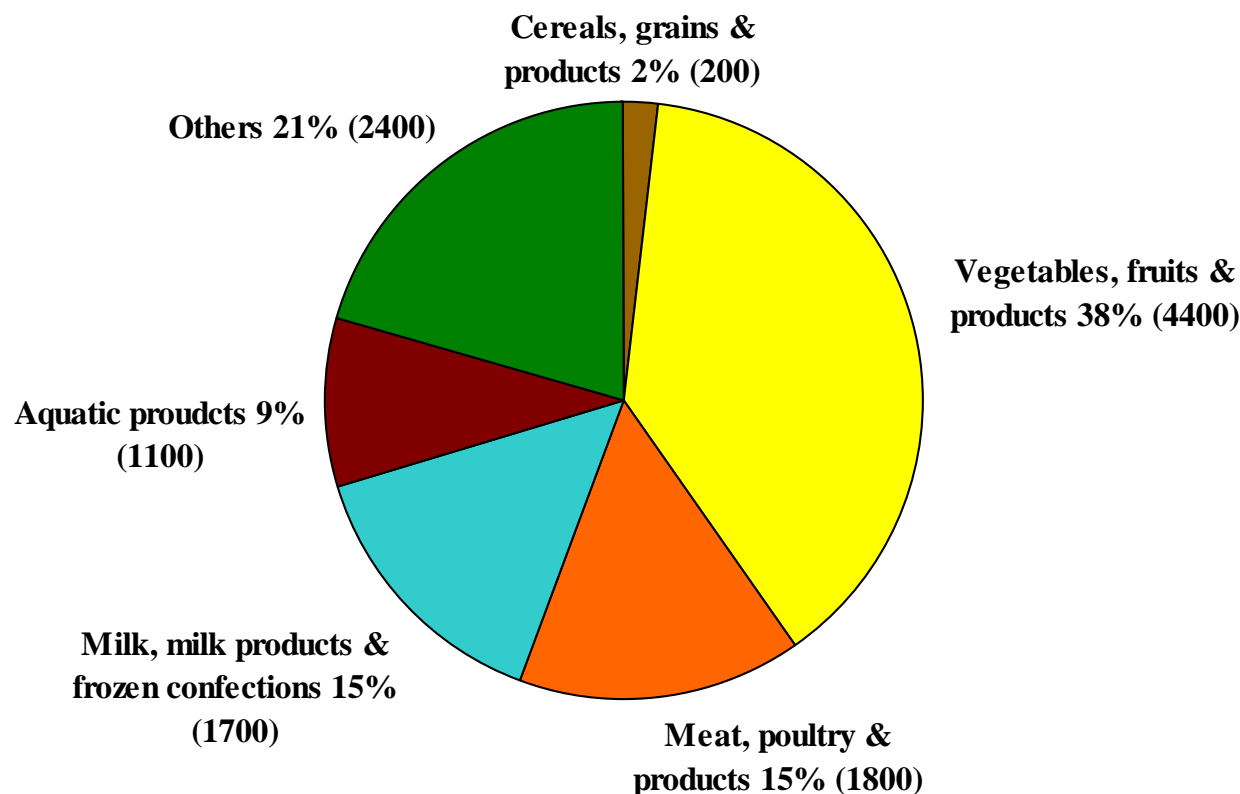
October 2008

Introduction

- The Centre for Food Safety (CFS) maintains the three-tier food surveillance approach i.e. routine food surveillance, targeted food surveillance and seasonal food surveillance in 2008, and collects samples at import, wholesale and retail levels for chemical and microbiological testing.
- Besides the routine food surveillance, CFS has completed the following seasonal and targeted food surveillance projects and released the information about the safety of these food to the public timely.
 - Seasonal food surveillance: “Mooncakes”
 - Targeted food surveillance: “Microbiological quality of ice-cream” & “Sulphur dioxide in meat”
- This presentation gives an account of the food surveillance sample analyses that were completed in July and August 2008.

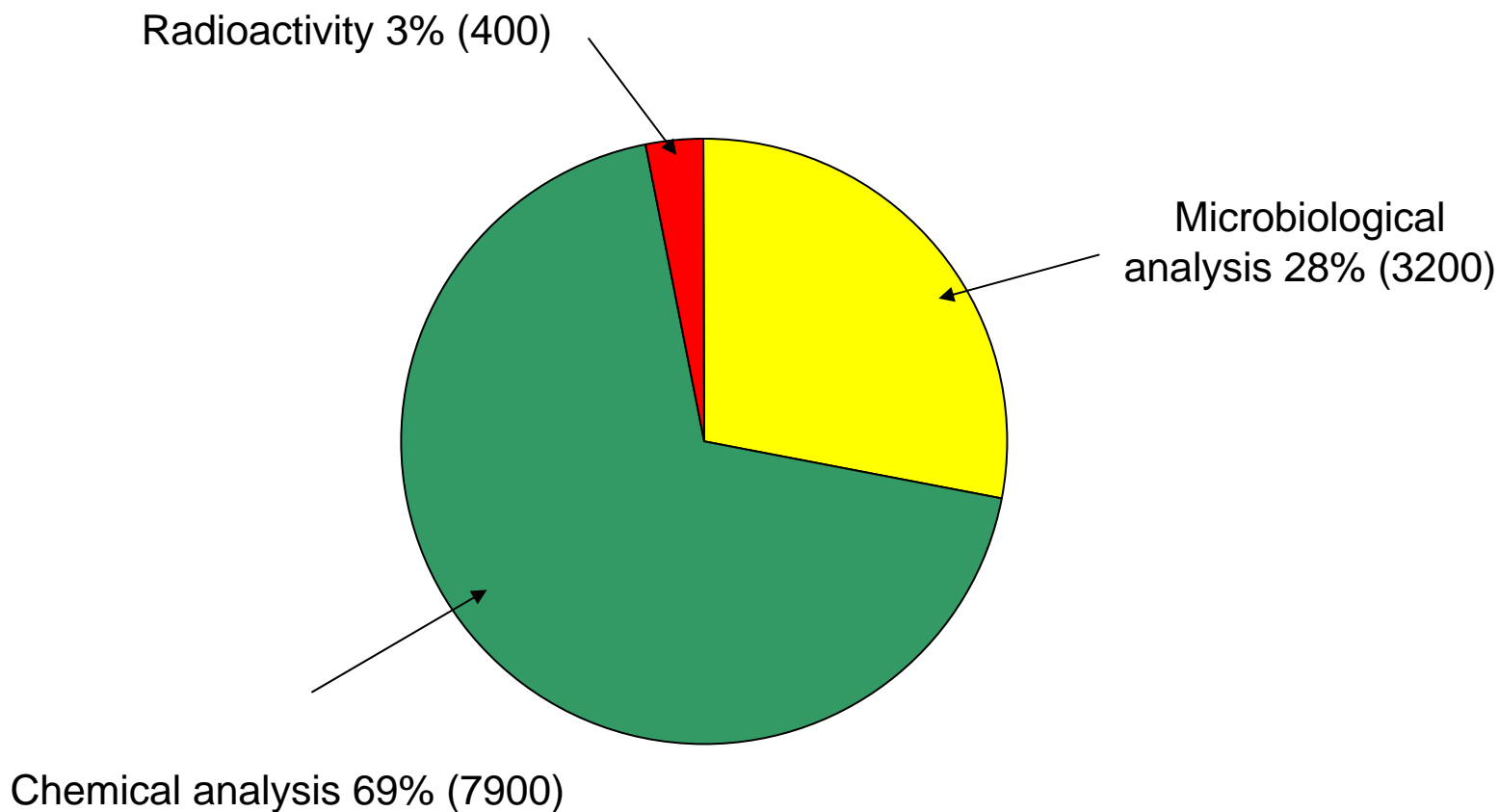
Types of food tested

- About 11500 food samples of various food groups were tested.



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

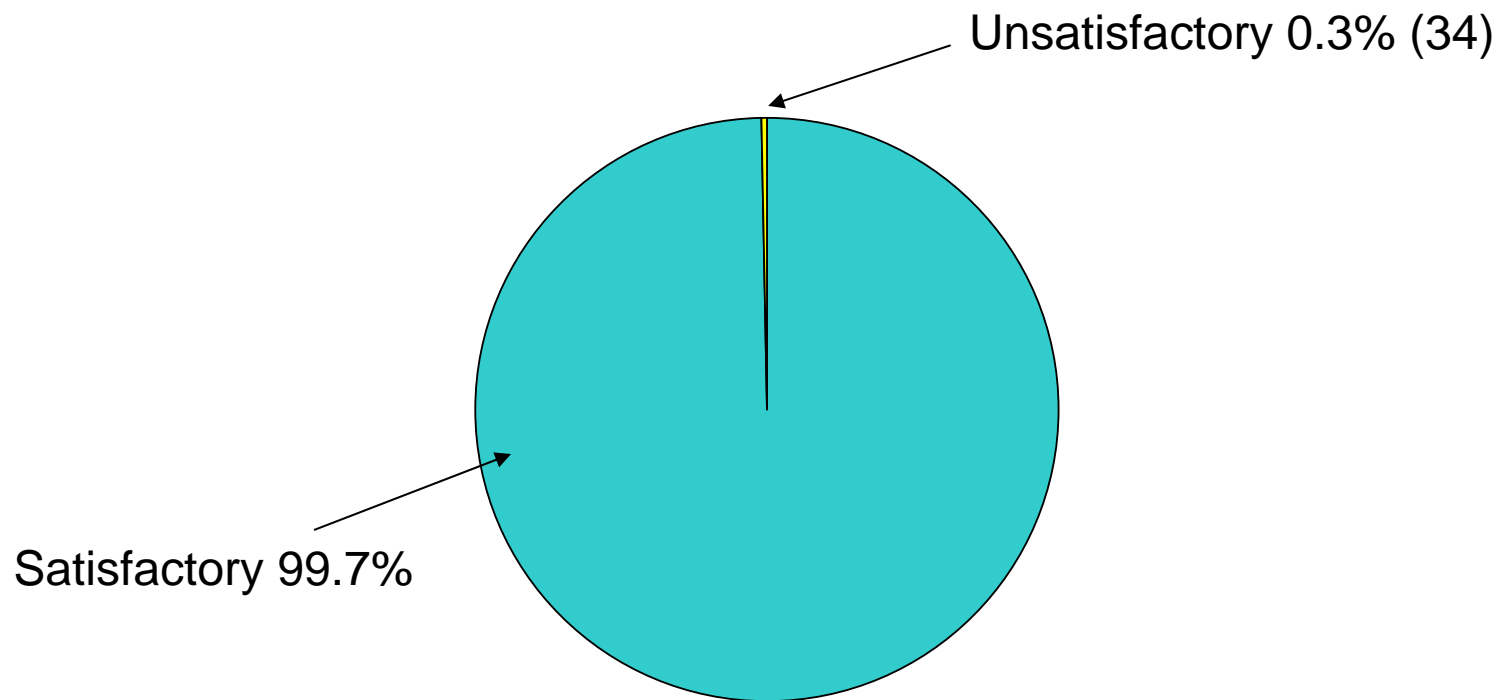
Types of testing



N.B.: Figures in brackets are rounded

Overall results

- Overall satisfactory rate was 99.7%.
- Total 34 unsatisfactory samples.



Unsatisfactory samples

- 34 unsatisfactory food samples included 20 previously announced results. The remaining 14 unsatisfactory samples are as follows:

Food Group	<i>No. of Samples Tested</i>	<i>No. of Unsatisfactory Samples</i>
Vegetables, fruits & products	4400	4
Meat, poultry & products	1800	2
Aquatic products	1100	6
Milk, milk products & frozen confections	1700	0
Cereal, grains and products	200	0
Others	2400	2
<i>Total</i>	<i>11500</i>	<i>14</i>

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

1. Vegetables, fruits & products

- About 4400 samples were collected. Overall satisfactory rate was 99.9%, with 4 unsatisfactory samples in this report.
- 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)

Microbiological tests

- All samples for microbiological tests were satisfactory.

Colouring matters

- All samples tested for colouring matters were satisfactory.

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

Preservatives

- 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Preserved rakkyo	Sulphur dioxide	580 ppm ⁽¹⁾

⁽¹⁾ The level exceeded legal limit but upon normal consumption, it is unlikely to pose adverse effect on consumers.

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

Metallic contamination

- 2 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
Eggplant	Cadmium	0.17 ppm ⁽¹⁾
Romaine hearts	Cadmium	0.14 ppm ⁽¹⁾

⁽¹⁾ The levels exceeded legal limit but upon normal consumption, it is unlikely to pose adverse effect on consumers. Thorough washing and soaking of vegetables will remove some cadmium attached on their surfaces.

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

Pesticide residues

- 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Water spinach	Methamidophos	3.4 ppm ⁽¹⁾

⁽¹⁾ The level is low and should not pose significant health effect on consumers. Thorough washing and cooking will remove most methamidophos.

2. Meat, poultry & products

- About 1800 samples were collected. Overall satisfactory rate was 98.9%, with 2 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)

Pathogens

- All samples tested for pathogens were satisfactory.

Colouring matters

- Except for one previously announced fried pig intestine sample found to contain Orange II, all remaining samples tested for colouring matters were satisfactory.

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

Preservatives

- Except for the 16 previously announced meat samples found to contain sulphur dioxide, there was 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Beef ball	Benzoic acid	340 ppm ⁽¹⁾

⁽¹⁾ A commonly used preservative but is not permitted in this kind of food. It is of low toxicity and should not pose significant health effect on consumers.

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

Veterinary drug residues

- There was 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Chilled pork	Clenbuterol	0.0016 ppm ⁽¹⁾
	Salbutamol	0.002 ppm ⁽²⁾

^(1, 2) Prohibited substance but based on the detected levels, it is unlikely to pose adverse effect on consumers upon normal consumption.

3. Aquatic products

- About 1100 samples were collected. Overall satisfactory rate was 99.3%, 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

- All samples tested for biotoxins were satisfactory.

Pathogens

- All samples tested for pathogens were satisfactory.

Preservatives

- All samples tested for preservatives were satisfactory.

3. Aquatic products (Cont'd)

Metallic contamination

- There was 1 unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Oyster	Cadmium	3.4 ppm ⁽¹⁾

⁽¹⁾ The level exceeded legal limit but upon normal consumption, it is unlikely to pose adverse effect on consumers.

3. Aquatic products (Cont'd)

Veterinary drug residues

- There were 4 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
4 chilled prawn meat	AOZ	0.023 – 0.028 ppm ⁽¹⁾

3 of them were follow up samples collected from the warehouses at supplier level. After receiving the reports of result, all remaining stocks in the warehouses were disposed of.

⁽¹⁾ The detected level was low and should not pose adverse effect on consumer.

3. Aquatic products (Cont'd)

Colouring matters

- Except for the 2 previously announced curry squid samples found to contain Orange II, there was another unsatisfactory sample:

Sample	Unsatisfactory testing item	Result
Big eye fish	Ponceau 4R	Detected ⁽¹⁾

⁽¹⁾ Permitted colouring matter in certain food but is not allowed in fresh fish. It is of low toxicity and should not pose adverse effect on consumer.

4. Milk, milk products & frozen confections

- About 1700 samples were tested including ice-cream, cheese, milk and milk products, etc.
- Analysis included:
 - Microbiological tests (total bacterial count, pathogens, e.g., *Salmonella* and *Staphylococcus aureus*)
 - Chemical tests (preservatives, colouring matters, sweeteners)
- Overall satisfactory rate was 99.9%. Except for the one previously announced unsatisfactory soft ice-cream sample, all other samples were satisfactory.

5. Cereal, grains and products

- About 200 samples including rice, 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 2400 samples were collected. Overall satisfactory rate was 99.9%, with 2 unsatisfactory samples 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 ❑ sweeteners & colouring matters
Beverages ❑ Pathogens, colouring matters & sweeteners	Eggs and egg products ❑ Pathogens & colouring matters
Sushi and sashimi ❑ Microbiological examination	Others
Sugar and sweets ❑ Pathogens, sweeteners & preservatives	

6. Other food commodities (Cont'd)

Chemical analysis

- All samples for chemical analysis were satisfactory.

6. Other food commodities (Cont'd)

Microbiological analysis

- 2 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
Vegetarian poon choi	<i>Bacillus cereus</i>	10^5 / g ⁽¹⁾
Instant noodle with chicken	<i>Staphylococcus aureus</i>	4.9×10^4 / g ⁽²⁾

(1) & (2) *Bacillus cereus* and *Staphylococcus aureus* may cause gastrointestinal upset such as vomiting, abdominal pain and diarrhoea.

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 unsatisfactory samples were mainly related to the use of excessive/non-permitted food additives such as veterinary drug residues, preservatives, colouring matters or pesticide residues. The trade should use only permitted food additives, follow good manufacturing practice and comply with legal requirements. Public are advised to maintain a balanced diet to minimize risk.
- According to legislation, it is an offence to sell meat containing clenbuterol or salbutamol. The trade should source pork from reliable suppliers and maintain a good recording system to allow source tracing if needed.
- There was a poon choi sample found to contain pathogen. It indicated that the food processing was unhygienic. The trade should not prepare excessive quantity of poon choi and its ingredients. All food should be cooked thoroughly and served as soon as it is done. They should be kept at safe temperatures (4°C or below; above 60 °C). When reheating, poon choi should be thoroughly heated until the centre temperature reaches at least 75 °C.