# Food Safety Report for July 2009


Centre for Food Safety
Food and Environmental Hygiene Department

**August 2009**

食物環境衞生署
Food and Environmental Hygiene Department

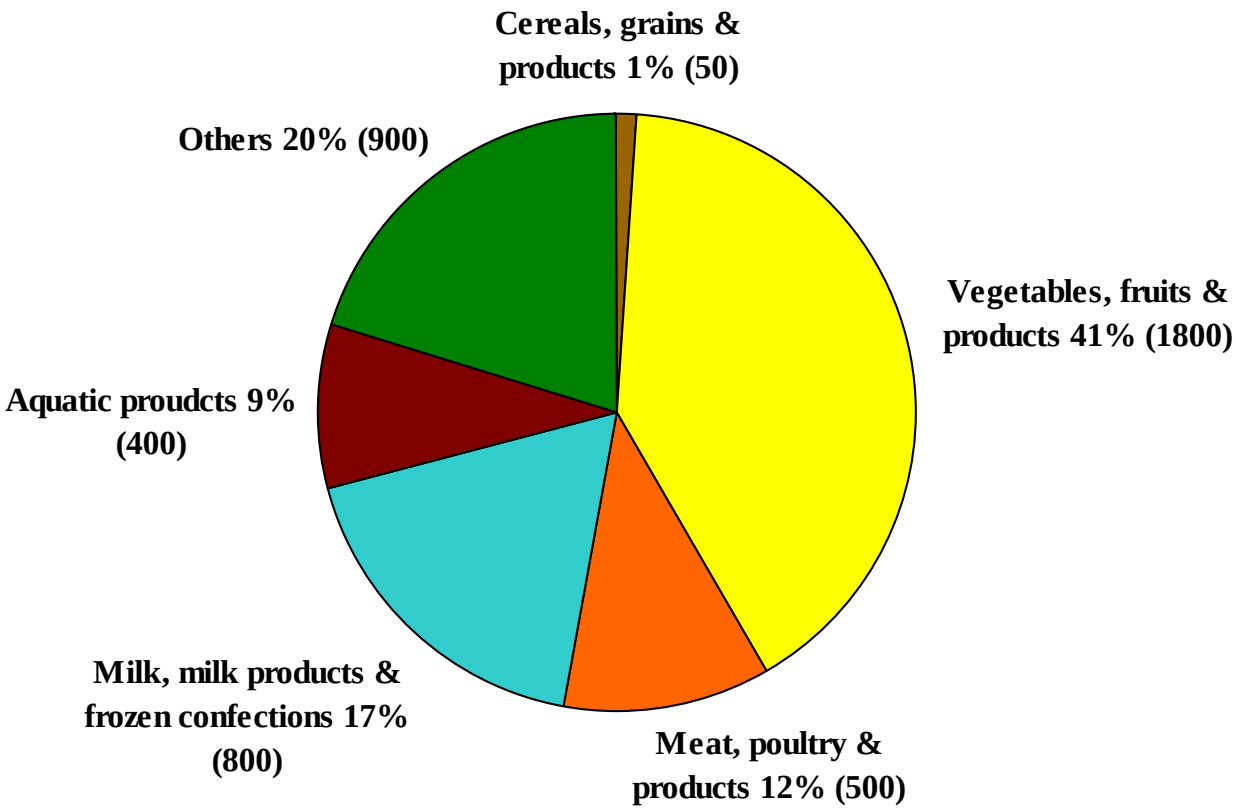
食物安全中心
Centre for Food Safety

# 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 microbiological and chemical tests.
- The CFS releases the “Food Safety Report” every month so as to allow the public to obtain the latest food safety information more timely.
- This presentation gives an account of the food surveillance sample analyses that were completed in July 2009.

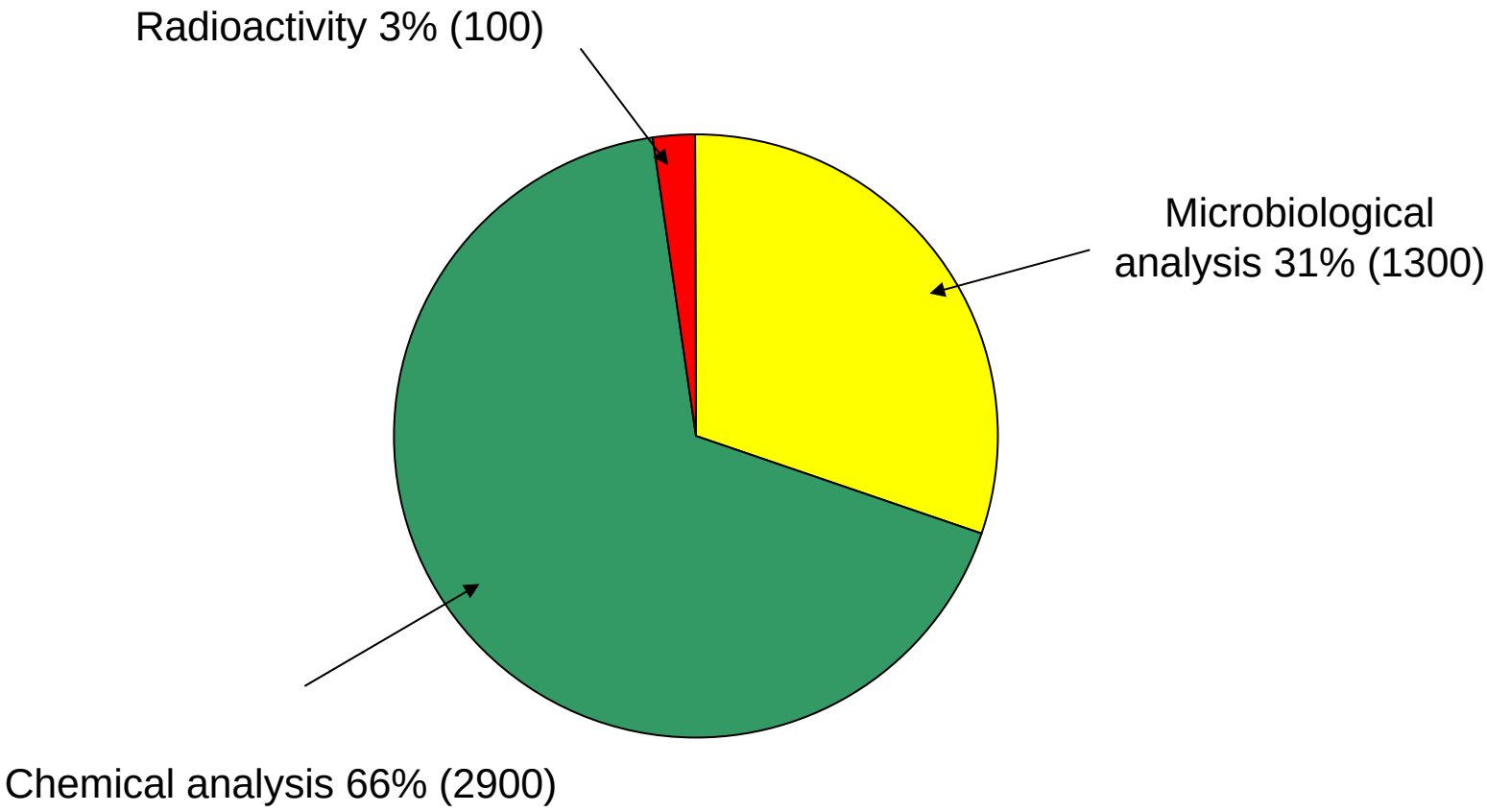
# Types of food tested

- About 4400 food samples of various food groups were tested.




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

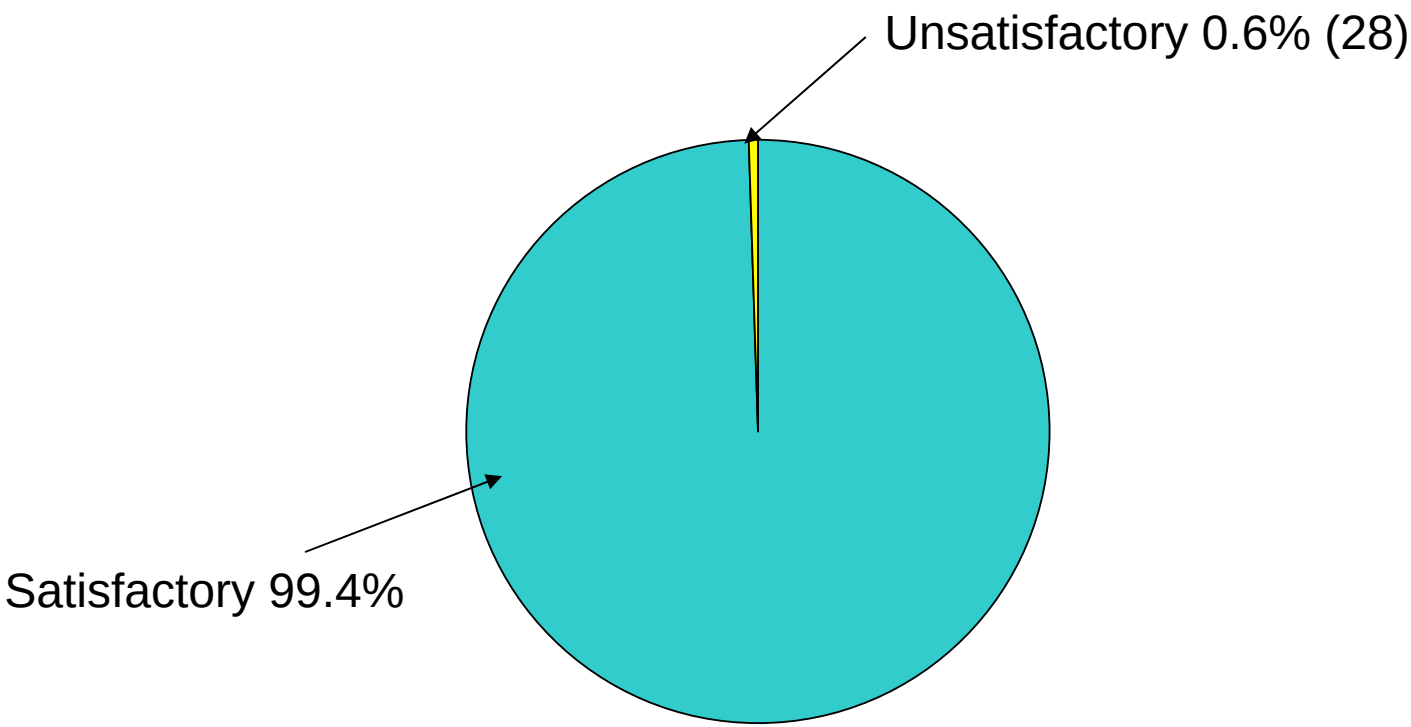
# Types of testing




N.B.: Figures in brackets are rounded

# Overall results

- Total 28 unsatisfactory samples.  The overall satisfactory rate was 99.4%.



# Unsatisfactory samples

- 28 unsatisfactory food samples are as follows:

| Food Group | *No. of Samples Tested* | *No. of Unsatisfactory Samples* |
|---|---|---|
| **Vegetables, fruits & products** | 1800 | 2 |
| **Meat, poultry & products** | 500 | 4 |
| **Aquatic products** | 400 | 5 |
| **Milk, milk products & frozen confections** | 800 | 10 |
| **Cereal, grains and products** | 50 | 0 |
| **Others** | 900 | 7 |
| ***Total*** | ***4400*** | ***28*** |

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

# 1. Vegetables, fruits & products

- About 1800 samples were collected. They included fresh vegetables, fruits and legumes, preserved vegetables and pickled fruits, dried vegetables and ready-to-eat vegetables, etc.



- Analysis included:
  - Microbiological tests
  - Chemical tests such as:
    - Pesticides (e.g., methamidophos, isocarbophos, DDT, HCH)
    - Preservatives (included sulphur dioxide, sorbic acid and benzoic acid)
    - Metallic contamination
    - Colouring matters
- Overall satisfactory rate was 99.9 %, with 2 unsatisfactory samples in this report.

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

## Metallic contamination

- 2 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| Chinese flowering cabbage | Cadmium | 0.22ppm (1) |
| Fresh mushroom | Cadmium | 0.14ppm (2) |

(1) The level exceeded legal limit but upon normal consumption, it is unlikely to pose adverse effect on consumers. Long term excessive consumption of Chinese flowering cabbage with the same level of cadmium may affect the kidney. Thorough washing and soaking of vegetables will remove some cadmium attached on their surfaces.

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

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

## Other tests

- The remaining samples for other tests (e.g., pathogens, pesticides, preservatives and colouring matters) were satisfactory.

# 2. Meat, poultry & products

- About 500 samples were collected. They included fresh, chilled and frozen pork, beef and poultry, ready-to-eat dishes of meat and poultry served at food premises, the meat and poultry made products such as sausage and ham, etc.

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

- Overall satisfactory rate was 99.3%, with 4 unsatisfactory samples in this report.







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

## Preservatives

- 3 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| 2 fresh beef | Sulphur dioxide | 87 - 120 ppm (1) |
| 1 processed pork meat | Benzoic acid | 3700 ppm (2) |

(1) Sulphur dioxide is not permitted in fresh (including chilled and frozen) meat. On the other hand, it is permitted in foods such as pickled fruits and juices. It is of low toxicity and should not pose significant health effect on consumers. For individuals who are allergic to this preservative, there may be symptoms of breathing difficulty, headache and nausea. Since it is water soluble, most of it can be removed through washing and cooking.

(2) A commonly used preservative but it is not permitted to be used in that type 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 knuckle | Clenbuterol | 0.0038 ppm (1) |

(1) It is not permitted to be used but based on the detected level, it is unlikely to pose adverse effect on consumers upon normal consumption.

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

## Other tests

- Samples for other tests (e.g. pathogens and colouring matters) were satisfactory.

# 3. Aquatic products

- About 400 samples were collected.  They generally cover fish, shellfish, shrimp/prawn, crab, squid and their products.

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

- Overall satisfactory rate was 98.7 %, with 5 unsatisfactory samples in this report.




# 3. Aquatic products (Cont'd)

## Metallic contamination

- 4 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| 1 cooked brown crab | Cadmium | 12ppm(1) |
| 1 swordfish sashimi | Mercury | 1.3ppm(2) |
| 1 tuna sashimi | Mercury | 0.72ppm(2) |
| 1 fish fillet | Mercury | 0.68ppm(3) |

(1) The detected level exceeded legal limit. Long term consumption of crab with the same level of cadmium may affect the kidney.

(2) The detected level exceeded legal limit. It is unlikely to pose adverse effect on consumers upon normal consumption. Long term excessive consumption of swordfish sashimi with the same level of mercury could exceed safety level and may affect the nervous system.

(3) The detected level exceeded legal limit. Long term consumption of fish fillet with the same level of mercury could exceed safety level and may affect the nervous system.

Pregnant women, women planning pregnancy and young children are the susceptible groups being affected by mercury. When choosing food, they should avoid eating large predatory fish.

# 3. Aquatic products (Cont'd)

## Pathogens

- There was 1 unsatisfactory sample:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| Smoked salmon | Listeria monocytogenes | Detected (1) |

(1) Listeria monocytogenes can cause symptoms such as diarrhoea and fever. For infected pregnant women, it may lead to early delivery. The sample was collected at import level. Upon receiving the results, the affected products have been destroyed. No stock has been released into the market.

# 3. Aquatic products (Cont'd)

## Other tests

- Samples for other tests (e.g. preservatives, veterinary drug residues and biotoxins) were satisfactory.

# 4. Milk, milk products & frozen confections

- About 800 samples were tested. They included ice-cream, cheese, milk and milk products, etc.

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

- Overall satisfactory rate was 98.7%, with 10 unsatisfactory samples in this report.



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# 4. Milk, milk products & frozen confections (Cont'd)

## Microbiological examination

- 10 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| *10 ice-cream bars from 2 batches of product | Coliform organisms | 170-1800/g (1) |
| | Total bacterial count | 69000-210000/g(2) |

(1) Coliform organisms and total bacterial counts are hygienic indicators. The detected levels exceeded the legal limit.

* The concerned samples were collected at import level. Upon receiving the results, all affected batches of products have been destroyed. No stock has been released into the market.

# 4. Milk, milk products & frozen confections (Cont'd)

**Other tests**

- Samples for other tests (e.g., pathogens, colouring matters, melamine and preservatives) were satisfactory.

# 5. Cereal, grains and products

- About 50 samples which generally cover rice/noodles, flour, bread and breakfast cereal, etc.
- Analysis included microbiological and chemical tests such as:
  - metallic contamination
  - preservatives
  - colouring matters
- All samples were satisfactory.




# 6. Other food commodities

- About 900 samples were collected. Overall satisfactory rate was 99.2%, with 7 unsatisfactory samples in this report.
- Types of food included:

| | |
|---|---|
| Mixed dishes<br>❑ Pathogens, colouring matters & preservatives | Condiments and sauces<br>❑ Colouring matters & preservatives |
| Dim Sum<br>❑ Pathogens, preservatives & colouring matters | Snacks<br>❑ Colouring matters |
| Beverages<br>❑ Preservatives & colouring matters | Eggs and egg products<br>❑ Colouring matters |
| Sushi and sashimi<br>❑ Microbiological examination | Others |
| Sugar and sweets<br>❑ Colouring matters & sweeteners | |

# 6. Other food commodities (Cont'd)

## Chemical analysis

- 4 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| Lotus seed paste bun | Red 2G (Colouring matter) | Detected (1) |
| Curry powder | Sudan I and IV (Colouring matter)<br>Dimethyl Yellow (Colouring matter) | Detected (1)<br>Detected (1) |
| Cheese dressing | Benzoic acid (preservative)<br>Sorbic acid (preservative) | 700 ppm (2)<br>2100 ppm (3) |
| Thousand island dressing | Benzoic acid (preservative)<br>Sorbic acid (preservative) | 830ppm (2)<br>1900ppm(3) |

(1) Not permitted to be used in food.

(2,3) Commonly used preservatives but the sum of the proportion of individual levels of these 2 preservatives detected has exceeded the legal limit. Benzoic acid and sorbic acid are of low toxicity that they should not pose significant health effect on consumers.

# 6. Other food commodities (Cont'd)

- **Microbiological analysis**
- 3 unsatisfactory samples:

| Sample | Unsatisfactory testing item | Result |
|---|---|---|
| Preserved duck egg with bean curd | Salmonella | Detected (1) |
| Crab roe salad | Salmonella | Detected (1) |
| Noodle with beef offal | Bacillus cereus (pathogen) | 3 x $10^5$/g (2) |

(1,2) Salmonella and Bacillus cereus 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 for analysis
- Take prosecution actions if there is sufficient evidence

# Advice to food trade

- It is now summer and the risk of food poisoning will increase. The trade and consumers should always follow the “5 Keys to Food Safety” to prevent foodborne disease:
  - Choose - Choose safe raw materials
  - Clean - Keep hands and utensils clean
  - Separate - Separate raw and cooked food
  - Cook - Cook thoroughly
  - Safe Temperature - Keep food at safe temperature
- The trade should source pork from reliable suppliers. The trade should also have a good record system which can facilitate source tracing when necessary.
- The importer should source frozen confections from reliable food manufacturer. They should also ensure that the frozen confections have been properly pasteurized and the hygienic practice along the production line have been maintained.
- The trade should comply with legal requirements and follow “good manufacturing practice” (GMP). They should use permitted food additives only in an appropriate manner.

# Advice to consumers

- The consumers should patronize reliable premises for buying food. They should maintain balanced diet to minimize food risk.

- Fish contain many essential nutrients, such as omega-3 fatty acids and high quality proteins. Moderate consumption of a variety of fish is recommended.

- Pregnant women, women planning pregnancy and young children are the susceptible groups being affected by mercury. When choosing food, they should avoid eating large predatory fish.