Targeted Food Surveillance on Microbiological Quality of Ice-cream

Centre for Food Safety
Food and Environmental Hygiene Department

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Introduction

- **Background**
  - Ice-cream is a popular food in summer. Being a milk-based product, it is a good medium for microbial growth due to high nutrient value and almost neutral pH value. High temperature in summer also favours bacterial growth.

  - According to the Frozen Confections Regulation, Cap. 132AC, no person shall sell, or offer or expose for sale, any frozen confection which contains more than 50000 bacteria per gram or more than 100 coliform organisms per gram.

- **Objective**
  - The Centre for Food Safety (CFS) recently conducted a targeted food surveillance project to assess the microbiological quality of ice-cream.
Types of test

- 1000 samples of ice-cream were collected from food factories, mobile vans, supermarkets, restaurants and retail outlets for microbiological tests including:
  - *Salmonella*
  - *Staphylococcus aureus*
  - Total bacterial count (TBC)
  - Coliform organisms
Overall result

- All samples were satisfactory for pathogens.

- 2 unsatisfactory samples:

<table>
<thead>
<tr>
<th>Samples</th>
<th>Unsatisfactory testing item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Soft ice-cream</td>
<td>Coliform organisms</td>
<td>170 - 570/ g (1)</td>
</tr>
</tbody>
</table>

One of the unsatisfactory samples has been announced in 2008 Food Safety Report No.3.

(1) Coliform organisms are hygienic indicator. The detected level exceeded legal standard. Nevertheless, usual consumption is unlikely to pose significant health effect.
Follow up actions

- Warning letters were issued.

- Follow-up inspections were conducted.

- Advice on personal hygiene and cleaning of machine was given to the retail stores.
Summary

- The results for all sample were satisfactory in terms of pathogen testing.

- Only individual soft ice-cream samples exceeded the standard for hygiene indicator. It is believed to be caused by sub-optimal hygienic conditions in the course of processing at the food premises concerned.
Advice for trade

- Manufacturers
  - Ensure the products fit for consumption and meet legal requirements.
  - Obtain ingredients, such as milk, cream and ice-cream mix, from licensed and reliable sources.

- Retailers
  - Drain off and discard the leftover of soft ice-cream daily.
  - Cleanse all equipment and utensils daily.
  - Observe good hygienic practices during all preparation and handling processes. Keep both hands clean.
Advice for consumers

- Buy ice-cream from reliable shops.
- Do not buy and consume any ice-cream which is beyond expiry date or not in a good quality.
- Maintain a balanced diet. Avoid over-consuming ice-cream as it is generally high in energy.