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# Targeted Food Surveillance on Microbiological Quality of Ice-cream and Frozen Confections

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Centre for Food Safety

Food and Environmental Hygiene Department

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# Introduction

## ■ Background

- ❑ Ice-cream and frozen confections are a popular food in summer. As ice-cream is a milk-based product with high nutrient value, its almost neutral pH value rendered it to be a good medium for microbial growth. The high temperature in summer is also favourable to 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 50 000 bacteria per gram or more than 100 coliform organisms per gram.

# Introduction

- Objective
  - The Centre for Food Safety conducted a targeted food surveillance project in May and June, 2009 to assess the microbiological quality of ice-cream and frozen confections.

# Types of test

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

# Results

- All samples were satisfactory for the test of pathogens.
- Out of the 1000 samples tested, the quality and hygienic indicator (total bacterial count and coliform organisms) for 11 samples were found to exceed the legal standard. Nevertheless, usual consumption is unlikely to pose significant health effect:
  - Total bacterial count: 66 000 /g – 630 000 /g
  - Coliform organisms: 160 /g – 780 /g

# Follow up actions

- Warning letters were issued.
- Follow-up inspections were conducted.
- Advice on personal hygiene, cleaning and sanitizing of production facilities was given to the retail stores.
- Collect follow-up samples for testings.

# Summary

- The results for all sample were satisfactory in terms of pathogen testing.
- Only individual soft ice-cream, sundae and ice-cream scoop 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 are fit for consumption and can meet legal requirements.
- Obtain ingredients, such as milk, cream and ice-cream mix, from licensed and reliable sources.

## ■ Retailers & Mobile Van

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



# Advice for consumers

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