
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) conducted a targeted food surveillance project from May to July 2007 to assess the microbiological quality of ice-cream.

Types of test

- About 1100 samples of ice-cream were collected from food factories, mobile vans, supermarkets, restaurants and retail outlets for microbiological tests including:
 - *Salmonella*
 - *Staphylococcus aureus*
 - *Listeria monocytogenes*
 - *Shigella*
 - *Vibrio cholerae*
 - Total bacterial count (TBC)
 - Coliform organisms

Overall result

- All samples of ice-cream were tested negative for pathogens.
- The hygienic indicators (TBC and coliform organisms) for four samples of soft ice-cream collected from retail outlets were found to exceed the legal standard. Usual consumption is unlikely to pose significant health effect.
 - Coliform organisms: 1100/g – 1900/g
 - TBC: 54000/g – 83000/g

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 samples were satisfactory in terms of pathogen testing.
- Only individual soft ice-cream samples exceeded the standard for hygiene indicators. It is believed to be due to sub-optimal hygienic conditions during 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 reliable sources.

■ Retailers

- Drain off and discard the leftover of soft ice-cream daily.
- Cleanse 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 from reliable shops.
- Do not buy and consume any ice-cream which is out of expiry date or not in good quality.
- Maintain a balanced diet. Avoid over-eating of ice-cream as it is generally high in energy.