

# Targeted Food Surveillance on Fruit and Vegetable Products

Civic and Municipal Affairs Bureau  
Food Safety Centre



# Targeted Food Surveillance

- **Objective:** The Centre proactively identifies the potential risks of targeted food items and assesses the safety of food items commonly consumed in Macao in order to safeguard food safety.



# Targeted Food Surveillance

- The Centre conducts relevant analysis based on specific types of food. Priority will be given to the popular food items.

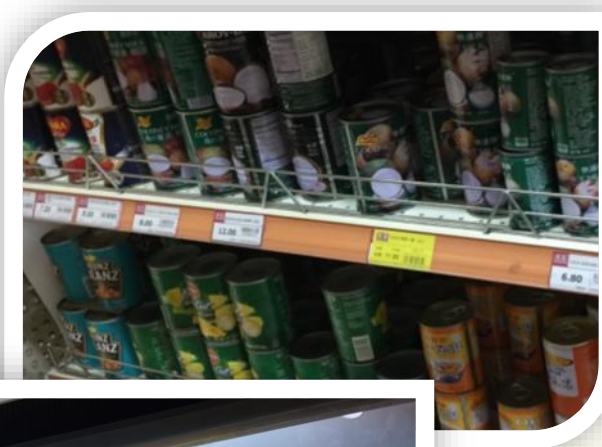
## Factors

Risk Level

Social Concern

Eating Habits

Food Incidents



# Fruit and Vegetable Products

## ■ Fruit and Vegetable Products

Refer to fruit and vegetables that have undergone freezing, drying, pickling, canning, fermentation, etc., such as pickled vegetables, vegetable juices, dried fruits and canned fruits.



# Surveillance on Fruit and Vegetable Products

- Organochlorine pesticides (OCPs) such as aldrin, DDT, dieldrin, etc. were widely used in agriculture in the past. But they have been banned in most countries due to their potential risks on the environment and food safety.
- OCPs are chemically stable and persistent in the environment. And hence, they can be easily absorbed and accumulated in agricultural products such as fruits and vegetables via contaminated water, soil and air. OCP residues cannot be eliminated even after the fruit and vegetable products are being processed.
- Therefore, the Food Safety Centre has carried out this targeted surveillance on fruit and vegetable products available in local market, in order to investigate the safety of such products.



# Market Surveillance

## Popularity

Covers fruit and vegetable products under various brands in the market.

## Origin

Japan, Korea, France, Portugal, UK, Germany, Canada, China, Hong Kong and Taiwan, etc.

## Location

Local supermarket and department stores.



# Types of Samples

■ Collected a total of 40 samples of fruit and vegetable products, which include:

Fruit  
Products  
50%

Vegetable  
Products  
50%



# Test Parameters

## ■ Pesticide residues

Aldrin, DDT, Dieldrin, HCH, Chlordane, Mirex, Heptachlor and Endrin, a total of 8 tests.





# Test Results of Fruit and Vegetable Products (Partial)

Sample Name	Packaging Condition	Origin	Test parameters	Test Result
Baked Beans in Tomato Sauce	Pre-packaged	UK	<b>Pesticide residues:</b> Aldrin, DDT, Dieldrin, HCH, Chlordane, Mirex, Heptachlor and Endrin	Satisfactory
Preserved Cabbage	Pre-packaged	China		Satisfactory
Vegetable Juice	Pre-packaged	USA		Satisfactory
Cabbage Kimchi	Pre-packaged	Korea		Satisfactory
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# Test Results of Fruit and Vegetable Products (Partial)

Sample Name	Packaging Condition	Origin	Test parameters	Test Result
Dried Figs	Pre-packaged	Korea	<b>Pesticide residues:</b> Aldrin, DDT, Dieldrin, HCH, Chlordane, Mirex, Heptachlor and Endrin	Satisfactory
Olives	Pre-packaged	Taiwan		Satisfactory
Pure Apple Juice	Pre-packaged	UK		Satisfactory
Pineapple Slices in Heavy Syrup	Pre-packaged	Philippines		Satisfactory
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# Test Results

- All the samples were satisfactory. The overall **satisfactory rate was 100%** ;
- Although the results were satisfactory, but some of the fruit and vegetable products are high in sugar and salt. Therefore, IACM reminds the public to maintain a balanced diet, and consume moderate amount of fruit and vegetable products.

## Reference:

Codex Maximum Residue Limits for Pesticides and Extraneous Maximum Residue Limits, China GB 2763-2016 "National Food Safety Standard MRL of Pesticides in Food" and Hong Kong "Pesticide Residues in Food Regulation" (Cap. 132CM) .



# Advice to The Public

## When purchasing fruit and vegetable products:

- Purchase from approved and reliable sources;
- Check the package if it is intact and pay attention to the expiry date;
- Store the products properly according to the label instructions after purchase, and consume as soon as possible after opening;
- When purchasing food online, it is not easy to verify whether appropriate measures have been put in place during storage, transport, etc. to ensure food safety. The public should pay special attention to the nature and potential risks associated with the food items that they intend to purchase online;
- Do not purchase or eat any food if in doubt about its safety or quality.

# Advice to The Trade

- The trade should purchase food products from reputable suppliers, store and display food properly, and ensure each stage of food processing such as transportation and storage comply with the hygiene and safety requirements;
- The trade should keep the purchase and sales records for products tracing by the competent government authorities whenever necessary;
- Do not buy or sell any food if in doubt about its safety or quality, e.g. if the packaging is damaged, with abnormal smell, etc..





# Released Results And Enquiries

The Centre releases food surveillance results and precautions through the following channels:

- Press release;
- Food Safety Information website and Food Safety Information App.





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Safe food. Safe Consumption

安全  
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