

Targeted Food Surveillance on Pre-packaged Vegetable and Fruit Products

Civic and Municipal Affairs Bureau
Food Safety Centre

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Targeted Food Surveillance

- **Objective:** The Centre proactively identifies potential risks of the 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 the types of food. Priority will be given to the popular food items.

Factors

Risk Level

Social Concern

Eating Habits

Food Incidents



Pre-packaged Vegetable and Fruit Products

■ Vegetables and Fruits

Including vegetables (leafy vegetables, melons, legumes, etc.) and fruits (citrus fruits, pome fruits, etc.).

■ Pre-packaged Vegetable and Fruit Products

Pre-packaged vegetables and fruits are products which are processed by freezing, drying, preserving, canning, fermenting, etc. and they are sealed in food grade packaging bags or containers.



Surveillance on Pre-packaged Vegetable and Fruit Products

- Pre-packaged vegetables and fruits are products made by processed vegetables and fruits. Vegetables and fruits can easily absorbed and accumulated heavy metals through contaminated water, soil or air, etc. during cultivation. These heavy metals enter the human body through the food we eat.
- Heavy metals in the environment are not biodegradable, and once heavy metals entered the human body, they are difficult to be decomposed or metabolized. Prolonged intake of foods contaminated with heavy metals may result in accumulation of heavy metals inside the body and thus, posing a risk to human health.

Surveillance on Pre-packaged Vegetable and Fruit Products (Cont.)

- In addition, vegetables and fruits are perishable, and hence, food additives (such as preservatives) may be added by the trade to extend the shelf life, enhance the flavor and texture of pre-packaged vegetable and fruit products.
- Therefore, the Food Safety Centre of IACM has carried out this targeted surveillance on heavy metals and food additives in pre-packaged vegetable and fruit products available in local market, in order to investigate the safety of such products.



Market Surveillance

Popularity

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

Country or Region of Origin

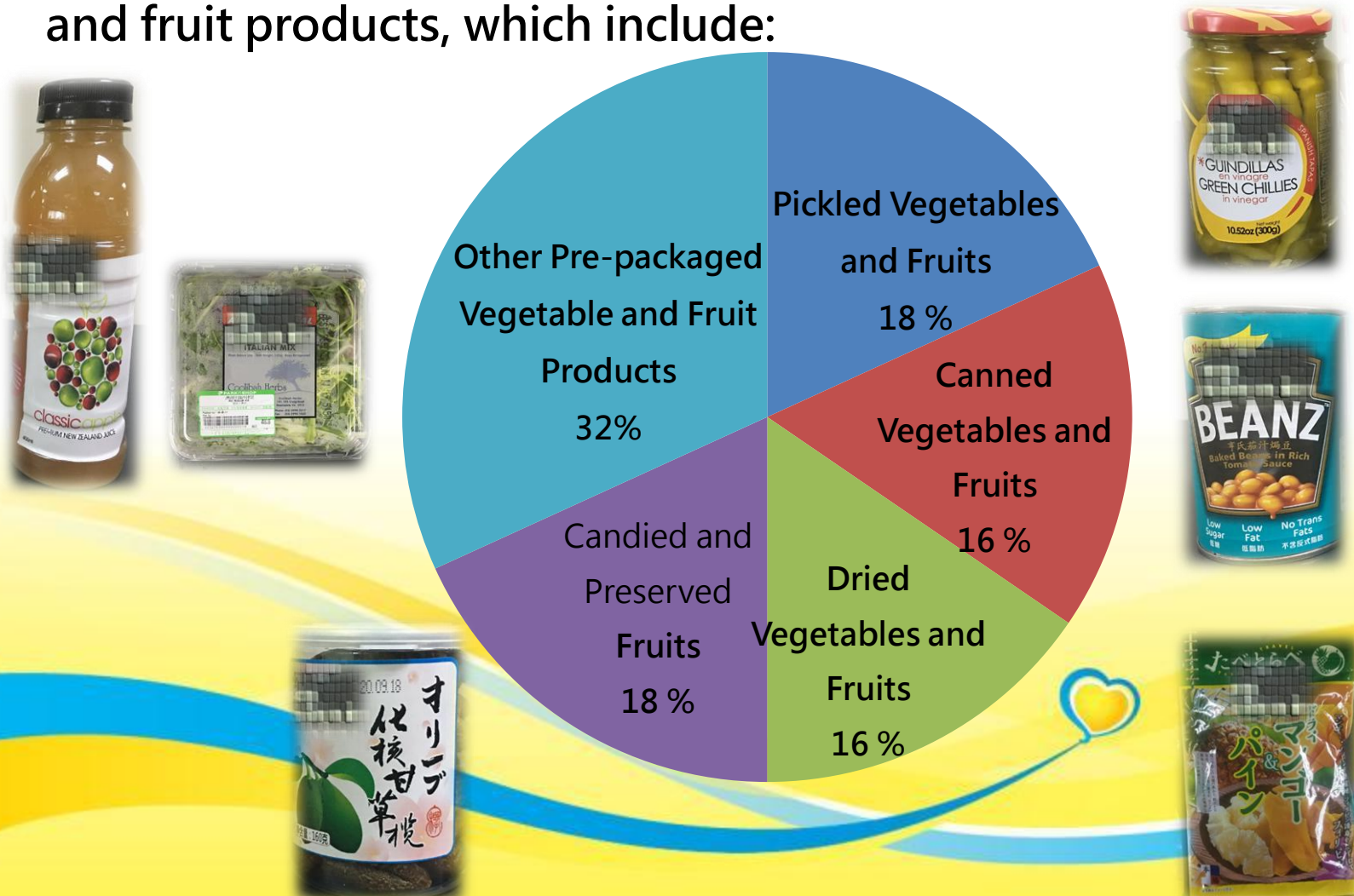
Mainland China, Taiwan, Hong Kong, Japan, Korea, France, UK, Germany, Spain, Italy, US, etc..

Location

Local supermarkets and department stores.

Types of Samples

■ Collected a total of 110 samples of pre-packaged vegetable and fruit products, which include:



Test Parameters

■ Heavy metals

Lead, cadmium, total arsenic, total mercury and tin, a total of 5 tests.

■ Food Additives

Benzoic acid, sorbic acid and sulphur dioxide, a total of 3 tests.



Test Results of Pre-packaged Vegetable and Fruit Products Samples (Partial)

Sample Name	Packaging Condition	Origin	Test parameters	Test Result
Pickled Cucumber	Pre-packaged	Germany	Heavy metals: Lead, cadmium, total arsenic and total mercury Food Additives: Benzoic acid, sorbic acid and sulphur dioxide	Satisfactory
Green Chillies in Vinegar	Pre-packaged	Spain		Satisfactory
Dried Tomatoes in Olive Oil	Pre-packaged	Italy		Satisfactory
Premium Sweet Gherkins	Pre-packaged	US		Satisfactory
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Test Results of Pre-packaged Vegetable and Fruit Products Samples (Partial)

Sample Name	Packaging Condition	Origin	Test parameters	Test Result
Classic Apple	Pre-packaged	Italy	Heavy metals: Lead, cadmium, total arsenic, total mercury and tin Food Additives: Benzoic acid, sorbic acid and sulphur dioxide	Satisfactory
Pure Coconut Milk	Pre-packaged	Indonesia		Satisfactory
Orange Jigge	Pre-packaged	UK	Heavy metals: Lead, cadmium, total arsenic and total mercury Food Additives: Benzoic acid, sorbic acid and sulphur dioxide	Satisfactory
Cut Kimchi	Pre-packaged	Korea		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 pre-packaged vegetable and fruit products are high in sugar and salt. IACM therefore reminds the public to maintain a balanced diet, and consume moderate amount of pre-packaged vegetable and fruit products;
- In addition, individuals who are sensitive to food additives, such as sulphur dioxide, should read the food label carefully when purchasing pre-packaged vegetable and fruit products.

Reference:

CODEX STAN 193-1995 "General Standard for Contaminants and Toxins in Food and Feed" , CODEX STAN 192-1995 "General Standard for Food Additives" , China GB 2762-2012 "Maximum Levels of Contaminants in Foods" , GB2760-2014 "Standard for Uses of Food Additives" , Hong Kong "Food Adulteration (Metallic Contamination) Regulations" and "Preservatives in Food Regulation" , etc..

Advice to The Public

When purchasing pre-packaged vegetable and fruit 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 product 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 packaging is damaged, with abnormal smell, etc..





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Safe food. Safe Consumption

安全
食品
安心
食得

Alimentar-se com segurança e prazer

