

本期內容 IN THIS ISSUE

- ❖ 海魚中的寄生蟲
- ❖ 豆腐—大豆製成的傳統素食
- ❖ 軟雪糕衛生：給業界和消費者的提醒
- ❖ 食物安全日2026 — 手望幸福 — 洗手靠視液，食安幸福易尋覓
- ❖ 風險傳達工作一覽
- ❖ Parasites in Marine Fish
- ❖ Bean Curd – a Traditional Vegetarian Food Produced from Soybeans
- ❖ Soft Ice-cream Hygiene: Reminder to the Trade and Consumers
- ❖ Food Safety Day 2026 – Love at the First Wash – Wash Hands Like a Germ Killer, Stay Clean Like No Other
- ❖ Summary of Risk Communication Work

編輯委員會 EDITORIAL BOARD

總編輯
張勇仁醫生
顧問醫生(社會醫學)(風險評估及傳達)
行政編輯
龔健恒醫生
首席醫生(風險評估及傳達)
委員
傅玉清醫生 首席醫生(風險管理)
曾然宙獸醫 高級獸醫師(獸醫公共衛生)
韓銘騰先生 高級總監(食物安全中心)
林明偉先生 高級總監(食物安全中心)
譚秀琼醫生 主管(風險評估組)
唐小娟博士 高級化驗師(食物研究化驗所)
Editor-in-chief
Dr. Terence CHEUNG
Consultant (Community Medicine)
(Risk Assessment and Communication)
Executive Editor
Dr. K H KUNG
Principal Medical Officer
(Risk Assessment and Communication)
Members
Dr. Alex FU
Principal Medical Officer (Risk Management)
Dr. Benedict TSANG
Senior Veterinary Officer (Veterinary Public Health)
Mr. M S HON
Senior Superintendent (Centre for Food Safety)
Mr. M W LAM
Senior Superintendent (Centre for Food Safety)
Dr. Carole TAM
Head (Risk Assessment Section)
Dr. S K TONG
Senior Chemist (Food Research Laboratory)

海魚中的寄生蟲 Parasites in Marine Fish

食物安全中心風險評估組
科學主任莊梓傑博士報告

Reported by Dr. Ken CHONG, Scientific Officer,
Risk Assessment Section, Centre for Food Safety

背景

近日，一段顯示有活生生的線狀寄生蟲從生魚刺身中鑽出的本地短片在社交媒體上廣泛流傳，引起公眾高度關注。這再次凸顯了進食生魚固有的微生物風險。事實上，海魚可能帶有存在於其自然生長環境中的寄生蟲。

海魚中的寄生蟲

寄生蟲與細菌一樣，天然存在於環境中，當中部分可令人類感染致病。其中，異尖科線蟲的蛔蟲和裂頭絛蟲科的絛蟲，是海魚捕食了受感染的甲殼類動物（即寄生蟲生命週期中的中間宿主）而感染的。

兩種蛔蟲，即海獸胃線蟲和前盲囊線蟲，最常與因進食生海產而引致的人類疾病有關。這些寄生蟲的第三期幼蟲通常寄生在海魚和魷魚的腸繫膜和骨骼肌組織內。牠們常見於鯉魚、鱈魚、鯖魚和杜父魚等捕食性魚類中。當人類進食了帶有活第三期幼蟲的受感染魚類，寄生蟲便可能嘗試穿透胃壁或腸壁，通常在進食後數小時內引起急性腸胃症狀。大多數感染都能自行痊癒，因為幼蟲無法在人體內長期存活，但相關的組織損傷可能會引發持續較長時間的症狀。

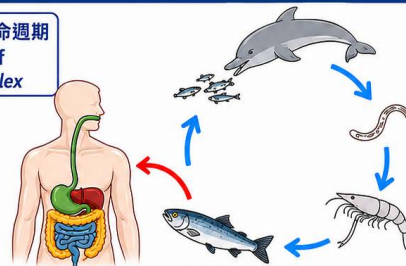
至於裂頭絛蟲科，在魚類身上發現的感染性幼蟲階段稱為裂頭蚴。這種絛蟲可在人體腸道內發育為成蟲。這科的寄生蟲可見於淡水魚和海魚，包括鱸魚、白斑狗魚和三文魚。受感染人士可能會出現嘔吐、腹部不適、抽筋和腹瀉等症狀，並可能在糞便中排出帶狀的節片。此外，這些寄生蟲可引致慢性感染，蟲體長度可超過10米，最終阻礙宿主吸收維他命B12。

Background

Recently, a local short video showing a live thread-like parasite wiggling out of a piece of raw fish sashimi was widely circulated on social media, drawing much public attention. This underscores again the inherent microbiological risks associated with consuming raw fish. In fact, marine fish may contain parasites that are present in their growing environments.

降低養殖海魚的寄生蟲風險—以養殖三文魚中的海獸胃線蟲為例 Reducing the risk of parasites in farmed seawater fish with *Anisakis simplex* in farmed salmon as an example

海獸胃線蟲的生命週期 Life cycle of *Anisakis simplex*



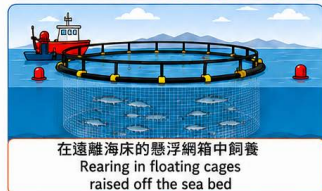
寄生蟲在發育過程中通常會經過多個中間宿主。三文魚是從中間宿主身上感染異尖線蟲幼蟲。

Parasites usually pass through a number of intermediate hosts in their development. Salmon gets anisakid larvae from an intermediate host.

防止攝入具感染性的異尖線蟲幼蟲

Prevent ingesting infective anisakid larvae

1



在遠離海床的懸浮網箱中飼養
Rearing in floating cages raised off the sea bed



在陸上水槽中飼養
Rearing in on-shore tanks

2



餵飼人工顆粒飼料（不含寄生蟲）
Feeding an artificial pelleted diet (free of parasite)



良好的管理和生物保安措施能降低寄生蟲風險，有助生產更安全的海產。
Good management and biosecurity reduce the risk of parasites and help produce safer seafood.

圖1：降低海魚的寄生蟲風險—養殖三文魚中的海獸胃線蟲
Figure 1: Reducing the risk of parasites in marine fish - *Anisakis simplex* in farmed salmon

Parasites in Marine Fish

Similar to bacteria, parasites are a natural part of the environment, and some of them are pathogenic to humans. Among these, roundworms of the family Anisakidae and tapeworms of the family Diphyllbothriidae are acquired by marine fish when they feed on infected crustaceans, which serve as intermediate hosts in the parasites' life cycles.

Two roundworm species, namely *Anisakis simplex* and *Phocanema decipiens* (formerly *Pseudoterranova decipiens*), are most commonly associated with human illness resulting from raw seafood consumption. The third-stage (L3) larvae of these species typically lodge within the tissues of the mesenteries and skeletal muscle of marine fish and squid. They are most common in predatory species of fish such as herring, cod, mackerel and sculpin. When humans eat infected fish

不含寄生蟲的海魚刺身？

海魚刺身雖然帶有受寄生蟲污染的風險，但仍是極受歡迎的美食。在實際操作下，適當的冷藏處理可有效管理這種生物危害；較低的中心溫度加上較長的冷藏時間，能大幅降低寄生蟲的存活率。將魚的中心溫度冷藏至攝氏零下20度超過24小時，可消滅海魚刺身及其他未經徹底煮熟的魚產品（例如冷燻魚和醃製三文魚）中常見的寄生蟲。然而，要殺死吸蟲則需要更嚴格的條件，例如在攝氏零下20度冷藏七天或在攝氏零下35度冷藏24小時。

除了冷藏處理外，在生產階段初期實行嚴謹的寄生蟲控制計劃，亦能大幅降低風險。使用不含寄生蟲的人工飼料和維持受控的水產養殖環境，是關鍵的預防措施（見圖1）。封閉式水產養殖系統能有效切斷野生魚群中天然存在的寄生蟲傳播週期。提供海魚刺身的食肆可核實有關降低寄生蟲風險措施的證明文件，有助確保食物安全。

雖然部分消費者因為特定的口感和風味而偏好由野生捕獲魚類製成的海魚刺身，但由於野生魚類的開放式棲息環境無法受控，其感染寄生蟲的可能性亦顯著較高。因此，經核實的冷藏處理，仍然是保障任何擬供生吃的野生捕獲魚類安全的關鍵。儘管如此，消費者應注意進食生魚存在固有風險。即使採取了降低寄生蟲風險的措施，肉眼看不見的細菌和病毒仍可能存在。

注意事項：

1. 寄生蟲天然存在於海魚中。海魚通常是在食物鏈中捕食了受感染的甲殼類動物而受感染。
2. 冷藏處理能可靠地殺死魚類中的寄生蟲，但必須根據特定的目標寄生蟲，採用不同的溫度與時間組合。
3. 在防範寄生蟲風險方面，冷藏處理是擬供生吃野生捕獲魚類必不可少的安全保障；至於養殖魚類，全面的寄生蟲控制計劃（包括受控飼料和封閉式養殖環境）則能有效消除有關風險。

給市民的建議

- 購買這類高風險食物時，應光顧可靠及領有牌照的食肆，或持有獲准售賣刺身批簽的受限制食物售賣許可證的處所。
- 高危人士，包括長者、幼童、孕婦和免疫力較弱的人士，應避免進食生魚。

給業界的建議

- 取得由出口國有關當局簽發並獲食物環境衛生署署長認可的正式衛生證明書，證明有關食物配料適宜供生食，或向獲食物環境衛生署（食環署）認可的來源採購食物配料。
- 向食環署申領製造及/或售賣壽司及刺身的相關牌照/許可證。

harbouring live L3 larvae, the parasites will attempt to penetrate the gastric or intestinal lining, causing acute gastrointestinal symptoms, usually within hours of ingestion. Most infections are self-limiting as the larvae cannot survive long-term inside human, but the associated tissue damage can cause longer-lasting symptoms.

Regarding the family Diphyllbothriidae, the infective larval stage found in fish is known as a plerocercoid, which can mature into an adult tapeworm inside the human gut. Members of this family can be found in both freshwater and marine fishes, including perch, pike and salmon. Infected people may experience vomiting, abdominal discomfort, cramps, diarrhoea and shed ribbon-like proglottids in their faeces. Furthermore, these parasites can cause chronic infection where the worm can exceed 10 metres in length, eventually depriving the host of Vitamin B₁₂ absorption.

Parasite-free Marine Fish Sashimi?

While a risk of parasitic contamination exists in marine fish sashimi, it remains a highly popular culinary choice. In practice, this biological hazard can be effectively managed through proper freezing treatments; a lower core temperature combined with a longer duration significantly minimises parasite survival rates. Common parasites found in marine fish sashimi and other undercooked fishery products (e.g. cold-smoked fish and gravlax) can be inactivated by freezing the core of the fish to -20°C for more than 24 hours. However, more stringent parameters, such as -20°C for seven days or at -35°C for 24 hours, are required for killing flukes.

Beyond freezing, robust parasite control programmes at the primary production level can substantially mitigate the risks. Utilising parasite-free artificial feed and maintaining controlled aquaculture environments are critical interventions (see Figure 1). Closed aquaculture systems effectively sever the transmission cycle of parasites that naturally occur in wild populations. For food premises serving marine fish sashimi, verifying documentation on relevant risk reduction measures for parasites helps to ensure food safety.

Although some consumers prefer marine fish sashimi made from wild-caught fish due to its specific texture and flavour, wild catches present a significantly higher likelihood of parasite infestation because their open habitats cannot be controlled. Consequently, a validated freezing treatment remains a mandatory safeguard for any wild-caught fish intended for raw consumption. That said, consumers should note that there are inherent risks of consuming raw fish. Despite measures to reduce the risk of parasites, bacteria and viruses that cannot be seen by the naked eyes may still be present.

Key Points to Note:

1. Parasites naturally occur in marine fish, which typically contracts them by consuming infected crustaceans within the food chain.
2. Freezing can reliably kill parasites in fish, though different combinations of temperature and holding time must be applied depending on the specific parasite being targeted.
3. Freezing is an essential safeguard for wild-caught fish consumed raw in terms of parasitic risk, whereas comprehensive parasite control programmes (incorporating controlled feeds and closed environments) can successfully eliminate these risks in cultured fish.

Advice to the Public

- Patronise reliable licensed food premises/holders of restricted food permits with endorsement for the sale of sashimi when buying this high-risk food.
- Susceptible populations, including the elderly, young children, pregnant women and people with weakened immune systems are advised not to consume raw fish.

Advice to the Trade

- Obtain an official health certificate issued by the relevant authority of the exporting country and acceptable to the Director of Food and Environmental Hygiene, certifying that such food materials are suitable for consumption in the uncooked state, or obtain food materials supplied by a source approved by the Food and Environmental Hygiene Department (FEHD).
- Obtain a relevant licence/permit from the FEHD for the manufacturing and/or sale of sushi and sashimi.

豆腐—大豆製成的傳統素食

Bean Curd – a Traditional Vegetarian Food Produced from Soybeans

食物安全中心風險評估組
營養科主任梁喜媚女士報告

Reported by Ms. Amy LEUNG, Dietitian,
Risk Assessment Section, Centre for Food Safety

本文承接上期的討論，將焦點由豆類轉向豆腐。豆腐是一種常見的大豆制品，這款傳統食物質地軟滑、營養豐富，而且食法多樣。豆腐的製作過程包括將大豆浸

In this article, we continue our discussion from the last issue with a shifted focus from pulses to bean curd. One commonly eaten soybean product is bean curd (tofu), a soft and nutritious traditional food that is versatile and can be enjoyed in many ways. Bean curd is made

泡、研磨、烹煮並過濾成豆漿，然後加入硫酸鈣或氯化鎂等凝固劑，使混合物分離並凝結成塊狀。在「[健康飲食金字塔](#)」中，豆腐是屬於「肉、魚、蛋及替代品」類別。

by soaking, grinding, cooking and filtering soybeans into soy milk, then adding coagulants such as calcium sulphate or magnesium chloride to separate the mixture and form curds. Bean curd is classified as "Meat, Fish, Egg, and Alternatives group" under the [Healthy Eating Food Pyramid](#) – Meat, Fish, Egg and Alternatives.



圖2: 正確處理豆腐的方法
Illustration 2: Proper handling of bean curd

營養特點與健康益處

豆腐是優良的蛋白質來源，含有所有人體必需的氨基酸。它飽和脂肪含量低、不含膽固醇，而且含豐富鈣和鐵。每100克普通豆腐提供約8.08克蛋白質、0.69克飽和脂肪、1.06克單元不飽和脂肪、2.7克多元不飽和脂肪、350毫克鈣和5.36毫克鐵。蛋白質有助促進身體生長及修復細胞。鐵是血紅蛋白的主要成分，有助紅血球將氧氣從肺部輸送到身體各部位。鈣質有助維持骨骼健康及預防骨質疏鬆症。由於豆腐是大豆製品之一，以下將介紹大豆對心臟健康和預防乳癌的益處：

大豆有助維持心臟健康，含水溶性纖維，亦是可替代肉類的植物蛋白質來源。水溶性纖維在腸道內會與膽汁酸結合，促進其排出體外。肝臟隨後會從血液中提取低密度脂蛋白膽固醇來合成新的膽汁酸，從而降低低密度脂蛋白膽固醇水平並減少患上心臟病的風險。以大豆及其製品取代部分肉類（特別是肥肉），能以較健康的不飽和脂肪取代部分飽和脂肪，並減少膽固醇攝取量，這亦有助減少低密度脂蛋白膽固醇的合成。

大豆及其製品含有植物雌激素（異黃酮），在人體內具有減弱的雌激素特性，會令雌激素的製造量減少。科學家對此機制進行了研究，以了解食用大豆與乳癌發病率之間的關聯。一項於2022年發表的統合分析指出，在收經前後的婦女中，攝取大豆異黃酮的份量與乳癌發病率呈負相關。然而，該報告的作者亦指出，目前關於大豆及異黃酮對乳癌的影響及結果仍存在有爭議。

安全配製豆腐

在衛生條件下生產及貯存的豆腐通常是可安全食用的，但作為新鮮大豆製品，它極容易變壞。為確保食物安全，新鮮豆腐應存放在攝氏4度或以下的雪櫃內。為了保持食用質素，例如處理布包豆腐時，烹調前可將其暫存於有蓋容器內，並浸沒在清潔的冷水中，這有助保持豆腐的形狀及水分。由於貯存時間可能因食物來源（如街市或預先包裝產品）而異，加上豆腐有時會作為即食食物進食，因此建議消費者在購買或開封後盡快食用。如需較長時間貯存，可將新鮮豆腐放入冰格，不過其質感可能會改變。

在受控發酵過程下生產的腐乳是安全的。然而，不當或不衛生的發酵過程可能導致微生物污染。在近期的食物事故中，發現有腐乳受蠟樣芽孢桿菌污染。因此，消費者應只向信譽良好的供應商購買、檢查腐乳的有效日期，並在建議期限內進食完畢，以及遵從「[食物安全五要點](#)」。

Nutritional Characteristics and Health Benefits

Bean curd is a good source of protein containing all the essential amino acids. It is low in saturated fat, cholesterol-free, and rich in calcium and iron. A 100 g serving of regular bean curd provides about 8.08 g of protein, 0.69 g of saturated fat, 1.06 g of monounsaturated fat, 2.7 g of polyunsaturated fat, 350 mg of calcium, and 5.36 mg of iron. Protein promotes body growth and repairs cells. Iron is a key component of haemoglobin, which helps red blood cells carry oxygen from the lungs to the rest of the body. Calcium supports bone health and helps prevent osteoporosis. Since bean curd is one of the products made from soybeans, soybean's benefits for heart health and breast cancer prevention are covered below:

Soybeans support heart health through their soluble fibre content and as a plant-based protein substitute for meat. Soluble fibre binds bile acids in the intestine, promoting their excretion. The liver then draws LDL cholesterol from the blood to synthesise new bile acids, thereby lowering LDL levels and reducing the risk of heart disease. By partly replacing meat (particularly fatty meat) with soybeans and their products, some saturated fats can be displaced with healthier unsaturated fats and cholesterol intake can be reduced, which can help reduce LDL synthesis.

Soybeans and their products contain phytoestrogens (isoflavones), which have weakened oestrogen properties in the body, resulting in a decrease of estrogen production. This mechanism has been investigated by scientists to correlate the effect of soy consumption and breast cancer occurrence. A meta-analysis published in 2022 reported an inverse correlation between the amount of soy isoflavones consumed and breast cancer occurrence in pre- and post-menopausal women. However, the authors noted that there remained controversy on the effects and outcomes of soy and isoflavones on breast cancer.

Safe Preparation of Bean Curd

Bean curd is generally safe to consume when produced and stored under hygienic conditions, but as a fresh soybean product, it is highly perishable. To ensure food safety, fresh bean curd should be kept in the refrigerator at 4°C or below. To maintain eating quality, for example with wrapped bean curd, keep it in a covered container and submerge it in clean, cold water for temporary storage before cooking. This can help preserve its shape and moisture. As storage times may vary depending on the food source (e.g. wet market or prepackaged products) and since bean curd is sometimes consumed as a ready-to-eat food, consumers are advised to eat it as soon as possible after purchase or opening. For longer storage, fresh bean curd can be frozen, though texture may change.

Fermented bean curd is safe when produced under controlled fermentation. However, improper or unhygienic fermentation may lead to microbial contamination. In recent food incidents, fermented bean curd has been found contaminated with *Bacillus cereus*. Consumers should therefore purchase only from reputable sources, check the expiry dates of the fermented bean curds and consume within the

由於豆腐由大豆製成，而大豆是已被確認的致敏物，對大豆敏感的人士應避免食用，並仔細閱讀食物標籤。

豆腐營養豐富，可作為健康及均衡飲食的一部分。在各式菜餚中明智地加入豆腐，能獲得其營養的益處。市民應限制進食炸豆腐、豆卜和腐乳，因為它們的脂肪和鈉含量較高。烹調時應選擇低脂的方法，例如蒸、用湯煮熟或少油快炒。需要個人化健康建議的人士，應諮詢營養師或醫護人員。

recommended period, and follow the "[Five Keys to Food Safety](#)".

As bean curd is made from soybeans which are a recognised allergen, individuals with soy allergy should avoid consumption and check food labels carefully.

Bean curd is nutritious and can form part of a healthy, balanced diet. Include it wisely in various dishes to make the most of its nutritional benefits. Limit the consumption of deep-fried bean curd, fried bean curd puffs and fermented bean curd, as they are higher in fat and sodium. Choose low-fat cooking methods, such as steaming, boiling in soup or stir-frying in less oil. Individuals who need personalised health advice should consult a dietitian or healthcare professional.

軟雪糕衛生：給業界和消費者的提醒

Soft Ice-cream Hygiene: Reminder to the Trade and Consumers

繼2026年5月發現有軟雪糕樣本的大腸菌群含量超出法例上限後，食物安全中心（食安中心）已指示涉事商戶停售及棄置受影響產品，並須每天徹底清潔和消毒軟雪糕調配分售機。食安中心亦已向相關店主及員工提供食物安全和衛生教育。

雖然大腸菌群是衛生指標的微生物，它未必具有致病潛力，但食安中心已加強巡查全港的冰凍甜點製造廠，並為他們提供相關的食物衛生教育。食安中心已致函業界，提醒業界須保持良好衛生習慣並遵守相關的食物安全指引，包括《[在零售點配製即時食用的冰凍甜點](#)》指引。為進一步促進業界遵從衛生要求，食安中心將為業界舉辦有關製造冰凍甜點的講座。

高危人士（尤其是孕婦）應避免進食軟雪糕，以免受李斯特菌污染的風險影響。感染李斯特菌可導致流產或令新生嬰兒患上嚴重疾病。

Following the detection of soft ice-cream samples with coliform counts exceeding the legal limits in May 2026, the Centre for Food Safety (CFS) instructed the vendors concerned to stop sales, dispose of the affected products, and thoroughly [clean and disinfect the ice-cream dispenser machines](#) on a daily basis. The CFS has also provided food safety and hygiene education to shop owners and staff.

Although coliforms are hygiene indicator organism that may not have pathogenic potential, the CFS has enhanced its inspections of frozen dessert manufacturing plants across Hong Kong and provided them with relevant food hygiene education. The CFS has issued a letter to the trade reminding the sector to maintain good hygiene practices and comply with relevant food safety guidelines, including guidelines on [Frozen Confections Prepared at Points of Sale for Immediate Consumption](#). To further strengthen compliance with hygiene requirements, the CFS will organise a [talk](#) on the manufacture of frozen desserts for the trade.

[Susceptible populations](#), especially pregnant women, are advised to avoid soft ice-cream due to the risk of [Listeria bacteria contamination](#). *Listeria* infection can lead to miscarriage or serious illnesses in newborn babies.

食物安全日2026 — 手望幸福 — 洗手靠規液，食安幸福易尋覓

Food Safety Day 2026 – Love at the First Wash – Wash Hands Like a Germ Killer, Stay Clean Like No Other

食物安全日（6月7日）響應聯合國的[世界食品安全日](#)，是一項每年舉辦的活動，旨在提高市民對本港食物安全議題的關注。今年，活動以清潔雙手為主題，因為這是「[食物安全五要點](#)」的重要一環。假如食物處理人員未有妥善清潔雙手，有害微生物便可能由人及生的食材傳播到工作枱面、用具和即食食物。當中亦可能包括對抗菌素產生耐藥性的細菌，即所謂「[超級細菌](#)」。

用規液和清水洗手至少20秒，是預防食源性疾病最有效的方法之一。在處理食物前後，以及雙手可能受到污染時，例如觸摸面部、咳嗽或打噴嚏後、如廁後、吸煙後、接觸金錢、垃圾、手提電話、化學品或生的食材後，都應洗手。接觸寵物後，亦應清潔雙手。

響應[食物安全日2026](#)，讓我們一起保持雙手清潔，以減少食源性疾病。

Food Safety Day (FSD) (7 June), which echoes with the [World Food Safety Day](#) of the United Nations, is an annual event which highlights food safety issues of local interest. This year, we focus on the importance of clean hands as an important component of the "[Five Keys to Food Safety](#)". When food handlers' hands are not properly cleaned, harmful microorganisms can spread from people and raw ingredients to work surfaces, utensils and ready-to-eat food. This may also include bacteria that are resistant to antimicrobials, also known as "[superbugs](#)".

Washing hands with liquid soap and water for at least 20 seconds is one of the most effective defences against foodborne illness. [It should be done](#) before and after handling food, and whenever hands may be contaminated — for example, after touching the face, coughing or sneezing, using the toilet, smoking, handling money, waste, mobile phones, chemicals or raw ingredients. One should also wash hands after touching pets.

To echo [FSD 2026](#), let us keep hands clean to reduce foodborne illnesses.



風險傳達工作一覽（二零二六年五月）

Summary of Risk Communication Work (May 2026)

事故/ 食物安全個案
Incidents/ Food Safety Cases:
401

公眾查詢
Public Enquiries:
133

業界查詢
Trade Enquiries:
163

食物投訴
Food Complaints:
638

給業界的快速警報
Rapid Alerts to Trade:
5

給消費者的食物警報
Food Alerts to Consumers:
1

教育研討會/ 演講/ 講座/ 輔導
Educational Seminars/ Lectures/
Talks/ Counselling:
42

上傳到食物安全中心網頁的新訊息
New Messages Put on the
CFS Website:
48