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焦點個案 Incident in Focus

二零一六年食物事故回顧

Review of Food Incidents in 2016

食物安全中心
風險管理組
沙潔瑜醫生報告

Reported by Dr. Eliza KY SHA, Medical & Health Officer,
Risk Management Section,
Centre for Food Safety

食物是生命不可或缺的。然而，不安全的食物構成全球健康威脅，危及所有人。作為香港的食物監管機構，食物安全中心(中心)一直透過不同渠道積極監察本地及海外食物事故。一旦監察到可能影響本港市民健康的食物事故，中心便會推出適當的管制措施。

二零一六年的食物事故

二零一六年，中心共監察到約1 400宗食物事故，以及450宗因未有標示致敏物而發起的食物回收行動，數字與二零一五年相若。中心已就監察到的所有食物事故進行風險評估，並針對關乎本港市民健康的事故採取跟進行動。

針對這些事故，中心在二零一六年發出了32則業界警報、183則食物事故報表及42則新聞公報。事故涉及的危害類型包括微生物(例如李斯特菌、沙門氏菌、大腸桿菌等)、化學物(例如使用未經許可/過量的防腐劑、未有標示致敏物)及物理(例如異物)危害，半數以上個案與微生物危害有關(見圖)。

重要食物事故

下文各段載述二零一六年曾引起公眾及傳媒廣泛關注的三宗重要食物事故。

1. 大閘蟹被檢出含有二噁英的事故

二零一六年九月底，中心在時令食物監察計劃下抽取大閘蟹樣本進行檢測，發現從進口層面抽取的兩個江蘇省水產養殖場的兩個大閘蟹樣本含有二噁英及二噁英樣多氯聯苯，含量超出中心所採用的行動水平。為保障公眾健康，中心採取了一連串跟進行動，包括：即時(二零一六年十一月一日)暫停進口及出售兩個

Food is indispensable to lives, but unsafe food poses global health threats and endangers all walks of life. As the food authority in Hong Kong, the Centre for Food Safety (CFS) has been actively monitoring local and overseas food incidents through various channels. Upon identifying food incidents that may affect local public health, appropriate control measures will be initiated.

Food Incidents in 2016

In 2016, the CFS identified about 1 400 food incidents and another 450 food recalls related to undeclared allergens, which are similar to the figures in 2015. The CFS conducted risk assessments on all food incidents identified and took follow up actions for those with local public health relevance.

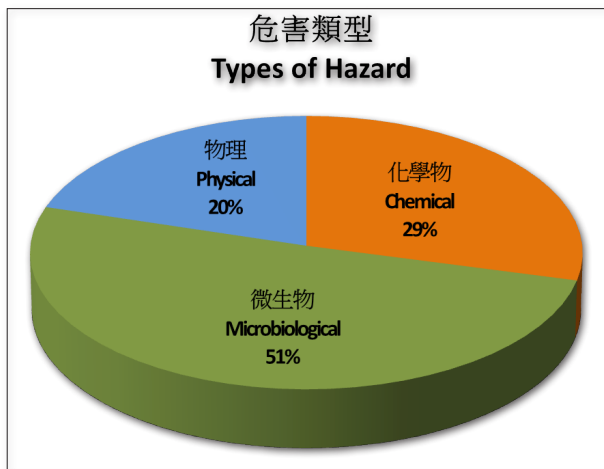
In response to these incidents, the CFS issued 32 trade alerts, 183 food incident posts and 42 press releases in 2016. The hazards identified included microbiological (e.g. *Listeria*, *Salmonella*, *E. coli*, etc.), chemical (e.g. use of unauthorised/excessive preservatives, undeclared allergens) and physical (e.g. foreign body), with over 50% of cases related to microbiological hazards (see Figure).

Important Food Incidents

Three important food incidents which attracted considerable interest from the public and the media in 2016 are described in the following paragraphs.

1. Incident of hairy crabs detected with dioxins

In late September 2016, the CFS collected hairy crab (also known as mitten crab) samples for testing under the seasonal food surveillance programme. Two of the samples collected at import level from two aquaculture farms in Jiangsu Province were found to contain dioxins and dioxin-like polychlorinated biphenyls (PCBs) at levels exceeding the CFS's action level. To safeguard public health, the CFS has taken a series of follow-up actions, including immediately



本港就食物事故所發出的警報中涉及的危害類型
Types of hazard involved in local alerts due to food incident

焦點個案
Incident in Focus

涉事水產養殖場的大閘蟹；指令相關本地進口商把受影響產品下架；停售及發起回收行動；以及通知內地有關當局跟進。

此外，中心已加強監察大閘蟹。其後，中心在零售層面抽取的另一個大閘蟹樣本被檢出二噁英及二噁英樣多氯聯苯總含量亦超出中心所採納的行動水平。根據中心的調查顯示，該早前進口的受影響樣本很可能是來自被暫停大閘蟹輸港的其中一個涉事水產養殖場。

中心會繼續與內地有關當局保持密切聯絡，以確保大閘蟹可供安全食用。

2. 進口活豬受違禁獸藥污染的事故

二零一六年八月初，從兩個內地農場進口的活豬中，部分豬隻的尿液樣本被檢出含獸藥沙丁胺醇殘餘。根據《公眾衛生(動物及禽鳥)(化學物殘餘)規例》(第139N章)及《食物內有害物質規例》(第132AF章)，沙丁胺醇被禁止使用。

鑑於受影響豬隻的屠體不慎流入分銷網絡，故食物及環境衛生署(食環署)採取補救行動，包括發出公告提醒市民、追查分銷情況，以及與相關零售商聯絡。食環署並已通知相關內地當局以採取適當跟進行動。受污染豬隻最終被處理掉。當局並無收到就是次事故導致食物中毒報告。

在汲取是次事故的教訓後，食環署將會實施嚴格管制，以確保零售商出售的所有豬肉及內臟均適宜供人食用。

3. 澳門當局從一個月餅樣本檢測出含黃曲霉毒素的事故

二零一六年九月，中心接到澳門當局通知，指從香港進口的一個月餅樣本被檢出黃曲霉毒素含量超出澳門新採納的法定限值(即十億分之五)。

中心一直在時令食物監察計劃下監察月餅的黃曲霉毒素含量。就中心檢測的樣本，全部的黃曲霉毒素含量均低於十億分之五。有鑑於澳門的報告，中心進一步加強監察月餅的黃曲霉毒素含量。中心從澳門當局報稱涉事的同一品牌月餅抽取了九個樣本進行檢測，發現所有樣本的黃曲霉毒素含量均低於十億分之十五的本港法定限值及十億分之五的澳門法定限值。中心會不時留意國際發展，如認為適當，當會收緊法定限值。

未來路向

在處理食物事故方面，中心不僅設法減輕事故的即時影響，還採取重要的跟進措施(例如加強監察)以防止日後發生類似問題。中心致力維持一套周全的系統，以便適時偵察、處理及檢討食物事故。

(1 November 2016) suspending the import and sale of the hairy crabs from the two aquaculture farms, instructing the local importers concerned to remove the affected products from shelves, stop sale and initiate a recall, and notifying the relevant authorities in the Mainland for follow-up.

In addition, the CFS has stepped up surveillance against hairy crabs. It was later found that the total level of dioxins and dioxin-like PCBs in another sample taken at the retail level also exceeded the CFS's action level and our investigation suggested that the affected sample, imported earlier, was likely from one of the aquaculture farms where the import of hairy crabs to Hong Kong has been suspended.

The CFS will continue to keep close liaison with the relevant authorities in the Mainland to ensure safe supply of hairy crabs.

2. Incident of imported live pigs tainted with prohibited veterinary drug

In early August 2016, some urine samples from live pigs imported from two Mainland farms were found to contain residues of a veterinary drug, salbutamol, which is prohibited under the Public Health (Animals and Birds) (Chemical Residues) Regulation (Cap. 139N) and the Harmful Substances in Food Regulations (Cap. 132AF).

Since the carcasses of the affected pigs have inadvertently found their ways into the distribution network, the Food and Environmental Hygiene Department (FEHD) took remedial actions by issuing a public announcement to alert the public, tracing the distribution and liaising with the retail outlets concerned. Relevant Mainland authorities were informed for appropriate follow-up actions. The tainted pigs were ultimately disposed of. There were no reports of food poisoning arising from this incident.

Learning from this incident, the FEHD will exercise stringent control to ensure all pork and offal sold at retail outlets are fit for human consumption.

3. Incident of a mooncake sample detected with aflatoxins by Macau authorities

In September 2016, the CFS received a notification from Macau authorities that a sample of mooncake imported from Hong Kong was detected with aflatoxins at a level exceeding Macau's newly adopted legal limit (i.e. 5 ppb).

The CFS has all along been monitoring the aflatoxins level in mooncakes under our seasonal surveillance project. For those samples tested, all were below 5 ppb. In view of the Macau's report, the CFS has further enhanced surveillance on mooncake for aflatoxins. Nine samples of the same brand of mooncake reported by the Macau authorities were collected and the aflatoxins levels in all samples were below 15 ppb (i.e. local legal limit), and also below 5 ppb (i.e. Macau's legal limit). The CFS will keep abreast of international developments, and tighten the legal limit if considered appropriate.

Way Forward

In managing food incidents, the CFS not only strives to reduce the immediate impact of the incidents, but also takes important follow-up measures (e.g. enhancing surveillance) to prevent similar problems from occurring in the future. The CFS is committed to maintaining a comprehensive system to detect, manage and review food incidents in a timely manner.

風險傳達 工作一覽 Summary of Risk Communication Work

風險傳達工作一覽 (二零一七年二月) Summary of Risk Communication Work (February 2017)	數目 Number
事故/食物安全個案 Incidents / Food Safety Cases	124
公眾查詢 Public Enquiries	46
業界查詢 Trade Enquiries	170
食物投訴 Food Complaints	528
給業界的快速警報 Rapid Alerts to Trade	2
給消費者的食物警報 Food Alerts to Consumers	3
教育研討會/演講/講座/輔導 Educational Seminars / Lectures / Talks / Counselling	17
上載到食物安全中心網頁的新訊息 New Messages Put on the CFS Website	46



蔬果的除害劑殘餘 (第II部分) : 檢討清洗蔬果的建議

Pesticide Residues in Vegetables and Fruits Part II: Review on the Recommendations on Cleaning of Vegetables and Fruits

食物安全中心
風險評估組
科學主任游天頌先生報告

Reported by Mr. Arthur YAU, Scientific Officer,
Risk Assessment Section,
Centre for Food Safety

我們會在今期討論有關在家清洗蔬菜建議的檢討結果。

消費者着手減少除害劑殘餘的方法

一如上期所述，減少蔬果除害劑殘餘含量的工作已大有進展。然而，在約二十多年前，當被除害劑(主要是甲胺磷)污染的蔬菜引致急性中毒個案頻生時，消費者擔心他們所採取的減低風險措施是否足以把除害劑殘餘減至無害的水平。當時，政府進行了一項研究，探討洗菜、浸泡蔬菜、焯菜及炒菜的效用。結果顯示，用流動的清水徹底沖洗蔬菜數遍，然後用清水浸泡蔬菜一小時或放進沸水焯一分鐘，並把水倒掉，均能有效減少除害劑殘餘。這兩項措施可同時採用以進一步減低殘餘含量。此外，希望進一步減少除害劑攝入量的人，更可去掉蔬菜的外葉。這些建議自九十年代初起已沿用多年。

檢討清洗蔬菜的建議

大肆濫用甲胺磷的年代應已成過去。在過去11年，香港並無除害劑引致食物中毒個案的報告。在二零一四年八月一日至二零一六年，蔬果中的除害劑殘餘的不滿意率低至0.2%；檢測到的除害劑殘餘含量甚低，引致中毒的機會不大。隨着除害劑殘餘問題已經受控，難免讓人心生疑問，懷疑之前的建議在今時今日是否過度，反而導致營養素不必要地流失。聯合國糧食及農業組織認為，由於用水浸泡蔬果會令水溶性營養素流失，故“並不是好的辦法”。因此，食物安全中心(中心)再度就此課題進行研究，並更新其建議。

中心審視多個國際及主要海外權威機構(包括食品法典委員會)在家清洗蔬果的建議。儘管相同的清洗方法對不同的蔬菜與除害劑殘餘組合所產生的效用或不一樣，但多個機構均建議用流動的清水沖洗蔬菜。多項研究報告顯示，就不同的除害劑、農作物與清洗方法組合而言，除害劑殘餘含量可減少的幅度由輕微至最高達90%。有些機構並建議把表層堅硬的農產品去掉外皮或擦洗外皮以減少細菌及除害劑含量，並削去爛掉的部分(見圖)。一些機構特別表明不建議在家清洗蔬菜時使用肥皂、配方洗滌劑或商業農產品清潔劑，擔心這些會成為化學物殘餘的新來源。中心並評審有關清洗蔬果對清除各種除害劑殘餘效用的研究。用水浸泡蔬菜5至20分鐘能減少一些除害劑殘餘，但再浸泡更長時間，效用相對甚微。

In this issue, we discuss the review results on the recommendations on washing of vegetables at home.

Methods to Reduce Pesticide Residues by Consumer Interventions

As mentioned in the last issue, major progress has been made in reducing pesticide residue levels in vegetables and fruits. However, when acute poisoning caused by pesticide (predominantly methamidophos) tainted vegetables was a common place about 20 plus years ago, consumers were concerned whether the risk reduction measures they adopted would be sufficient to reduce pesticide residues to harmless levels. A study to examine the effects of washing, soaking, blanching and stir-frying of vegetables was conducted by the government at that time. The results revealed that washing vegetables well in clean running water for several times, then soak them in water for an hour or blanch them in boiling water for one minute and discard the water could effectively reduce pesticide residues. Both measures could be adopted together for further reduction in residue levels. Furthermore, outer leaves may be removed if concerned individuals would like further reduction in pesticide intake. These advices had been given since the early 1990s.

Review of the Advice in Cleaning Vegetables

The era of blatant methamidophos abuse is probably gone. There are no cases of pesticide food poisoning reported in the past 11 years and the unsatisfactory rate for pesticide residues in vegetables and fruits between 1 August 2014 and 2016 is a low 0.2%, and the levels of pesticide residues detected were so low that they were not likely to cause poisoning. With pesticide residue problem under control, a question emerged and doubted whether the previous advice is excessive in the present days, which results in unnecessary nutrient loss. The Food and Agriculture Organization of the United Nations remarked that soaking of fruits and vegetables "is never a good idea" due to the loss of water soluble nutrients. The Centre for Food Safety (CFS) thus examined the issue again and updated her advice.



用流動的清水沖洗蔬菜和刷洗表層堅硬的果菜均是清洗農產品的有效方法
Rinsing of vegetables and scrubbing of hard fruiting vegetables under running water are effective ways in cleaning produces

An extensive review of recommendations on cleaning of vegetables and fruits at home by international and major overseas authorities including the Codex Alimentarius was carried out. Even though the effect of the same cleaning regime may vary among various vegetable-pesticide residue combinations, many authorities recommend washing of vegetables under clean running water. A range (minimal to up to 90%) of reduction in residue levels had been reported in various studies, with different combinations of pesticides, crop and washing methods. They also recommended peeling and scrubbing of hard produce to reduce bacterial and pesticide load and trimming of damaged parts (see Picture). Some authorities have specifically not recommended the use of soaps, special detergents or commercial produce washes for home use due to the concern of introducing a new source of chemical residues. Studies on the effect of washing on various pesticide residues have also been reviewed. It is noticed that while soaking for 5 to 20 minutes can reduce some pesticide residues, the effect of further soaking would be relatively small.

除了用水浸泡外，中心一直建議焯菜，或在清洗蔬菜時摘掉外葉，以減低除害劑殘餘含量。儘管普遍認為處理食物程序(例如焯煮)能減少除害劑殘餘含量，但由於現時蔬菜中的除害劑殘餘含量甚低，故中心認為再沒有需要以焯菜、清水浸泡及摘掉外葉等方式減少除害劑殘餘。中心的看法與眾多食物安全監管機構所作的建議一致。

經討論收集所得的資料和考慮本地的現況，我們在諮詢食物安全專家委員會後更新有關建議如下：

Other than soaking, the CFS has also been recommending blanching and removal of outer leaves when preparing vegetables for the purpose of reducing pesticide residues levels. With the present level of pesticide residues in vegetables, blanching, soaking and removal of outer leaves are no longer considered necessary for this purpose, even though it is generally understood that food processing steps like cooking can contribute to the reduction. This is in line with the recommendations of many food safety authorities.

With discussion of the information gathered and consideration of the present local situations, advices are now updated after consulting the Expert Committee on Food Safety:

之前的建議 Previous advice	更新建議 Updated advice
用流動的清水徹底沖洗蔬菜數遍。 Wash vegetables well in clean running water for several times.	用流動的清水徹底沖洗蔬菜。 Wash vegetables thoroughly under clean running water.
然後用清水浸泡蔬菜一小時，或放進沸水焯一分鐘，並把水倒掉。 Then soak them in water for one hour or blanch them in boiling water for one minute and discard the water.	如適合，用清潔的刷子刷洗表層堅硬的農產品，以去除表面及縫隙中的污垢和其他物質(包括除害劑和污染物)。 When appropriate, scrub produce with hard surfaces with a clean produce brush to remove dirt and substances including pesticides and contaminants from the surface and the fissures.
這兩項措施可同時採用以進一步減低風險。 Both measures can be adopted together for further risk reduction.	不建議使用肥皂、配方洗滌劑或農產品清潔劑等清洗蔬菜。 Use of soaps, special detergents or produce washes is not recommended.
希望進一步減少除害劑攝入量的人，可去掉蔬菜的外葉或削去外皮。 Concerned individuals, who wish to further reduce their intake of pesticides, may remove the outer leaves or peel the vegetables.	用清水浸泡及焯菜可有效去除污垢和減少除害劑殘餘，但由於在處理過程中會導致營養流失，故不再認為是必要採用的措施。 Soaking in water and blanching are effective in terms of removing dirt and reducing pesticide residues, but they are no longer considered necessary in the face of nutrient loss in the processes.

食物事故點滴
Food Incident Highlight

在家居烹調時減少丙烯酰胺的方法

英國食物標準局推行“甘銜金黃色”(“Go for Gold”)活動，協助人們明白如何在家居烹調時盡量減少攝入丙烯酰胺的可能致癌物質。丙烯酰胺是澱粉類食物在高溫烹調時所形成的化學物。食物安全中心就丙烯酰胺進行了數項研究，發現食物中的丙烯酰胺對健康影響的程度值得關注。市民應設法減少這個物質在膳食中的含量。

籠統而言，不要以太高溫和太長時間烹調食物便能減少丙烯酰胺的含量。消費者以煎炸、烘焙、烤或燒等方式烹調澱粉類食物(例如薯仔、芋頭及麵包)時，應盡量把食物煮至呈金黃色或淺黃色即可。此外，薯仔不宜存放在雪櫃內，因為這會令薯仔在隨後的烹煮過程中增加丙烯酰胺的形成量。雖然消費者無法完全避免從食物攝入丙烯酰胺，但透過健康及均衡飲食，包括進食大量蔬果，可有助降低患癌風險。

Ways to Reduce Acrylamide in Home-cooking

The Food Standards Agency in the United Kingdom has launched a campaign to “Go for Gold”, helping people understand how to minimise exposure to a possible cancer causing agent, acrylamide, when cooking at home. Acrylamide is a chemical formed when starchy foods are cooked at high temperatures. The Centre for Food Safety has conducted several studies on acrylamide and found that acrylamide in food was a public health concern. Efforts should be made to reduce this substance in our diet.

As a rule of thumb, acrylamide can be reduced by not cooking food at a too high temperature for too long. Consumers should aim for a golden yellow colour or lighter when frying, baking, toasting or roasting starchy foods like potato, taro and bread. Furthermore, storing potatoes in fridge is not advisable as it can increase acrylamide formation during subsequent cooking. While it is impractical for consumers to completely avoid acrylamide in food, eating a healthy, balanced diet that includes plenty of fruits and vegetables can help reduce cancer risks.

破解“綁菜膠帶含有甲醛”的傳言

最近，有傳媒報道捆綁新鮮蔬果的黏貼膠帶涉及食物安全問題。一些內地傳媒聲稱，捆綁膠帶上的“致癌毒素”甲醛會滲在蔬菜表面，令蔬菜不適宜食用。

甲醛可存在於自然環境及由人工製成。一些食物(例如椰菜、胡蘿蔔)均天然含有少量甲醛，而黏合劑亦有使用甲醛。甲醛易溶於水，又極易揮發。雖然吸入甲醛會“令人類致癌”，但透過進食而攝取的甲醛則不會致癌。根據現有數據及食物安全中心所進行的風險評估，只要保持均衡飲食，市民無須過份擔心從蔬菜攝入甲醛的問題。

“Formaldehyde on Vegetable Strapping Tape” Rumour Busted

Recently, food safety concerns about the adhesive tape bundling the fresh produce have appeared in the media. Some Mainland media alleged that formaldehyde, a “carcinogenic toxin”, on the strapping tape leached onto the vegetable, causing the produce unfit for consumption.

Formaldehyde may be present in the environment from natural and industrial sources. It occurs naturally in some foods (e.g. cabbage, carrot) in small amounts and has been used in adhesives. It is readily soluble in water and highly volatile. Although formaldehyde is “carcinogenic to humans” via inhalation, it is not carcinogenic upon ingestion. Based on available data and risk assessment conducted by the Centre for Food Safety, there is no cause for undue concern over formaldehyde exposure from vegetables so long as a balanced diet is maintained.