



由食物環境衛生署食物安全中心於每月第三個星期三出版
Published by the Centre for Food Safety, Food and Environmental Hygiene Department on every third Wednesday of the month

本期內容 IN THIS ISSUE

焦點個案

加強針對非洲豬瘟的管制措施

食物安全平台

漫談食物添加劑

食物事故點滴

慎防食源性細菌的抗菌素耐藥性
在娃娃菜中非法使用甲醛

風險傳達工作一覽

Incident in Focus

Control Measures Enhancement
against African Swine Fever

Food Safety Platform

One or Two Things about Food
Additives

Food Incident Highlight

Beware of Antimicrobial Resistance in
Foodborne Bacteria
Illegal Use of Formaldehyde in Baby
Napa Cabbage

Summary of Risk

Communication Work

編輯委員會 EDITORIAL BOARD

總編輯

楊子橋醫生

顧問醫生(社會醫學)(風險評估及傳達)

行政編輯

吳志翔醫生

首席醫生(風險評估及傳達)

委員

梁靜勤醫生 首席醫生(風險管理)

陳詩寧獸醫 高級獸醫(獸醫公共衛生)

張瑞珍女士 高級總監(食物安全中心)

嚴家義先生 高級總監(食物安全中心)

區嘉敏醫生 高級醫生(風險評估)

鍾偉祥博士 高級化驗師(食物研究化驗所)

Editor-in-chief

Dr. Samuel YEUNG

Consultant (Community Medicine)

(Risk Assessment and Communication)

Executive Editor

Dr. Henry NG

Principal Medical Officer

(Risk Assessment and Communication)

Members

Dr. Jackie LEUNG

Principal Medical Officer (Risk Management)

Dr. Allen CHAN

Senior Veterinary Officer

(Veterinary Public Health)

Ms. Syndia CHEUNG

Senior Superintendent (Centre for Food

Safety)

Mr. K Y YIM

Senior Superintendent (Centre for Food

Safety)

Dr. K M AU

Senior Medical Officer (Risk Assessment)

Dr. Stephen CHUNG

Senior Chemist (Food Research Laboratory)

焦點個案

Incident in Focus

加強針對非洲豬瘟的管制措施

Control Measures Enhancement against African Swine Fever

食物安全中心屠房(獸醫)組李芷欣獸醫師及
風險傳達組科學主任葉景新先生報告

Reported by Dr. Samantha Lee, Veterinary Officer,
Slaughterhouse (Veterinary) Section and
Mr. Kenneth Yip, Scientific Officer,
Risk Communication Section, Centre for Food Safety



Disinfection pool for vehicles
進出車輛消毒池



Lairage disinfection
豬欄消毒



Ante-mortem inspection
宰前檢驗



Suspected cases
detained for further
inspection
扣留懷疑個案的豬隻
進行覆檢



圖1:屠房的管制措施

Figure 1. Control measures in slaughterhouse

非洲豬瘟是嚴重的豬隻病毒性疾病,具高度傳染性,但不會感染人類,也無食物安全風險。世界動物衛生組織指出,非洲豬瘟對人類健康並不構成威脅。

然而,非洲豬瘟可在短時間內造成大量豬隻死亡,嚴重影響養豬場。為了保障本港豬場,必須防範非洲豬瘟在本地傳播。為此,漁農自然護理署實施各項防疫措施以減少本地飼養豬隻染上非洲豬瘟的風險,其中包括要求豬農採取妥善的生物安全措施,例如在豬場進行徹底清潔消毒、控制車輛及人員的進出,以及加固鐵絲網等。此外,由二零一九年一月起,豬農不得使用廚餘餵豬隻,以降低豬隻從受污染的飼料感染非洲豬瘟的風險。

為了向市場供應新鮮的豬肉,來自本地不同豬場及從中國內地進口的豬隻均在本港屠房屠宰。當局分別於二零一九年五月十日及三十一日在上水屠房驗出有豬隻樣本對非洲豬瘟病毒測試呈陽性反應。在這兩次事件中,上水屠房內豬隻全數銷毀,屠房亦暫停運作以進行徹底清潔消毒。當局已實施管制措施,以防止非洲豬瘟病毒由屠房傳入本港豬場,影響本地豬隻。為了進一步減低本地活豬染上非洲豬瘟的風險,當局已加強管制措施。

進口豬隻送往屠房前進行動物疾病監察

要防範非洲豬瘟,做好源頭監控至為重要。所有

African Swine Fever (ASF) is a severe, highly contagious, viral disease affecting pigs, but it does not infect humans and poses no food safety risk. According to [World Organisation for Animal Health \(OIE\)](http://www.woah.org/), ASF is not a human health threat.

However, ASF can cause mass amount of pig kill within a short period of time, severely impacting on pig rearing farms. Prevention of spreading of ASF in Hong Kong can protect local pig farms.

To this end, the Agriculture, Fisheries and Conservation Department (AFCD) implements various preventive measures to minimise the risk of locally reared pigs from infecting ASF. Among others, local pig farmers are required to maintain proper biosecurity including strictly conducting cleansing and disinfection of the farm, controlling the access of vehicles and personnel to farms, and strengthening boundary fencing, etc. Furthermore, the feeding of swill has been prohibited since January 2019 to minimise the risk of contracting ASF through contaminated feed.

Pigs from different local farms and imported from Mainland China are slaughtered in slaughterhouses in Hong Kong for supplying fresh pork to the market. Pig samples collected in Sheung Shui Slaughterhouse (SSSH) were tested positive for ASF virus separately on 10 and 31 May 2019. All the pigs in SSSH were culled and the operation of SSSH was suspended for thorough cleansing and disinfection on the two occasions. Control measures are put in place to prevent the ASF virus from spreading from slaughterhouses to local pig farms and affecting local pigs. With a view to further minimising the risk of ASF infection in local live pigs, control measures have been strengthened

Animal Disease Monitoring for Imported Pigs before Delivery to Slaughterhouse

To prevent ASF, control and surveillance at source are of utmost importance. All pigs delivered to slaughterhouses must come from registered pig farms supplying Hong Kong. Pigs have to be segregated to ensure that they are free of ASF before releasing from the farms.

焦點個案
Incident in Focus

送往屠房的豬隻都必須來自註冊供港豬場，並先隔離以確保沒有出現非洲豬瘟病徵，才會放行。

豬隻在運送途中經過各檢查站時，直至進出位於深圳清水河的豬隻中轉倉，均會接受監察和檢驗。過程中如發現有豬隻出現異樣，均不會送往香港。此外，所有豬隻均須附有內地海關簽發的有效衛生證明書。

清潔行動及食用動物檢驗

屠房已加強清潔消毒工作，以降低非洲豬瘟病毒經運輸傳播的風險。上水屠房在出入口附近增設了消毒池，以便進出屠房的運豬車消毒車輪。運豬車在進入屠房後，須在監督下進行徹底清潔消毒，方可離開。

由二零一九年六月初起，屠房亦實施了俗稱「日日清」的措施，所有運到屠房的活豬會在24小時內屠宰。屠房內不同位置的豬欄每日均會清空，以進行徹底清潔消毒。透過限制豬隻在屠房的逗留時間，以及有效清潔消毒，可減少豬隻在屠房染上非洲豬瘟的風險。非洲豬瘟專家認為這是極佳的措施，可大為減低屠房內形成病毒感染循環的可能性。

在生產線中進行肉類檢驗

每頭屠宰的豬隻都會進行徹底檢驗，屠體及內臟均會加以檢查是否有病斑等異常情況。懷疑患病的豬隻須扣留以作詳細覆檢，才可放行。受感染的屠體或內臟會被銷毀，以防供人食用。

再加考慮所需採取的措施

非洲豬瘟並非人畜共患的疾病，不會感染人類，也不構成食物安全風險。在屠房實施「日日清」及加強清潔消毒的額外措施，已大大降低出現非洲豬瘟感染及病毒由屠房傳入本地豬場的風險。一些專家指出，日後可能無可避免再在屠房發現非洲豬瘟病毒。世界動物衛生組織非洲豬瘟常設專家小組最近在會議上得出結論，雖然銷毀豬隻及限制其進出被視為抑制非洲豬瘟爆發的有效方法，但亦應進一步研究其他減少病毒載量的風險管理方案。基於這些考慮因素，日後如發現非洲豬瘟病毒，可能要再考慮屠房所應採取的措施，例如是否有需要大量銷毀豬隻。

注意事項

1. 非洲豬瘟並非人畜共患的疾病，不會構成食物安全問題。
2. 當局已加強管制措施，以減少屠房內傳播非洲豬瘟病毒的機會，並防止病毒由屠房傳入本地豬場。
3. 所有豬隻必須在屠房通過嚴格的宰前及宰後檢驗，以確保適宜供人食用。

給市民的建議

- 如無官方衛生證明書，切勿攜帶野味、肉類、家禽或蛋類入境。
- 豬肉須徹底煮熟才可食用，以降低食源性病原體造成的任何風險。
- 向可靠的持牌食肆購買肉類。

給業界的建議

- 從准許來源地入口肉類。
- 每日徹底清潔消毒運肉車。
- 肉類須徹底煮熟才奉客。

Monitoring and inspection will be conducted at all checkpoints during transportation as well as in and out of the pig transfer house located at Qingshuihe in Shenzhen. Pigs showing abnormality at any stage will not be supplied to Hong Kong. In addition, all pigs should be accompanied with valid health certificates issued by the Mainland Customs.

Cleansing Operations and Food Animal Inspection

Cleansing and disinfection work has been strengthened in the slaughterhouses in order to minimize the risk of spreading of virus via transportation. Disinfection pools have been installed near the entrance gate to facilitate disinfection of wheels for pig-conveying trucks entering and leaving SSSH. Once entered the slaughterhouse, live pig-conveying trucks are thoroughly cleansed and disinfected under supervision before they are allowed to leave.

With the implementation of "Daily Clearance" since early June 2019, all live pig admitted to the slaughterhouse will be slaughtered within 24 hours. Lairages at different areas of the slaughterhouse will be cleared and undergo thorough cleansing and disinfection every day. By limiting the period of stay for pigs in the slaughterhouses followed by effective cleansing and disinfection, the risk of ASF infection among pigs inside the slaughterhouses can be minimized. Experts on ASF agreed that it is an excellent measure for reducing the likelihood of cycles of viral infection becoming established in the slaughterhouse.

Meat Inspection in the Production Line

Every pig slaughtered is thoroughly inspected. Both pig offal and carcass are inspected to check for abnormalities such as the presence of disease lesions. Suspected pigs will be detained for detailed inspections before release. Any diseased carcass or offal will be condemned to prevent from human consumption.

A Case to Re-consider our Actions

ASF is a non-zoonotic disease that does not infect humans and poses no food safety risk. The additional measures of daily clearance together with strengthened cleansing and disinfection implemented in slaughterhouses have substantially reduced the risk of ASF infection and the virus from being carried from slaughterhouses to local farms. According to some experts, future detection of ASF virus in slaughterhouses may be inevitable. In recent OIE Standing Group of Expert on ASF meeting, it has been concluded that, despite culling and movement restrictions are recognised as an effective way to control disease outbreaks, other risk management solutions to reduce the viral load should also be further explored. Given these considerations, there may be a case to re-consider the actions to be taken in slaughterhouses such as the need for mass culling should ASF virus be detected there in future.

Key Points to Note

1. ASF is not a zoonotic disease and has no food safety concern;
2. Control measures have been strengthened to minimise the spreading of ASF virus in slaughterhouses and prevent the getting of the virus from slaughterhouses to local farms; and
3. All pigs must undergo stringent ante-mortem and post-mortem inspections in slaughterhouses to ensure that they are fit for human consumption.

Advice to the Public

- Do not bring any game, meat, poultry or eggs into Hong Kong without official health certificates.
- Pork should be thoroughly cooked before consumption to reduce any risk caused by foodborne pathogens.
- Purchase meat from reliable and licensed food premises.

Advice to the Trade

- Obtain meat from approved sources.
- Conduct thorough cleansing and disinfection of the meat delivery vehicles daily.
- Cook meat thoroughly before serving.

漫談食物添加劑

One or Two Things about Food Additives

食物安全中心風險評估組
科學主任黃詩雯女士報告

Reported by Ms. Sosanna WONG, Scientific Officer,
Risk Assessment Section, Centre for Food Safety

當我們在超級市場選購食物時，大部分在貨架上的食品，特別是預先包裝食品，都含有食物添加劑。在煮食油專區售賣的植物油中，可以找到防止植物油產生油溢味的抗氧化劑。在烘焙食品專區的麵包，添加了抑制霉菌及細菌生長的防腐劑，否則麵包便會較易變壞。在穀類產品專區的一些早餐穀類食品，則使用了甜味劑來代替糖，以降低卡路里。食物添加劑已經使用了好幾個世紀，至今在食物供應中發揮愈趨重要的作用。食物添加劑不僅可以改善食品的味道、口感和質素，還能提高食品的安全性和延長保質期，從而預防食源性疾病。

When we do grocery shopping in a supermarket, most food products on the shelves, in particular prepackaged foods, contain food additive. In the cooking oil aisle, antioxidants can be found in vegetable oils to prevent them from going rancid. In the baked goods aisle, preservatives are added to bread to prevent mould and bacterial growth that would otherwise cause it to go mouldy easily. In the cereal aisle, sweeteners are used in some breakfast cereals as an alternative to sugar to lower the calories. Food additives have been used for centuries and play an increasingly important role in today's food supply. Not only do they enhance the taste, texture or other qualities, they also improve the safety and extend the shelf-life of food products so as to prevent foodborne illness.



圖2: 食物添加劑的各種標示方式
Figure 2. Different labelling formats of food additives

雖然食物添加劑已廣泛應用多時，但仍不時有人關注其安全性。在本文中，讓我們看看在食品生產中如何安全使用食物添加劑。

食物添加劑是什麼？

食物添加劑是指添加在食物中，以保持或提升其安全性、新鮮度、味道、質感或外觀等天然或人造物質。食物添加劑按其科技上的作用分為不同作用類別，例如抗氧化劑、防腐劑、色素、甜味劑、酸度調節劑及乳化劑等。

食物添加劑可安全食用嗎？

食物添加劑必須通過嚴格的安全評估，才會獲評定為可安全使用於食物中。國際及國家食物安全當局，例如聯合國糧食及農業組織/世界衛生組織食品添加劑聯合專家委員會，根據所有可得的毒理及相關資料進行科學審查，來評估食物添加劑的安全性。任何安全性存疑的食物添加劑，不會准予使用。此外，如有新的科學資料顯示某種食物添加劑不再安全，使用批准便會予以撤銷。不同國家各有其食物法例來規管食物添加劑的使用。

香港如何規管食物添加劑？

在香港，有規例訂明食物中准予含有的食物添加劑標準，例如抗氧化劑、防腐劑、色素及甜味劑。至於規例中未有訂明標準的食物添加劑，食物業界應確保食物添加劑的使用應奉行優良製造規範，所添加的分量只限於在食物中達到預期技術效用所需的最低分量，以及所製作食物適宜供人食用。如有需要，食物安全中心將會就食物樣本中驗出的食物添加劑含量進行風險評估。

Despite the long-time and widespread application of food additives, there have been concern about their safety from time to time. In this article, let's look into their safety issues when use in food production.

What are Food Additives?

Food additives are substances, either natural or synthetic, added to food to maintain or improve the safety, freshness, taste, texture, appearance, etc., of food. Based on their technological function, food additives are classified into different functional classes such as antioxidant, preservative, colour, sweetener, acidity regulator, emulsifier, and etc.

Are Food Additives Safe for Consumption?

Before a food additive is ascertained as safe for food use, it has to go through rigorous safety assessment. International and national food safety authorities, such as the Joint FAO / WHO Expert Committee on Food Additives (JECFA), evaluate the safety of food additives based on scientific reviews of all available toxicological and related data. If a food additive is not safe for food use, approval is not given. Moreover, if new scientific information is available suggesting that a food additive is no longer safe, the approval to use the food additive would be withdrawn. Different countries have their own food laws to regulate the use of food additives.

How are Food Additives Regulated in Hong Kong?

In Hong Kong, there are regulations which spell out the standards for specific food additives allowed in food such as antioxidant, preservative, colour, and sweetener. For food additives with no specified standards in the regulations, food traders should ensure that food additives should be used under the principle of Good Manufacturing Practice in which only the minimum amount is added to achieve the desired technological effect, and that the food is fit for human consumption. If necessary, the Centre for Food Safety would conduct risk assessment on the detected level of food additives in a food sample.

如何作出知情選擇？

由於市面上供應的食物普遍含有食物添加劑，你也許想知道在你所吃的食物中添加了哪種食物添加劑。根據《食物及藥物(成分組合及標籤)規例》(第132W章)，在本港出售的預先包裝食品如使用了食物添加劑，必須在食物標籤上的配料表中列明其作用類別及其本身所用名稱或識別編號。以添加在預先包裝食品中作為甜味劑的天冬酰胺為例，必須列明為甜味劑(天冬酰胺)、甜味劑(E951)或甜味劑(951)。有關關注的消費者可參閱食物標籤，以作出知情的選擇。

How to Make an Informed Choice?

Since food additives are commonly present in our food supply, you may wonder what kind of food additives are added to the foods you eat. According to the Food and Drugs (Composition and Labelling) Regulations (Cap. 132W), if a food additive is used in a prepackaged food available in Hong Kong, it must be listed by its functional class together with its specific name or identification number in the ingredient list on the food label. For example, if aspartame is added to a prepackaged food as a sweetener, it must be listed as sweetener (aspartame), sweetener (E951), or sweetener (951). Concerned consumers can make reference to the food label to make an informed choice.

食物事故點滴

Food Incident Highlight

食物中出現抗藥性細菌，可能是畜牧場誤用抗生素所致。食物配製過程不當可以導致抗藥性細菌傳播。例如，不良的衛生處理手法可以造成交叉感染。進食生或未煮熟而含有抗藥性細菌的食物可能會令消費者受到感染。雖然有些抗藥性細菌可以引致食物中毒，但有些情況感染抗藥性細菌可以是沒有任何不適的徵狀，有些人亦可能不會出現病徵。

食物中的抗藥性細菌可帶來風險，不容忽視。業界應遵從食物安全五要點，食物處理者應嚴格注意衛生，把食物徹底煮熟。業界亦可在服務地點增設警示提醒消費者，例如在菜單或標語牌上註明：「進食生或未煮熟的食物，可能會增加患上食源性疾病的風險，尤其是孕婦、幼童、長者及免疫力弱人士。」

消費者，尤其是上述的高危人士，不宜生吃或進食未經煮熟的食物。

The presence of antimicrobial resistant (AMR) bacteria in food can be caused by the misuse of antibiotics in animal farms. Improper food preparation processes can contribute to the spread of AMR bacteria. For example, poor hygienic practices can cause cross-contamination while consuming raw or undercooked food that contain AMR bacteria may cause the consumer acquiring the AMR bacteria. Infection with AMR bacteria can be asymptomatic and the person may not exhibit any signs or symptoms of disease, although some AMR bacteria can cause food poisoning.

The risk of AMR bacteria in food should not be overlooked. The trade is advised to follow the Five Keys to Food Safety. Food handlers should observe strict hygiene practice and food should be cooked thoroughly. The trade can also remind consumers by adding advisory such as 'Consuming raw or undercooked foods may increase the risk of food-borne illness, especially for pregnant women, young children, the elderly and people with weakened immunity' on menus or placards of service locations.

Consumers, especially high risk groups as mentioned above are advised not to consume raw or undercooked food.

慎防食源性細菌的抗菌素耐藥性

Beware of Antimicrobial Resistance in Foodborne Bacteria

在娃娃菜中非法使用甲醛

Illegal Use of Formaldehyde in Baby Napa Cabbage

近日有傳媒報道，內地一些娃娃菜被發現含有甲醛，據稱是用以在運送途中保持娃娃菜新鮮。

甲醛是一種化學物，主要作工業用途。水果、蔬菜、肉類、海魚及甲殼類動物等食物，天然含有少量甲醛。然而，甲醛並非法例准許的食物添加劑。

業界應注意，在食物中使用防腐劑必須符合《食物內防腐劑規例》(第132BD章)的規定。過去一年，食物安全中心抽取了包括蔬菜在內的150個樣本進行甲醛檢測，結果全部合格。一般來說，消費者宜用流動的清水徹底沖洗蔬菜。

Recently, media reported that some baby napa cabbages were found to contain formaldehyde in mainland China. It was alleged that formaldehyde was used to keep the cabbage fresh in transit.

Formaldehyde is a chemical mainly for industrial use. Formaldehyde can be naturally present in food including fruits, vegetables, meats, marine fish and crustacean in small amount. However, formaldehyde is not a permitted food additive.

The trade is reminded that the use of preservatives in food must comply with the Preservatives in Food Regulation (Cap 132BD). Over the last year, the Centre for Food Safety has taken 150 samples including vegetables to test for formaldehyde, and all results were found satisfactory. As a general advice, consumers are advised to rinse vegetables thoroughly under clean running water.

風險傳達工作一覽 (二零一九年七月)

Summary of Risk Communication Work (July 2019)



事故/食物安全個案
Incidents/ Food Safety Cases:
201

公眾查詢
Public Enquiries:
66

業界查詢
Trade Enquiries:
165

食物投訴
Food Complaints:
452

給業界的快速警報
Rapid Alerts to Trade:
7

給消費者的食物警報
Food Alerts to Consumers:
0

教育研討會/演講/講座/輔導
Educational Seminars/ Lectures/
Talks/ Counselling:
56

上傳到食物安全中心網頁的新訊息
New Messages Put on the
CFS Website:
49