

Updated advice on washing vegetables  
to reduce potential risk of pesticide  
residue in household setting

就家居環境中降低除害劑殘餘的潛  
在風險作出的清洗蔬菜更新建議

7<sup>th</sup> July, 2017

2017年7月7日

# Background

## 背景

- Back in late 1987, a large number of food poisoning outbreaks due to consumption of imported vegetables began to surface, peaking at 1988 with 303 confirmed cases and affected 491 persons. The outbreaks dropped off in 1989 and 1990 but resurfaced in lesser extent from 1991 to 1995.
- 早於一九八七年年底，香港開始出現多次因食用進口蔬菜而引致食物中毒的事故，並在一九八八年達到高峰期，共有**303**宗確診個案，**491**人受影響。雖然情況在一九八九及一九九零年期間趨於穩定，但在一九九一至一九九五年期間曾再度出現規模較小的食物中毒事故。

## Background (2)

### 背景 (2)

- Outbreaks before 1996 were mainly caused by methamidophos, where levels up to 200 mg/kg were found.
- Control measures were introduced with close liaison with the Mainland authorities. The Man Kam To Food Control Point had also played an indispensable role in screening imports.
- 一九九六年前發生的有關食物中毒事故主要是由除害劑甲胺磷所引致。涉事蔬菜的甲胺磷水平可高達每公斤二百毫克。
- 本港與內地當局緊密聯繫，並採取了多項管制措施，情況逐漸受控。設立文錦渡食品管制處，對篩選進口的蔬菜，亦發揮了不可或缺的作用。

# Background (3)

## 背景 (3)

- Centre for Health Protection (CHP) did not identify any confirmed cases of food poisoning caused by pesticide residues in the past 11 years.
- 在過去十一年，衛生防護中心並無發現任何由除害劑殘餘所引致的食物中毒確診個案。

# Background (4)

## 背景 (4)

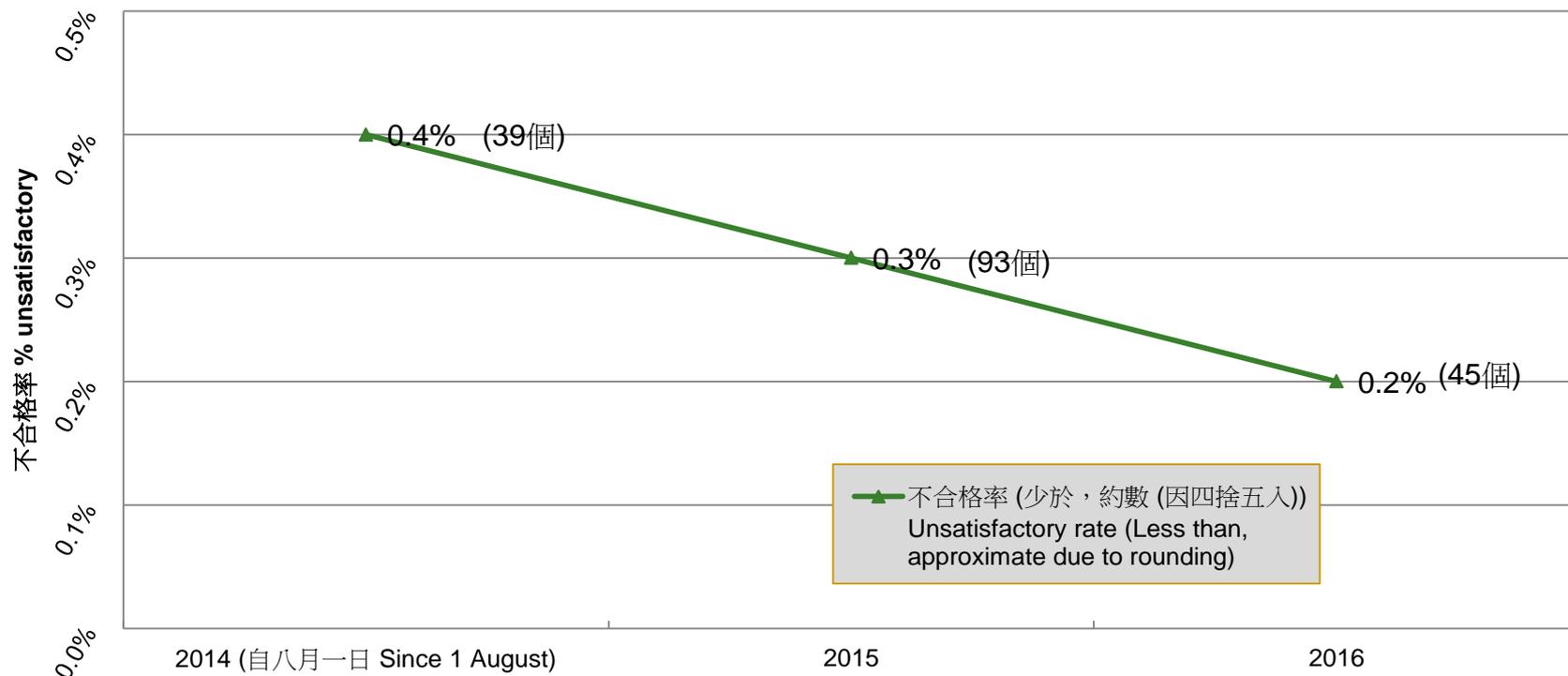
- With the enactment of the Pesticide Residues in Food Regulation on 1 August 2014, control was further strengthened. Between 1 August 2014 and 2016, the CFS took about 91,700 food samples for testing of pesticide residues, and overall only 0.2 % was found not complying with legal requirement.
- 此外，隨着《食物內除害劑殘餘規例》於二零一四年八月一日實施，當局進一步加強管制。在二零一四年八月一日至二零一六年期間，中心抽取約**91,700**個食物樣本以進行除害劑殘餘檢測，整體只有**0.2%**含量超過法定限量。

# Background (5)

## 背景 (5)

**Unsatisfactory rate and number of fruits and vegetable samples collected for pesticide residue analysis from 1 August 2014 to 2016.**

在二零一四年八月一日至二零一六年期間，抽取作除害劑殘餘分析的蔬果樣本不合格率及樣本數目。



# Background (6)

## 背景 (6)

- The First HK Total Diet Study (TDS) found that the dietary exposure of consumers to more than 100 varieties of pesticides was much lower than the safety reference values. Of the pesticides studied, it is very unlikely that the population of Hong Kong will be exposed to excessive amount of pesticide residues through diet.
- 香港首個總膳食研究，涵蓋逾100種除害劑。研究發現市民從膳食中攝入除害劑分量，遠低過適用於消費者的安全參考值。就研究涉及的除害劑而言，香港市民不大可能透過膳食攝入過量的除害劑殘餘。

# Review on the advice on washing vegetables

## 檢討有關清洗蔬菜的建議

- Exposure to pesticide residues is no longer an imminent risk.
- The CFS had been reviewing the advice on washing vegetables that was introduced some two decades ago when food poisoning caused by pesticide tainted vegetables was common.
- 攝入除害劑殘餘不再有迫切的風險。
- 中心二十多年前提供的洗菜建議，是基於大量出現高劑量除害劑污染的蔬菜引致食物中毒的情況所定立。中心已檢討有關建議。

# The Review

## 檢討

- Extended soaking of vegetables in water will lead to unnecessary loss of water soluble nutrients.
- Extensive review of recommendations on cleaning of vegetables under general household setting by major international/national authorities and also relevant research papers.
- 長時間用水浸泡蔬菜，會令水溶性營養素不必要地流失。
- 中心審視主要國際及海外權威機構在一般家居環境清洗蔬果的建議，及相關的研究。

# Recommendations by international / national authorities (1)

## 國際及海外的建議 (1)

- Many authorities recommend washing of vegetables under clean running water, although the effect of the same cleaning regime may vary among different vegetable-pesticide residue combinations.
- 雖然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，多個機構均建議用流動的清水沖洗蔬菜。

# Recommendations by international / national authorities (2) 國際及海外的建議 (2)

- Some authorities recommend peeling and scrubbing of hard produce for purpose of reducing bacterial and pesticide load and trimming of damaged parts.
- Some authorities have specifically recommended against 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 .
- 部分機構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。
- 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。

# Recommendations by international / national authorities (3) 國際及海外的建議 (3)

- 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.*
- 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。

# Recommendations by international / national authorities (4) 國際及海外的建議 (4)

- In the past, CFS has 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 current recommendations of many food safety authorities.
- 中心以往一直建議焯菜，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（例如烹煮）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一般甚低，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。中心的最新看法與眾多食物安全監管機構現時所作的建議一致。

# Updated advice

## 更新建議

之前的建議	更新建議
用流動的清水徹底沖洗蔬菜數遍。	用流動的清水徹底沖洗蔬菜。
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。	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）。
這兩項措施可同時採用以進一步減低風險。	不建議使用肥皂、配方洗滌劑或農產品清潔劑等清洗蔬菜。
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。	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素流失，故不再認為是必要採用的措施。

# Updated advice

## 更新建議

Previous advice	<u>Updated advice</u>
Wash vegetables well in clean running water for several times.	Wash vegetables thoroughly under clean running water.
Then soak them in water for one hour or blanch them in boiling water for one minute and discard the water.	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.
Both measures can be adopted together for further risk reduction.	Use of soaps, special detergents or produce washes is not recommended.
Concerned individuals, who wish to further reduce their intake of pesticides, may remove the outer leaves or peel the vegetables.	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.

The Centre for Food Safety, as regulatory agency, can offer advice on the general principle only and would not offer comment on individual food product. If in doubt, you may consider seeking advice from your legal adviser or food specialist to ensure compliance with the laws in Hong Kong SAR.

請注意，食物安全中心作為食物安全監管機構，只會提供一般指引，而不會就個別產品給予意見。如有需要，請諮詢你的法律顧問或食物學的專家，以確保符合香港有關法例。

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Thank you  
謝謝

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