

For discussion
on 12 June 2012

Legislative Council Panel on Food Safety and Environmental Hygiene

Regulation of Pesticide Residues in Food

Purpose

This paper seeks Members' views on measures regulating pesticide residues in food in Hong Kong.

Background

2. The Government has always been concerned about the possible health effects of pesticide residues in food on the public. The Centre for Food Safety (CFS) adopts the strategy of "from farm to table" to enhance food safety and to safeguard public health by ensuring that food consumed by the public meets safety standards. This covers four aspects of work including proper control at source, rigorous implementation of the Food Surveillance Programme, enhancing the relevant legislation as well as publicity and education. Details of the measures regulating pesticide residues in food are set out in paragraphs 3 to 21 below.

Control at source

3. As the Mainland is a major supplier of food to Hong Kong, we have maintained close liaison with the State General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and the respective entry-exit inspection and quarantine bureaux. Under our administrative arrangement with AQSIQ, all vegetables imported from the Mainland must come from registered vegetable farms. Every year, officers of CFS inspect

registered farms on the Mainland to ensure that the agricultural products supplied to Hong Kong are wholesome and safe at source. The scope of inspections covers –

- (a) crop production;
- (b) the application and storage of pesticides and fertilizers;
- (c) the environment of vegetable farms;
- (d) field management;
- (e) water supplies and quality of soil; and
- (f) testing of produce and management of farms.

4. In addition, the Agriculture, Fisheries and Conservation Department (AFCD) and the Vegetable Marketing Organization (VMO) have jointly run the Accredited Farm Scheme (the Scheme). The Scheme aims at promoting the adoption of good horticultural practice and environmentally friendly production, encouraging the adoption of integrated pest management and the proper and safe use of pesticides, as well as safeguarding public health through regular inspections of the farms to ensure production of quality vegetables that are safe for consumption. As at end-May 2012, 259 local farms and 37 farms on the Mainland have been accredited under the Scheme.

5. For the accredited farms in Hong Kong, AFCD provides guidance and supervision on the safe use of pesticides for participating local farmers, and publishes and distributes the codes of practice on “*Good Agricultural Practices for Crop Production*” to encourage local farmers to reduce the use of pesticides and produce vegetables and fruits in a sustainable manner.

6. Regarding accredited farms on the Mainland, VMO and the Federation of Vegetable Marketing Co-operative Societies Limited (FVMCS), with the technical support from AFCD, inspect all accredited farms on the Mainland regularly every year. Inspection items include horticultural practice of farms as well as records of storage and usage of pesticides. Inspectors will also disseminate information on the safe use of pesticides to the farms, offer advice to them on the use of pesticides and collect vegetable samples for testing of pesticide residues. In addition, VMO regularly commissions independent auditors to review the performance of the farms concerned.

Food Surveillance Programme

7. Apart from proper control at source, the Food Surveillance Programme is also a key in ensuring food safety at the downstream stages of the food supply chain. The risk-based Food Surveillance Programme carried out by CFS each year is drawn up after being scrutinised by the Expert Committee on Food Safety and having regard to the views of experts and stakeholders. CFS will adjust the scope and intensity of food surveillance in a timely manner taking into account test results, food incidents around the world, the development and information of the Mainland agricultural, etc. Each year, CFS takes food samples at the import, wholesale and retail levels for testing. The scope of testing covers pesticides, metallic contaminants, colouring matters, preservatives, radiation levels, etc.

8. Regarding the standards adopted for testing of pesticide residues, CFS currently takes reference from the maximum residue limits (MRLs) and extraneous maximum residue limits (EMRLs) for pesticides established by the Codex Alimentarius Commission (“Codex”)¹. The types of pesticides commonly tested by CFS under the Food Surveillance Programme include organophosphorus pesticides, organochlorine pesticides, pyrethroids, carbamates, etc. As regards accredited farms on the Mainland, vegetable samples collected from these farms by VMO and FVMCS would be sent to VMO for testing of the same types of pesticides as those under the Food Surveillance Programme.

9. For non-compliant foods, CFS would take effective risk management actions, such as issuing warning letters, tracing the source and distribution, requiring the traders concerned to stop selling, recalling and disposing of the problem foods, as well as initiating prosecutions. In 2011, 21 700 samples of vegetables and fruits were tested by CFS, with a

¹ Codex defines MRL as the maximum concentration of a pesticide residue recommended by Codex to be legally permitted in or on food and agricultural commodities. On the other hand, EMRL concerns a pesticide residue or a contaminant arising from environmental sources (including former agricultural uses) other than the use of a pesticide or contaminant substance directly or indirectly on the commodity. It is the maximum concentration of a pesticide residue or contaminant that is recommended by Codex to be legally permitted or recognised as acceptable in or on food and agricultural commodities.

satisfaction rate of over 99%. As two samples imported from the Mainland were found unsatisfactory, CFS contacted the Mainland authority concerned for follow-up actions. Subsequently, a farm involved was removed from the list of registered vegetable farms for exportation to Hong Kong.

Enhancing the relevant legislation

10. At present, while there are general provisions under the Public Health and Municipal Services Ordinance (Cap. 132) which stipulate that all food on sale for human consumption must be wholesome, unadulterated and fit for human consumption, there is no specific legal provision that regulates the level of pesticide residues in food.

11. To further protect public health, enhance effective regulatory control on pesticide residues in food and promote harmonisation between local and international standards, the Government has made the Pesticide Residues in Food Regulation (“the Regulation”). The Regulation was tabled at the Legislative Council (“LegCo”) on 9 May 2012. Subject to vetting procedures of LegCo, the Regulation will commence on 1 August 2014 after a grace period of two years.

12. The key point of the Regulation is the specification in its Schedule 1 a list of MRLs / EMRLs for certain pesticide-food pairs, i.e. the maximum concentration of specified pesticide residues permitted in specific food commodities. According to the Regulation, the levels of these pesticide residues present in food shall not exceed the MRLs/EMRLs. The formulation of Schedule 1 of the Regulation is based primarily on the available standards recommended by Codex, supplemented by standards of the Mainland and other major food exporting countries to Hong Kong (the United States and Thailand), while taking into consideration comments received during the public consultation period. CFS has further scrutinised these standards by conducting risk assessment based on local food consumption patterns to ensure that they are adequate to protect public health in Hong Kong.

13. Setting standards for pesticide residue limits can encourage farmers from local farms and registered vegetable farms for exportation to

Hong Kong on the Mainland to observe good agricultural practices. When applying a pesticide, they must strictly observe the instructions printed on its label, including the authorised type of food commodities to which the pesticide could be applied, the recommended application frequencies and amount, as well as the duration required between the last application of the pesticide and harvest, etc. The amount of the pesticide applied should also be limited to the lowest possible level necessary to achieve its desired effect (i.e. for preventing, destroying, repelling or mitigating pests) while ensuring the pesticide residue in food is reduced to the lowest level. At the same time, the prescription of pesticide residue limits would encourage members of the trade to choose reputable suppliers who can provide documentary proof showing the food is in compliance with the Regulation. As new pesticides and new applications on crops keep emerging, the Director of Food and Environmental Hygiene (DFEH) will update the Schedules of the Regulation regularly.

14. The principle of the Regulation is that, other than exempted pesticides, food containing pesticide residues with no MRL or EMRL specified in Schedule 1 may be imported or sold only if consumption of the food is not dangerous or prejudicial to health. DFEH will conduct risk assessment to ascertain whether the consumption of the food in question is dangerous or prejudicial to health.

15. In order to facilitate the trade's use of natural pesticides, the residues of which are identical to or indistinguishable from natural food components, Schedule 2 of the Regulation specifies a list of exempted pesticides. DFEH will take into consideration relevant factors below in determining the inclusion of a pesticide into Schedule 2 –

- (a) whether the use of the pesticide will result in residues occurring in food;
- (b) whether the residues of the pesticide are identical to or indistinguishable from natural food components; and
- (c) whether the residues of the pesticide are of toxicological significance, or if consumption of food containing residues of the pesticide would be dangerous or prejudicial to health.

16. Although such a list of exempted pesticides is not available from Codex, we have made reference to the lists adopted by major food exporting countries to Hong Kong in drawing up our own.

17. Regarding penalty provisions, the Regulation states that it would be an offence to import, manufacture or sell for human consumption any food which contains any pesticide residues unless —

- (a) the food and the pesticide residues concerned are specified in Schedule 1 to the Regulation and the amount of the residues does not exceed the limit specified in the Schedule;
- (b) section 5 or 6 of the Regulation applies to the food and the amount of the residues does not exceed the MRL or EMRL applicable to the food;
- (c) the pesticide residues concerned are residues of an exempted pesticide set out in Schedule 2 to the Regulation; or
- (d) the consumption of the food concerned is not dangerous or prejudicial to health.

The maximum penalty for committing the offence will be a fine at level 5 (\$50,000) and imprisonment for 6 months. This is in line with the penalty for selling food which is unfit for human consumption under section 54 of Cap. 132.

18. Statutory defences are available for the offence referred to in paragraph 17 above. At present, section 71 of Cap. 132 stipulates conditions under which warranty may be pleaded by the defendant as defence in any proceedings for an offence under the relevant part of the Ordinance. This would also be applicable to the offences under the Regulation. For example, a vendor charged under the Regulation may produce evidence such as invoices to demonstrate that the food concerned is in the original state as obtained from the supplier without any further treatment and the supplier's earlier confirmation that the food supplied is safe.

19. In addition, section 70 of Cap. 132 provides that if the defendant could prove that the contravention was due to the act or default of some other person, and that he has exercised all due diligence to secure that the provisions in question were complied with, he may plead this as a defence. Again, this is applicable to offences under the Regulation.

Publicity and Education

20. To allow sufficient time for the trade to comply with the Regulation, there will be a grace period of about two years prior to the commencement of the Regulation. We expect that the trade would need time for preparatory work. Food importers and retailers would have to liaise with their suppliers to understand whether the foods concerned comply with the requirements of the Regulation and to obtain the relevant information. If necessary, the importers and retailers may have to switch to other suppliers in order to meet the requirements of the Regulation. At the same time, private laboratories would, having regard to their needs and circumstances including equipment and resources available, devise appropriate methods for testing pesticides residues specified in the Regulation. During the grace period, CFS will provide briefings, training and guidelines for different sectors to prepare them for the commencement of the Regulation.

21. CFS has been organising health talks and roving exhibitions to enhance public understanding about the rationale of the use of pesticides in agricultural practices and ways to minimise the negative impacts of pesticides. The public is also reminded to maintain a balanced diet so as to avoid excessive exposure to specific hazards (including chemical ones). For good hygiene, fruits and vegetables should be thoroughly cleansed before consumption. The Government also makes available educational materials through CFS' website, the 24-hour telephone hotline (2868 0000) and other channels (such as the quarterly publication *Food Safety Bulletin*). We will continue food safety promotion work in this area.

Advice Sought

22. Members are invited to note the contents of the paper and provide comments.

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