Refined Regulatory Framework for Pesticide Residues in Food in Hong Kong

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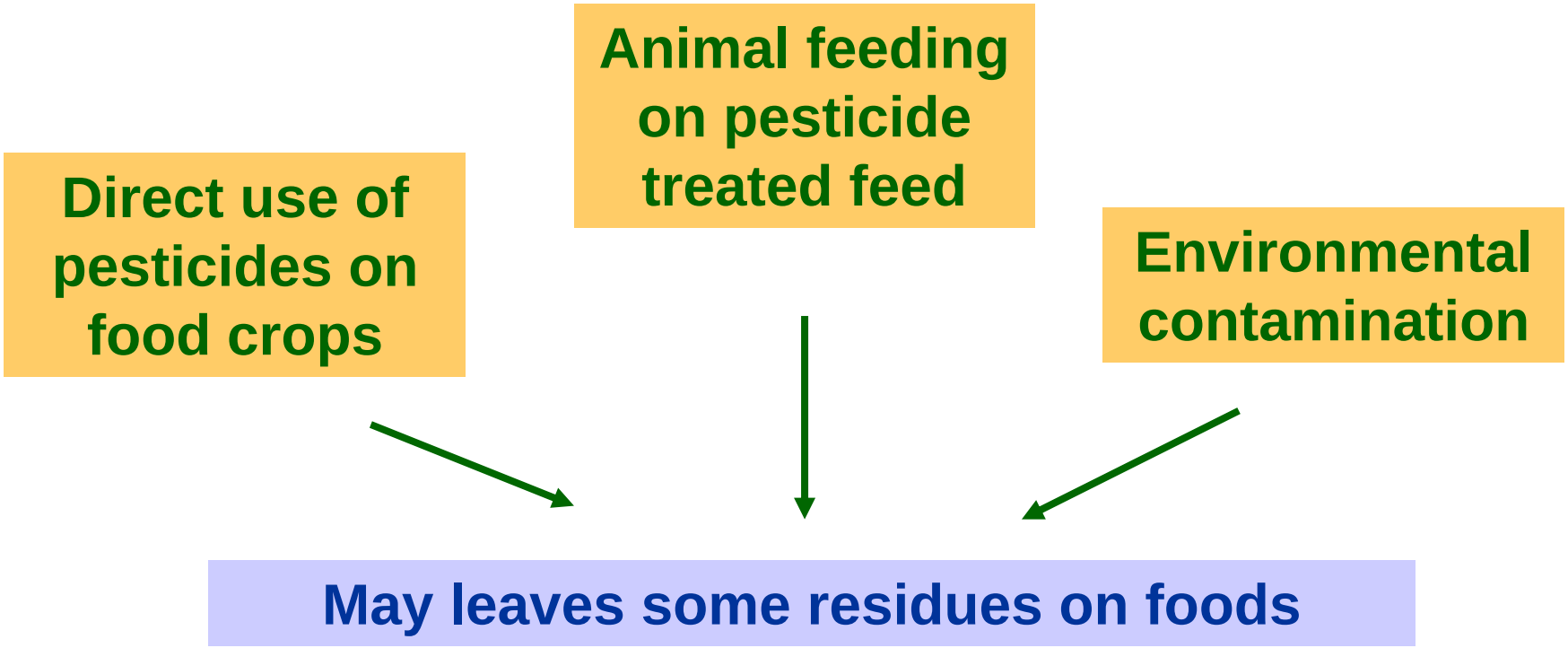
Outline

- Background
- Key features of the regulatory framework
- Introduction on the MRL/EMRL
- Enforcement related issues

Background

Why would pesticide residues appear in food?



Effects of pesticide residues on health

- Depend on the nature of the pesticide, as well as the amount and duration of exposure
- Possible adverse effects due to excessive intake of pesticide residues：
  - Acute effects：methamidophos may affect nervous system
  - Chronic effects：lindane may affect the kidney and liver of animals, dicofol may affect foetal development

Food supply in Hong Kong

- Mainly imported from different countries
- Locally produced fresh vegetables (2010)
  - accounted for ~2.5% of fresh vegetables consumed in Hong Kong
- Percentage of fresh and semi-processed fruits, vegetables and cereals imported from different countries (2010)
  - Mainland China – 33%
  - Thailand – 30%
  - USA – 13%
  - Other countries – < 5%

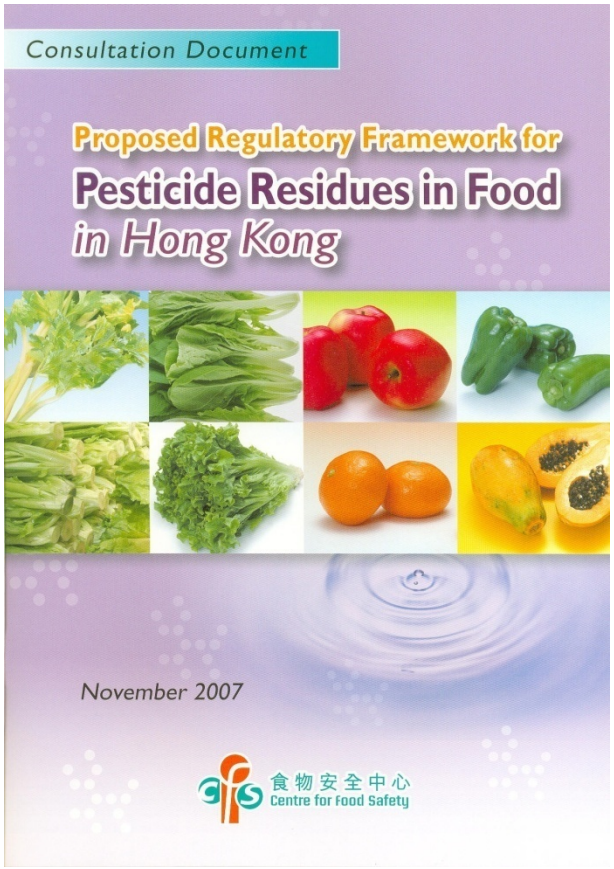
Current Situation on the Regulation of Pesticide in Hong Kong (1)

- Pesticide Ordinance (Cap. 133) – AFCD
  - Import, manufacture, sale and supply of pesticides in Hong Kong
- Public Health and Municipal Services Ordinance (Cap. 132) – FEHD
  - All food on sale must be wholesome, unadulterated and fit for human consumption
  - No legal provision that specifically directs at controlling the level of pesticide residues in food

Current Situation on the Regulation of Pesticide in Hong Kong (2)

- The Administration proposes to introduce a regulatory framework to regulate pesticide residues in food in Hong Kong
  - better protect public health
  - facilitate effective regulatory control
  - Promote harmonisation between local and international standards
  - Maintain stable supply of food in Hong Kong

Public Consultation Exercise: Nov 2007 to Jan 2008



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- The regulatory framework has been refined
  - Comments and views gathered from the consultation exercise
  - Latest developments in the international communities

Key Features of the Regulatory Framework

Main Structure of the Framework

- Reference from the Codex Alimentarius Commission (Codex)
- Salient features:
  - Definition of “pesticides” and related terms
  - Classification of foods
  - A specific list of residue limits
  - A list of exempted substances

Definition of “Pesticides” and Other Related Terms

- Make reference mainly to definitions adopted by Codex for key terms such as pesticide, pesticide residue, maximum residue limit (MRL), extraneous maximum residue limit (EMRL)

Classification of Food

- Since Codex standards form the backbone of the local set of standards, the Codex food classification system would be adopted for consistency
  - Uniform nomenclature used in international trade

A Specific List of Residue Limits

- Specify the limits of pesticide residues that are allowed to be found in the specific kinds of food
- The presence of any of these pesticide residues in food at levels exceeding the specified maximum concentration (i.e. MRLs/EMRLs) for the given pesticide-food pairs will contravene the legislation

A List of Exempted Substances

- MRLs/EMRLs in food are considered not necessary

- Purposes:
  - To encourage the use of natural pesticides by the trade
  - To provide transparency in enforcement when dealing with food import

A List of Exempted Substances

- The substances used fall under the definition of pesticides; and
- Fulfill either of the following criteria:
  - the use of the pesticides do not result in residues occurring in food; or
  - the residues are identical to or indistinguishable from natural food components; or
  - the residues are of no toxicological significance or public health concern.

Introduction to the MRL/EMRL

Major Principles for Establishing MRLs/EMRLs (1)

- On the basis of the application of Good Agricultural Practice (GAP) with a view to reducing the use of pesticides
- GAP includes the use of pesticides necessary for pest control which leaves a residue with the smallest amount practicable
  - A residue level exceeding MRL ➔ non-compliance with GAP

Major Principles for Establishing MRLs/EMRLs (2)

- To ensure common food items are provided with the relevant pesticide residue levels
  - adopting Codex standards as the backbone
  - related standards of the Mainland and other major food exporting countries to Hong Kong (USA and Thailand) will also be incorporated
- A pragmatic approach
  - Hong Kong's heavy reliance on imported food

Major Principles for Establishing MRLs/EMRLs (3)

- Scrutinized in a two-step approach
  1. Establishing the preliminary MRL list
  2. Conducting risk assessment using internationally accepted methods
     - assess whether the proposed MRLs/EMRLs are adequate to protect public health in the local setting
- The residue limits specified in the legislation will be updated by DFEH regularly

Dried, Dehydrated, Concentrated, Processed or Compounded Food

- The MRLs/EMRLs shall apply to any food in a dried, dehydrated or concentrated form with adjustment determined with respect to the mass of the food after dilution or reconstitution, where appropriate;
- Apart from food in a dried, dehydrated or concentrated form, the MRLs/EMRLs shall apply equally to primary food commodities and processed food;
- Any compounded food may contain any pesticide residue if the proportion of the pesticide residue present in the compounded food does not exceed, in relation to the quantity of the relevant food used, the level permitted by the MRLs/EMRLs.

Pesticide Residues with No Specified MRL/EMRL in the Legislation

- General principle (except for exempted substances)
  - Import and sale of the concerned food will be prohibited
  - Unless DFEH is satisfied that the detected level of pesticide residue is not dangerous or prejudicial to health
    - Risk assessment will be conducted

Preliminary List of Proposed MRLs and EMRLs (1)

- For illustration purpose to facilitate discussion with stakeholders only.
- Subject to further update and amendments based on the latest standards in the coming few months.

Preliminary List of Proposed MRLs and EMRLs (2)

- Codex Alimentarius Commission
  - MRLs and EMRLs (up to July 2008)
- Mainland China
  - MRLs and EMRLs: National Standard for the People's Republic of China – Maximum residue limits for pesticides in food (GB 2763-2005)
- USA
  - MRL: US Code of Federal Regulations, 40 CFR Part 180 (up to July 2008)
  - EMRL: US FDA's *Compliance Policy Guides* (2000)
- Thailand
  - MRL: Thai Agricultural Commodity and Food Standard (TACFS 9002-2006)
  - EMRL: Thai Ministry of Public Health Notification No. 288 B.E.2548 (2005)

For illustration purpose only. This list will be subject to further update and amendments based on the latest standards in the coming few months. 公佈此初步名單的目的是為說明限量標準。這個名單將會在未來數個月根據最新的標準，進一步更新和修訂。

		Pesticide	除害劑	Residue Definition	殘餘物定義	MRL最高殘餘限量(M)/EMRL 再殘餘限量(E)	Codex Food Code 食物編號	Food	食物	Proposed limit 建議限量 (mg/kg)	*	Po/PoP	F/Fat	Remarks	備註
1	1	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FC 0208	Orange, sweet	甜橙	0.1					
1	2	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FC 4027	Tangerine	桔	0.1					
1	3	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FI 0353	Pineapple	鳳梨	0.05					
1	4	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FP 0226	Apple	蘋果	1					
1	5	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FP 0230	Pear	梨	1					
1	6	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FP 0231	Quince	榲桲	1					
1	7	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FS 0244	Cherry, Sweet	甜櫻桃	0.1					
1	8	1-Naphthaleneacetic acid	1-萘乙酸	1-Naphthaleneacetic acid	1-萘乙酸	M	FT 0305	Olives	橄欖	0.1	*				
2	1	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	GC 0640	Barley	大麥	0.1	*				
2	2	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	GC 0647	Oats	燕麥	0.1	*				
2	3	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	GC 0649	Rice	大米	0.1	*				
2	4	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	GC 0651	Sorghum	高粱	0.1	*				
2	5	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	GC 0654	Wheat	小麥	0.1	*				
2	6	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	SO 0691	Cotton seed	棉籽	0.1	*				
2	7	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	SO 0699	Safflower seed	紅花籽	0.1	*				
2	8	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	2-(Thiocyanomethyl-thio)benzothiazole	2-(硫氰酸甲基巰基)苯並噻唑	M	VR 0596	Sugar beet	甜菜	0.1	*				
3	1	2,4-D	2,4-滴	2,4-D	2,4-滴	M	CM 0649	Rice, husked	糙米	0.1					
3	2	2,4-D	2,4-滴	2,4-D	2,4-滴	M	CM 1205	Rice, polished	白米	0.1					
3	3	2,4-D	2,4-滴	2,4-D	2,4-滴	M	CM 1207	Rice hulls	稻殼	2					
3	4	2,4-D	2,4-滴	2,4-D	2,4-滴	M	DH 1100	Hops, dry	乾蛇麻果	0.2					
3	5	2,4-D	2,4-滴	2,4-D	2,4-滴	M	DM 0659	Sugar cane molasses	甘蔗糖蜜	0.2					
3	6	2,4-D	2,4-滴	2,4-D	2,4-滴	M	FB 0018	Berries and other small fruits	漿果和其他小水果	0.1					
3	7	2,4-D	2,4-滴	2,4-D	2,4-滴	M	FC 0001	Citrus fruits	柑橘類水果	1		Po			
3	8	2,4-D	2,4-滴	2,4-D	2,4-滴	M	FI 0353	Pineapple	鳳梨	0.05					
3	9	2,4-D	2,4-滴	2,4-D	2,4-滴	M	FP 0009	Pome fruits	梨果類水果	0.01	*				
3	10	2,4-D	2,4-滴	2,4-D	2,4-滴	M	FS 0012	Stone fruits	核果類水果	0.05	*				
3	11	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0640	Barley	大麥	2					
3	12	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0645	Maize	玉米	0.05					
3	13	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0646	Millet	粟子	2					
3	14	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0647	Oats	燕麥	2					
3	15	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0649	Rice	大米	0.5					
3	16	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0650	Rye	裸麥	2					
3	17	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0651	Sorghum	高粱	0.01	*				
3	18	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0654	Wheat	小麥	2					
3	19	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0655	Wild rice	野米	0.05					
3	20	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GC 0656	Popcorn	爆花用玉米	0.05					
3	21	2,4-D	2,4-滴	2,4-D	2,4-滴	M	GS 0659	Sugar cane	糖甘蔗	0.05					

Enforcement Related Issues

Penalty

- Maximum penalty for non-compliance
  - A fine at level 5 ($50,000); and
  - Imprisonment for six months.
- In line with penalty for selling food which is unfit for human consumption under section 54 of Cap. 132

Grace Period

- A two-year grace period is proposed
  - To allow sufficient time for the trade to comply with the new regulatory requirement
- CFS will provide briefings and technical training for different sectors
  - Specific guidelines and information for different stakeholders will be produced to familiarise them with the new regulatory framework

Way Forward

- First half of 2011 : Update of preliminary set of proposed residue limits
- Mid 2011: Public consultation
- End 2011 : Introduce the relevant legislation into the LegCo

Thank You