

Report on Special Survey 2006

Pesticide Residues and Heavy Metals in Fresh Fruits

Background

Fruits are staple dietary items for the population of Hong Kong. It is important therefore that the public be reassured that such foods can be safely consumed. However, there are concerns from time to time over the presence of pesticide residues and heavy metals in fruits. Under the routine food surveillance programme of the Centre for Food Safety (CFS), while some constant numbers of samples of fruits were taken for testing of pesticides, relatively few samples have been tested for heavy metals. A more intensive study of fruits for pesticide residues and heavy metals is therefore conducted.

Currently, the maximum limits of heavy metals in specified foods are stipulated in the Food Adulteration (Metallic Contamination) Regulations, Cap 132V. There is however no specific legislation on the level of pesticides in food. CFS takes reference from standards published by Codex Alimentarius Commission on pesticides monitoring.

Objective

The main objective of the survey is to assess the presence of pesticide residues as a reflection of good agricultural practice and heavy metals in fresh fruits and the potential health risks so as to provide appropriate information to consumers and the trade.

Sampling Method

During the period July to October 2006, a total of 357 samples of some 40 different types of fruits were collected from supermarkets, market stalls and fruits shops. The fruits sampled included longan (46), melon (42), lychee (36), orange/mandarin (26), apple (20), banana (18), pear/snow pear (16), berry (10), grape (10), mango (10) and others (123).

Laboratory Test

The edible portions of the samples were tested (without washing) for some 50 pesticides (organophosphates such as isocarbophos, methamidophos and omethoate; and pyrethroids such as cypermethrin and permethrin,) and heavy metals (antimony, arsenic, cadmium, chromium, lead, mercury and tin).

Result

	Pesticides		Heavy metals	
	No. of samples	No. of unsatisfactory samples	No. of samples	No. of unsatisfactory samples
Fruits	196	0	161	0

Conclusion

Test results of some 350 fruit samples for pesticide residues and heavy metals were all satisfactory. There is no evidence to suggest that pesticide residues or heavy metals in fruits pose health risk to consumers.

Consumers are advised to observe the followings:

- To wash fresh fruits (including those fruits that needed peeling) thoroughly under running tap water before peeling, cutting or consumption;
- To allocate a specific work area as well as designated equipment and utensils to handle pre-cut fruits to prevent cross contamination;
- To refrigerate pre-cut fruits immediately after preparation (i.e. at a temperature of 4°C or below); and
- To discard pre-cut fruits if left at room temperature for more than two hours.

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