

Contaminated vegetables: Tainted vegetables at Selayang wholesale market

By : Chai Mei Ling



Almost one-third of the vegetables from the Selayang wholesale market studied exceeded the maximum residue level allowed by the law.

KUALA LUMPUR: Selangor's most frequently consumed vegetables have been found to be highly contaminated with carcinogenic pesticide residues.

This was the finding of a study done by the Institute for Medical Research (IMR) and Universiti Kebangsaan Malaysia.

The study showed that all celery and curry leaf samples taken from the wholesale market in Selayang tested positive for three groups of cancer-causing pesticides.

At least 40 per cent of the spinach (bayam), kangkung, round cabbage and Chinese mustard were contaminated. The tests were done on unwashed vegetables.

Of these vegetables, almost one-third exceeded the maximum residue level (MRL) allowed by the Food Act (1983) and Regulation (1985).

The Selayang market supplies to about three-quarters of the supermarkets, wet markets, night markets and grocery stores in the state.

The results of the study were announced at the 10th Asean Food Conference which ended on Thursday in Subang.

Researcher Dr Nurul Izzah Ahmad from IMR described the findings as "alarming".

"We found it hard at first to believe that the celery and curry leaves were 100 per cent contaminated.

"But when we tested the curry leaves taken from our own garden, and found no traces of pesticide residues, we knew there was nothing wrong with the figures."

The three-pronged research by IMR and the university took five years to complete.

It collected data on vegetable consumption among adults in Selangor, determined pesticide levels in vegetables, and calculated the estimated pesticide exposure among consumers.

A total of 93 samples of six popular vegetables from the wholesale market were tested for 20 pesticides from the organochlorines, organophosphorus and synthetic pyrethroids groups.

Two-thirds were contaminated with at least one pesticide. Almost half had two to four types of pesticides.

The high level of contamination showed that farmers had not been adhering to the pre-harvest interval, said Nurul.

"They harvest the crops much earlier than they should," said Nurul, who is with IMR's environmental health research centre.

"Pesticides, which have a certain shelf life, have not fully disintegrated when the vegetables are collected."

Nursiah Md Tajol Aros, director of the pesticide control division at the Department of Agriculture, said they were not aware of the study and would look into it when they receive a copy of the report.

She said it was hard to trace the source of the contaminated vegetables as the Selayang market got its supplies from all over the country.

The pesticide control division conducted monthly monitoring sessions at the farms, Nursiah added.

"If the farmers use too much pesticides, we advise them to carry out good agricultural practices. We adopt the soft approach.

"The enforcer is the Ministry of Health, which conducts checks at the retail level."

Despite the alarming findings, the research, completed last year, indicated the potential health risk of consuming these pesticide residues as "low".

"The samples from the market were raw and untreated. We did not wash the vegetables prior to testing them so that we can get the maximum level of pesticide residue," said Nurul.

"But before eating them, most people would have washed, soaked and cooked the vegetables, greatly reducing the amount of residues consumed."

The study showed that an adult in Selangor is estimated to eat about 5.88 microgram/kg body weight/day of pesticide, which is about four times lesser than the acceptable daily intake set by the Food and Agriculture Organisation and World Health Organisation.

However, this only applied to people who took a moderate amount of vegetables (160g), said Nurul.

"We don't know how much pesticide people who eat a lot of vegetables are exposed to. We plan to conduct a study soon."

Gurmit Singh, the executive director of the Centre for Environment, Technology and Development Malaysia, said: "The fact that one-third of the vegetables studied exceeded the residue level is cause for concern."

As the study showed that 97 per cent of pesticide consumption comes from leafy vegetables, Nurul advised the public to clean them adequately before eating.

Vegetables must be soaked with salt to remove worms, larvae, eggs and pesticides.

"Choose vegetables with holes. The nice-looking vegetables are not always the best.

"Consumers must change their perception.

"When there's no demand for nice-looking vegetables, farmers will reduce the use of pesticides.

"Eat more tubers and fruit vegetables like brinjal, cucumber and kacang, which contain less pesticide residues."

-NST