



Clearing the air on fogging



Ang says fumigation is a science and an art.



A municipal council worker conducts fogging at a residential area in Sungai Buloh.

KUALA LUMPUR — The streets and residential areas have been receiving visits from fumigators recently, as the country locked in its highest ever number of dengue cases.

The government has been seen to be taking reactive measures following the reported cases. However, fogging is considered a "quick fix and non-proactive" solution, according to Federation of Southeast Asian Fumigators (Foseaf) president Ang Tan Loong.

"A person does not immediately fall sick after being bitten, so how is one to know where the person contracted the disease?" he questioned. He also claimed judging by the way fogging was done, the fumigators were untrained.

"This has contributed to the ineffectiveness of dengue control efforts," he said.

Ang briefly explained the concept of fumigation, deeming it as a science and an art. The science aspect comprises the scientific team that determines and prepares the chemicals to be used for fumigation.

"It is at this stage that the amount of chemicals is allocated to ensure mosquitoes are killed. The dosage and concentration has to be sufficient," he explained.

The chemicals — either water- or oil soluble-based — is then diluted with water or diesel respectively. The art is in the execution of the fogging, when the trained personnel are sent for "search and destroy" missions.

"It is in the way the fumigating technicians use the chemicals to eliminate pests, as there are a lot of factors involved," Ang explained. "To find the mosquitoes, harbour locations, temperature and time of day are some factors to take into consideration,"

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he said, adding that it was in the execution where the amateurs were separated from the professionals. Another aspect to consider was the type of fogging — mist or thermal.

Smoke or thermal fogging, which usually uses diesel, is done to kill adult mosquitoes but does not leave a residue. "After about half an hour, the mosquitoes will return to the area.

"However mist fogging, which is water-based, uses vapour to attack the mosquitoes and has a residual effect which lasts for a longer period," he added.

Improper fogging would cause mosquitoes to become resistant to the chemicals, making eradication efforts more difficult, Ang said. "The next generation of mosquitoes will become stronger, allowing them to become resistant.

"Efforts to kill them after that would incur a higher cost as a stronger dose of chemicals will be needed," he explained.

Fumigation by untrained personnel had contributed to the ineffectiveness of control efforts, but Ang also said that many of the professionals were not involved in the government's efforts to combat the disease.

He said the message being sent out that mosquitoes were only there during dusk and dawn, was untrue.

"Their harbourage areas are usually in vegetation patches, plants, shrubs and bushes, which is also their hiding place. They come out only when the temperature is conducive for them," he explained, adding that fogging was not just a one-time

thing and required monitoring.

He also said a person who contracted dengue should be monitored as well, though "tagging and monitoring".

"This is when the patient's week-long history is obtained and the locations that they have been to, in order to pinpoint possible places he or she could have gotten bitten by the mosquito," Ang said.

"Sometimes a person may have contracted the disease while at work, but that isn't taken into consideration," he added, explaining that fogging was usually done within a 200-metre radius of a patient's house. He also said mosquitoes were attracted to carbon dioxide emitted from a person's body.

"That is why some people are more susceptible to the bites, especially those who work under the sun," he said.

He added that perfumes could serve as repellants as they suppressed carbon dioxide emission.

Ang had also previously claimed that the chemicals used in fumigation were diluted.

When asked about his allegations, he said he had seen how the fogging was carried out and there was no structured method in the way it was done.

"Just by looking, one can identify if the person fogging is a professional or not because they just spray wherever they feel like it," he said.

He added that there was a specific measurement for each hectare of land and if not followed, the efforts would be a waste of resources.

He also said the federation had suggested to the government to allow professional companies to provide the chemicals for fumigation.



"What is being done now is that a lump sum is paid to the fogging contractors to purchase chemicals and machines, but who is monitoring the dosage used?"

"If we had control of the chemicals, we could ensure the fogging is done properly," he said.

He added that the contractors should not be given a free hand in fogging activities.

"They need to be audited, monitored or have spot checks done regularly," he said.

He added authorities needed to ensure the hired person hired had been properly trained.

Ang also said the eradication of dengue had to be a collective effort that went beyond keeping one's premises clean.

"The people have limited resources and are not to be blamed all the time," he added.

Ang said dengue cases from residential areas made up only a small percentage of total cases compared to public areas.

"The use of larvicide and fogging need to be done simultaneously, so both the young and adult mosquitoes are got rid of."

Ang said that Foseaf was more than happy to provide its services to help the cause.