

CONTROLLING OFFICER'S REPLY

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Head: (49) Food and Environmental Hygiene Department
Subhead (No. & title): (-) Not specified
Programme: (1) Food Safety and Public Health
Controlling Officer: Director of Food and Environmental Hygiene (Miss Vivian LAU)
Director of Bureau: Secretary for Food and Health

Question:

With regard to the rising trend of the number of pest control surveys conducted, please advise on the details and effectiveness of the relevant work in 2019. As it is estimated that the number will continue to increase in 2020-21, please also advise whether sufficient resources have been earmarked with relevant measures drawn up, including the deployment of manpower and allocation of resources; if yes, please give details of the work, manpower and estimated expenditure in this respect; if no, what is/are the reason(s)?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 64)

Reply:

The Food and Environmental Hygiene Department continued to conduct pest control surveys in 2019. The number of surveys conducted has been increased from 10 116 in 2018 to 10 379 in 2019 to enhance surveillance on the distribution and seasonal variation of vector mosquitoes and rodents. Details and effectiveness of the work are as follows:

On mosquito surveys, the Department continued to conduct dengue vector surveillance by setting up ovitraps to understand the distribution of Aedes mosquitoes in all districts. The surveys were conducted 2 weeks per month while the surveillance work at the Hong Kong International Airport and in all sea and land ports in the territory was conducted every week. Besides, the Department continued to carry out Japanese encephalitis (JE) vector surveillance in 8 districts in Hong Kong through setting up light traps every month to collect adult mosquitoes (*Culex tritaeniorhynchus*) for testing the presence of JE virus. During the surveillance period, no JE-infected vector mosquitoes were detected. The malaria vector surveillance, which was conducted by carrying out rotational larval surveys at all fresh water streams in the territory to monitor the distribution of local malaria vectors, also found no breeding of vector mosquitoes. Ad hoc surveys were also carried out by the Department in response to mosquito-borne diseases including dengue fever, JE, Zika virus infection, Chikungunya, etc. The surveys covered the surrounding areas of local movements of patients of relevant diseases.

Besides, the Department has worked on a new design for ovitrap with a sticky trap mounted inside the trap for collecting adult mosquitoes directly. Field trials were conducted in Wong Tai Sin, Cheung Chau and Yau Tong from June to November 2019 and the new design proved effective. The Department will place around 5 000 new ovitraps in the territory in 2020. Apart from the existing monthly ovitrap index for *Aedes albopictus*, the Department will also release the new adult mosquito density index for *Aedes albopictus* to facilitate government departments to formulate more targeted anti-mosquito measures.

On rodent surveys, the Department conducted rodent infestation surveys at half-yearly interval in 41 locations in various districts in the territory and the number of survey locations will be increased to 50 in 2020 for detecting the presence of rodents. The Department continues to conduct rat-flea surveys in selected biotope every year to assess the risk of plague transmission. In 2019, the survey was conducted in peripheral areas of housing estates. Ad hoc surveys were also conducted in response to rodent-borne diseases including Hantavirus infection, scrub typhus, urban typhus, spotted fever, leptospirosis, rat hepatitis E virus infection, etc. The surveys covered the surrounding areas of local movements of patients of relevant diseases.

In addition, the Department conducted a test on a synthetic and non-poisonous bait having different flavours of food in the rodent infestation surveys in 2019. The bait is compared to sweet potatoes currently used in terms of their attractiveness to rodents, with a view to assessing whether the sensitivity of rodent infestation surveys can be enhanced by placing baits that are more attractive. The Department has proactively introduced new technologies to monitor rodent infestation. Since April 2019, the Department has been putting on trial night-vision and thermal imaging cameras with artificial intelligence analytical function and collecting data of rodent activities to quantify and assess the effectiveness of anti-rodent operations.

The estimated number of pest control surveys in 2020 will be increased to 10 800 and the relevant estimated expenditure in 2020-21 is \$56.6 million. Depending on the latest progress of pest control work, manpower will be provided through internal redeployment of resources to cope with the work demand.

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