

August's monthly gravidtrap index for Aedes albopictus continues to fall

The Food and Environmental Hygiene Department (FEHD) today (September 17) announced that the monthly gravidtrap index for *Aedes albopictus* (MGI) in August dropped to 6 per cent from 7.4 per cent in July, which is at Level 2, indicating that mosquito infestation was slightly more extensive in the areas surveyed but maintained at a relatively low level. Except for Tseung Kwan O North (20.8 per cent), no other areas in the 62 survey areas recorded an area gravidtrap index (AGI) exceeding the alert level of 20 per cent. Moreover, the monthly density index for *Aedes albopictus* (MDI) slightly dropped to 1.2 in August from 1.3 in July, which represented that an average of 1.2 *Aedes albopictus* adults were found in the *Aedes*-positive gravidtraps, indicating that the number of adult *Aedes albopictus* was not high in the areas surveyed. While the indices have declined, given that the temperature of autumn in Hong Kong is still high with more rain recently, which is favourable for the breeding of mosquitoes, the public must stay alert and work with the Government to continue to carry out effective mosquito prevention and control measures.

As for the port areas, the monthly port gravidtrap index also dropped to 0.9 per cent in August from 1.1 per cent in July, while the monthly port density index in August remained at 1.1 as in July.

A spokesman for the FEHD said, "The FEHD is very concerned about mosquito infestation and relevant government departments have enhanced co-operation and commenced the All-out Anti-mosquito Operations in April. Major anti-mosquito measures include carrying out fogging in the scrubby areas within a 100-metre radius around residences weekly to kill adult mosquitoes, carrying out inspections, removing stagnant water, applying insecticide and disposing of abandoned water containers weekly to prevent mosquito breeding, and trimming of grass to discourage resting of adult mosquitoes on the site. The FEHD and relevant government departments will continue the above mosquito prevention and control work in areas under their purview and will strengthen publicity and education campaigns. In addition, the FEHD collaborates with relevant government departments every year to conduct the three-phase Anti-mosquito Campaign. The third phase of the Campaign started last month and will last until October 30. During the period, the district offices of the FEHD target areas which draw particular concern, such as locations in close proximity to human residences, schools, construction sites, public housing estates, hospitals, illegal cultivation sites, waterfront public and private cargo handling areas, cross-boundary checkpoints, typhoon shelters and cross-boundary ferry terminals, to remove accumulated water and carry out mosquito prevention and control work."

Since April this year, the FEHD has put in place newly designed gravidtraps as a replacement for the ovitraps previously used to directly count the number of adult mosquitoes to enumerate the gravidtrap index and the new density index. The function of the new gravidtrap index is similar to

that of the ovitrap index previously used in reflecting the extensiveness of distribution of *Aedes albopictus* in the survey area. The new density index indicates the average number of adult *Aedes albopictus* collected in each *Aedes*-positive gravidtrap in the survey area in order to better quantify the activity level of *Aedes albopictus*. To enhance dengue vector surveillance, the FEHD has increased the number of survey areas from 57 to 62 from June this year.

The AGI and the area density index (ADI) indicate the extensiveness of distribution and the density of *Aedine* mosquitoes respectively in that particular survey area, while the MGI and the MDI are enumerated by pooling together all AGIs and ADIs of the same month, which reflects the general situation of *Aedes albopictus* in all survey areas.

The gravidtrap index for *Aedes albopictus* is divided into four levels, reflecting the infestation level of *Aedes albopictus*. Level 1 (less than 5 per cent) indicates that infestation of mosquitoes is not extensive in the area surveyed. Level 2 (5 per cent to less than 20 per cent) indicates that infestation of mosquitoes is slightly more extensive in the area surveyed. Level 3 (20 per cent to less than 40 per cent) indicates that infestation of mosquitoes exceeds one-fifth of the area surveyed. Level 4 (40 per cent or above) indicates that almost half of the area surveyed is infested with mosquitoes. Specific preventive and control measures will be initiated accordingly.

The FEHD will collect the data of the density index this year to evaluate the effectiveness of mosquito control work. After sufficient data has been collected, the FEHD will establish a reference level for the corresponding prevention and control measures for the density index.

The spokesman said, "*Aedes albopictus* is a kind of mosquito that can transmit dengue fever (DF) as well as Zika virus infection. DF is commonly found in tropical and subtropical regions of the world, and has become endemic in many countries in Southeast Asia. The World Health Organization also issued warnings that the number of DF cases recorded in Asia last year was higher than before. As Hong Kong has recorded this year's first local DF case in April and the dengue activity in neighbouring areas has remained high, and the temperature of autumn in Hong Kong is still high with more rain recently, conditions are favourable for the breeding of mosquitoes. The public must stay vigilant and work with the Government to carry out effective mosquito control measures."

The spokesman added that as *Aedes albopictus* breeds in small water bodies, members of the public should carry out effective mosquito prevention and control measures including inspecting their homes and surroundings to remove potential breeding grounds, changing the water in vases and scrubbing the inner surfaces, removing the water in saucers under potted plants at least once a week, properly disposing of containers such as soft drink cans and lunch boxes, and drilling large holes in unused tyres. He also advised public and estate management bodies to keep drains free of blockage and level all defective ground surfaces to prevent accumulation of water. They should also scrub all drains and surface sewers with an alkaline detergent at least

once a week to remove any mosquito eggs.

In addition, rural areas and the vicinity of shrubby areas are natural habitats for mosquitoes, other insects and animals. Members of the public living in rural areas may install mosquito screens on windows and doors if necessary. Those staying in the natural environment should take appropriate personal protective measures against mosquitoes, such as avoiding staying in the vicinity of shrubby areas for a long time, wearing light-coloured long-sleeved clothes and trousers and applying DEET-containing insect repellent. Members of the public are reminded to make reports to relevant government departments via 1823 if mosquito problems are detected.

The spokesman reiterated that effective mosquito control requires the sustained effort of all parties concerned. The community must work together with the Government to carry out effective mosquito control measures.

The gravidtrap and density indices for *Aedes albopictus* in different areas and information on mosquito prevention and control measures are available on the department's website at www.fehd.gov.hk.