

**CONTROLLING OFFICER'S REPLY**

**EEB(F)125**

**(Question Serial No. 2215)**

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 (Ms Irene YOUNG)

Director of Bureau: Secretary for Environment and Ecology

Question:

With regard to the prevention and control of rodents, please advise this Committee of:

1. the civil service staffing and the total number of outsourced pest control workers involved in pest control work, the overall expenditure on pest control services, the government staff cost for pest control work and the total value of the pest control service contracts in each of the past 3 years;
2. the number of poison treatments of rodent infestation in building blocks, the number of rodent trappings, the number of dead rodents collected, the number of live rodents caught, the number of rat holes filled, the number of rodent control surveys conducted, the number of rodent infestation complaints received and the Rodent Infestation Rate recorded, in each of the past 3 years, with a breakdown by District Council district;
3. the effectiveness of the new rodent control methods and technologies trialed by the Food and Environmental Hygiene Department in the past year and the expenditure involved;
4. the number of thermal imaging cameras to be installed in different districts this year and the relevant timetable, and whether the Department will further increase the number of thermal imaging cameras and regularly extend the scanning coverage in order to reflect the actual rodent infestation situation over the territory; if yes, the details; if no, the reason(s); and
5. whether the use of alcohol rodent trapping devices will be extended to all public markets and public housing estates over the territory; if yes, the details; if no, the reason(s).

Asked by: Hon YANG Wing-kit (LegCo internal reference no.: 20)

Reply:

1. The manpower and expenditure involved in pest control work, including rodent and mosquito prevention and control, of the Food and Environmental Hygiene Department (FEHD) are as follows:

Year	Civil service staffing		Total number of staff employed by pest control service contractors
	Planning and implementation of pest control work in districts	Vector surveillance, technical support and advisory work	
2021	745	109	2 232
2022	745	109	2 199
2023	745	109	2 352

Year	Overall expenditure on pest control services <sup>Note</sup> (\$ million)	Government staff costs for pest control work (\$ million)	Expenditure on pest control service contracts (\$ million)
2021-22	762	275	413
2022-23	786	286	457
2023-24 (Revised estimate)	808	291	439
2024-25 (Estimate)	875	297	503

Note: The overall expenditure on pest control services includes the expenditure on government staff, service contracts and other day-to-day operating expenses.

2. The number of poison treatments of rodent infestation conducted in building blocks and other public places, the number of rodent trappings used, the number of dead rodents collected, the number of live rodents caught, the number of rat holes filled, the number of rodent control surveys conducted and the number of rodent infestation complaints received by FEHD as well as the Rodent Infestation Rate in the past 3 years, with a breakdown by District Council district, are provided at **Annex 1**.
3. The new rodent control technologies and tools tried out by FEHD in the past year, their effectiveness and the expenditure involved are provided at **Annex 2**.
4. From 2024 onwards, FEHD has fully adopted thermal imaging cameras with artificial intelligence technology for conducting the Rodent Activity Survey (RAS) as a replacement for the Rodent Infestation Survey (RIS). The RAS will be conducted in all districts across the territory once every 6 months. FEHD will take into account a basket of factors, including rodent-related complaint figures which have been confirmed upon investigation, number of live and dead rodents caught, inspection results, the views from local communities, etc., to identify locations with potential rodent problems in each district as the sampling frame. For each survey, based on factors such as geographical distribution and complaint figures, approximately 100 locations will be selected from the sample base via stratified sampling for installation of thermal imaging cameras for capturing thermal images in order to effectively deploy resources and ensure the representativeness of the sampled locations. Artificial intelligence will be used in the survey to help analyse the images and identify the presence of rodents. Based on the analysis results, FEHD will enumerate a Rodent Absence Rate (RAR) for that district.

The RAS for the first half of 2024 has already commenced, and the RARs for the 5 districts covered in the first phase, including Central and Western, Wan Chai, Eastern, Mong Kok and Sham Shui Po Districts, have been published. The surveys for the remaining 14 districts are commencing in phases, and the findings will be progressively published and uploaded onto the website of FEHD for public information.

The current phase of the RAS covers public places, including streets and rear lanes, where FEHD provides rodent control services. The Government is considering extending the coverage of the survey to places managed by other departments, such as public housing estates, parks and open spaces.

5. FEHD has conducted trials progressively on alcohol rodent trapping devices in public markets and refuse collection points since October 2022. The results are positive. Currently, FEHD adopts the use of alcohol rodent trapping devices as an additional rodent trapping tool in 14 markets/cooked food markets under its management. The equipment will be deployed for use in other markets/cooked food markets as necessary. FEHD does not keep information on the use of alcohol rodent trapping devices by the Housing Department in public housing estates.

## Annex 1

District	2021							
	Number of poison treatments of rodent infestation in building blocks and other public places	Number of rodent trappings	Number of dead rodents collected	Number of live rodents caught	Number of rat holes filled	Number of rodent control surveys	Number of rodent infestation complaints received	Rodent Infestation Rate
Central and Western	4 800	5 115	2 040	1 679	110	27	822	2.2%
Eastern	17 921	7 229	2 053	2 259	116	48	810	4.2%
Southern	3 343	1 206	706	537	243	50	206	2.1%
Wan Chai	13 056	4 045	1 532	2 920	642	15	986	5.5%
Kowloon City	5 469	9 540	2 474	2 102	90	33	1 064	3.8%
Kwun Tong	6 264	4 490	2 740	3 528	116	47	349	0.0%
Wong Tai Sin	1 964	3 435	1 424	2 137	173	33	365	4.9%
Sham Shui Po	414	6 449	3 763	6 198	5 943	33	846	5.2%
Yau Tsim Mong	4 080	12 571	6 732	4 690	7 553	45	1 215	8.7% (Yau Tsim) 3.4% (Mong Kok)
Sha Tin	5 291	8 786	1 237	799	1 036	47	473	1.5%
Tai Po	14 794	771	1 126	713	126	41	409	3.6%
North	1 705	864	1 307	760	5	47	356	2.2%
Kwai Tsing	1 692	3 048	466	747	374	47	520	2.5%
Tsuen Wan	3 014	5 112	958	1 864	449	41	403	4.6%
Tuen Mun	6 011	2 146	881	755	96	47	508	2.2%
Yuen Long	6 679	6 900	1 634	1 377	328	47	860	2.3%
Sai Kung	12 402	1 868	874	539	54	47	688	3.7%
Islands	786	2 589	1 389	242	386	47	222	0.5%
Whole territory	109 685	86 164	33 336	33 846	17 840	742#	11 102	3.1%

# Only surveys conducted under the RIS and the Rat-flea Survey are listed. Other rodent surveys (1 344 in number) are not included in the breakdown.

District	2022							
	Number of poison treatments of rodent infestation in building blocks and other public places	Number of rodent trappings	Number of dead rodents collected	Number of live rodents caught	Number of rat holes filled	Number of rodent control surveys	Number of rodent infestation complaints received	Rodent Infestation Rate
Central and Western	4 956	5 001	1 885	1 873	194	50	655	3.0%
Eastern	14 152	3 467	1 363	2 982	47	50	682	2.4%
Southern	3 843	1 240	465	936	472	50	134	2.4%
Wan Chai	12 864	4 066	1 402	2 915	478	18	829	2.7%
Kowloon City	6 505	4 983	1 915	2 271	172	52	823	5.1%
Kwun Tong	7 028	4 673	2 037	3 779	123	52	346	3.2%
Wong Tai Sin	2 904	4 092	1 298	2 481	329	44	243	6.6%
Sham Shui Po	708	6 660	4 132	5 842	8 400	62	1 014	3.0%
Yau Tsim Mong	5 445	13 496	6 639	6 862	6 858	62	1 741	5.5% (Yau Tsim) 3.4% (Mong Kok)
Sha Tin	5 294	2 325	1 298	1 253	1 108	36	499	2.9%
Tai Po	14 352	1 272	1 692	957	448	18	384	0.9%
North	3 140	4 755	1 041	2 281	9	38	310	3.8%
Kwai Tsing	1 296	3 106	692	1 007	377	38	632	4.1%
Tsuen Wan	2 880	5 225	906	2 903	459	30	423	2.6%
Tuen Mun	7 651	2 350	1 747	2 681	155	52	496	3.1%
Yuen Long	7 339	6 955	1 550	2 723	285	38	887	3.6%
Sai Kung	11 952	1 914	746	794	111	38	474	1.5%
Islands	774	2 568	1 002	882	393	18	191	2.9%
Whole territory	113 083	78 148	31 810	45 422	20 418	746 <sup>^</sup>	10 763	3.3%

<sup>^</sup> Only surveys conducted under the RIS and the Rat-flea Survey are listed. Other rodent surveys (1 354 in number) are not included in the breakdown.

District	2023							
	Number of poison treatments of rodent infestation in building blocks and other public places	Number of rodent trappings	Number of dead rodents collected	Number of live rodents caught	Number of rat holes filled	Number of rodent control surveys	Number of rodent infestation complaints received	Rodent Infestation Rate
Central and Western	4 713	5 935	1 370	2 261	172	84	640	3.6%
Eastern	12 872	4 554	905	4 004	82	17	729	3.9%
Southern	3 693	1 260	546	1 268	677	29	138	1.0%
Wan Chai	14 084	6 166	1 231	4 402	598	20	705	13.0%
Kowloon City	8 177	5 249	3 811	3 458	173	22	872	5.4%
Kwun Tong	6 708	5 814	1 293	4 277	88	57	319	1.6%
Wong Tai Sin	2 976	3 661	4 031	4 592	150	19	283	3.5%
Sham Shui Po	821	6 384	3 926	6 133	6 568	85	1 151	1.2%
Yau Tsim Mong	5 419	15 613	6 230	9 342	6 972	57	1 946	8.3% (Yau Tsim) 3.8% (Mong Kok)
Sha Tin	4 622	3 562	917	2 598	741	54	501	4.7%
Tai Po	14 103	1 307	2 322	1 465	765	12	319	0.4%
North	3 840	3 223	527	2 414	35	53	245	4.0%
Kwai Tsing	1 188	4 964	1 173	2 052	406	47	624	5.1%
Tsuen Wan	2 881	6 975	557	2 491	201	41	429	4.1%
Tuen Mun	7 717	2 541	2 501	4 521	191	53	588	2.5%
Yuen Long	9 687	11 322	1 960	4 843	387	52	966	3.2%
Sai Kung	11 910	2 263	592	1 087	73	18	423	4.3%
Islands	816	2 611	604	2 136	206	19	197	4.8%
Whole territory	116 227	93 404	34 496	63 344	18 485	739*	11 075	3.8%

\* Only surveys conducted under the RIS and the Rat-flea Survey are listed. Other rodent surveys (1 220 in number) are not included in the breakdown.

**New technologies and tools for rodent control,  
their effectiveness and the expenditure involved**

<b>Rodent control technology and tool</b>	<b>Effectiveness</b>	<b>2023-24 Expenditure</b>
<b>Thermal imaging camera surveillance system</b>	FEHD conducted trials on thermal imaging cameras with artificial intelligence analytical function in 2020 and found it effective in facilitating objective assessment of rodent infestation situation. The equipment has been widely employed in the strategic anti-rodent operations. Moreover, FEHD has fully adopted thermal imaging cameras for conducting the RAS as a replacement for the RIS from 2024 onwards to enhance rodent surveillance in districts and deploy more effective anti-rodent operations in blackspots.	About \$5.77 million
<b>Placing poisonous baits in a T-shaped bait box</b>	The bait box was tested between October and November 2020. Test results showed that the T-shaped bait box was more effective than ordinary rectangular bait boxes in attracting rodents to enter and consume the baits. The equipment has been widely employed.	About \$140,000
<b>Alcohol rodent trapping device</b>	FEHD has conducted trials progressively on alcohol rodent trapping devices in public markets and refuse collection points since October 2022. The results are positive. The equipment will be used in suitable places as necessary.	About \$5.78 million
<b>Glue trap</b>	FEHD has tried out the application of glue traps in public markets with more serious rodent infestation as an additional measure for rodent disinfestation since November 2022. Positive results have been achieved, and the rodent infestation problem in public markets has been alleviated effectively. The equipment will be used in suitable indoor venues, such as public markets and refuse collection points, as necessary.	About \$2 million

- End -