

CONTROLLING OFFICER'S REPLY

FHB(FE)136

(Question Serial No. 2462)

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 Diane WONG)

Director of Bureau: Secretary for Food and Health

Question:

1. Please set out (i) the number of poison treatments of rodent infestation in building blocks; (ii) the number of rodent trappings; (iii) the number of dead rodents collected and the number of live rodents caught; (iv) the number of rat holes filled; (v) the number of rodent control surveys conducted; (vi) the number of rodent infestation complaints received; and (vii) the Rodent Infestation Rate recorded, in each of the past 3 years (with a breakdown by District Council district).
2. With regard to (a) pest control work and (b) rodent control work, please provide (i) the total expenditure; (ii) the civil service staffing and the staff cost; and (iii) the total value of the outsourced service contracts and the total number of outsourced workers in the past 3 years and in the coming year.
3. How many anti-rodent operations were conducted in designated target areas in the past 3 years and how effective was each operation?
4. What rodent control methods have been adopted from Mainland China, Macao, Taiwan or overseas countries in the past 3 years and what methods will be adopted in the coming year? What are the expenditure involved (e.g. procurement of relevant devices) and the effectiveness of each method?
5. Please explain the reasons behind the substantial increase in the number of rodent trappings from 68 490 in 2019 to 81 830 in 2020. Has there been a change in the rodent control strategy of the Food and Environmental Hygiene Department?

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 45)

Reply:

1. The information sought is provided at the Annex.

2. The information sought is tabulated as follows:

Year	Overall expenditure on pest control services^{note}	Expenditure on rodent control work^{note}	Staff costs for pest control work^{note}	Total value of pest control service contracts^{note}
2018-19	\$630 million	\$198 million	\$248 million	\$610 million
2019-20	\$663 million	\$218 million	\$268 million	\$914 million
2020-21	\$726 million	\$242 million	\$271 million	\$1.125 billion
2021-22	\$769 million	\$259 million	\$275 million	\$1.331 billion

Note: Revised estimate and Estimate expenditure for 2020-21 and 2021-22 respectively.

Year	Total number of staff engaging in pest control work	Total number of staff employed by pest control service contractors
2018	699	1 860
2019	727	1 970
2020	740	2 180
2021	744	2 200

3. In the past 3 years, the Food and Environmental Hygiene Department launched a total of 6 anti-rodent operations in designated target areas across the territory in April and October 2018, May and November 2019 and May and November 2020 respectively. The measures taken included elimination of food sources and hiding places of rodents as well as blocking their passages. The effectiveness of these anti-rodent operations in the past 3 years are as follows:

Item	2018	2019	2020
Number of poison treatments of rodent infestation	17 678	16 637	15 808
Number of rodent trappings	22 475	38 274	34 982
Number of rat holes filled	803	799	443
Number of dead rodents collected	1 636	1 817	1 226
Number of live rodents caught	1 305	1 573	1 121

4. From 2018 to 2020, the tests conducted by the Department on the rodent control methods/equipment adopted from different places, the expenditure involved and the effectiveness of each method are as follows:

Rodent control method/technology	Place of origin	Effectiveness	Expenditure
Using a non-poisonous bait having flavours of food for the Rodent Infestation Rate surveys	Germany	The bait was tested in public rear lanes in 10 districts between February and September 2018. The results were unsatisfactory.	Around \$60,000
Rodent trapping device driven by pressurised gas	New Zealand	The rodent trapping device was tested in 4 public markets of the Department between October 2018 and June 2019. The devices installed failed to catch any rodents.	Around \$60,000
Night-vision camera surveillance system	Hong Kong	The system was tested in public markets in Kowloon City District and rear lanes in Mong Kok District between April and July 2019. The results have shown that the system with artificial intelligence function is capable of identifying rodents in night-vision images and tracing their movements. It can be employed to monitor the areas and extent of rodent activities and is therefore conducive to quantifying and enhancing the effectiveness of anti-rodent measures.	Around \$760,000
Using a poisonous bait having flavours of food for rodent disinfection	Australia	The bait was tested in the laboratory and public rear lanes in 7 districts respectively for its attractiveness to rodents and poisoning efficacy between October 2019 and July 2020. The results have shown that the poisonous bait is effective in attracting the consumption of rodents and poisoning them. The Department will introduce the use of the bait in its regular anti-rodent work.	Around \$1,000

Rodent control method/technology	Place of origin	Effectiveness	Expenditure
New design snap trap	Germany	The snap trap was tested in 5 districts and 6 markets respectively between January and June 2020. The results have shown that the new design snap trap is effective in catching rodents. The Department will introduce the use of the snap trap in its regular anti-rodent work.	Around \$3,000

Rodent control method/technology	Place of origin	Effectiveness	Expenditure
Using a transparent plastic rodent trapping device to catch rodents	Mainland China	The rodent trapping device was tested in public places in 3 districts between September 2020 and February 2021. The results have shown that the rodent trapping device is not as effective as traditional cage traps in catching rodents.	Around \$4,000
Placing poisonous baits in a T-shaped bait box	Mainland China	The bait box was tested in Kwun Tong District between October and November 2020. The results have shown that the T-shaped bait box is more effective in attracting rodents to enter and consume the baits than ordinary rectangular bait boxes. The Department will introduce the use of the T-shaped bait box in its regular anti-rodent work.	Around \$1,000
Thermal imaging camera surveillance system	Hong Kong	The Department conducted field trials on thermal imaging cameras with artificial intelligence analytical function in rear lanes in Kowloon City District and 9 target areas of the first round of anti-rodent operation in designated target areas in 2020. Both tests have shown that the new technology is quite effective in identifying places where rodents frequently visit and the time and pattern of rodent activities, as well as assessing and quantifying anti-rodent work. The Department installed thermal imaging cameras at the selected locations of all target areas during the second round of anti-rodent operation in designated target areas in November 2020. The Department plans for a wider use of thermal imaging cameras at suitable locations in all districts across the territory in the future (including during the anti-rodent operations in designated target areas) with a view to increasing the	Around \$3.96 million

Rodent control method/technology	Place of origin	Effectiveness	Expenditure
		effectiveness of the operations, and will recommend the technology to other departments.	

The Department will continue to keep in view the methods of vector prevention and control recommended by the World Health Organization and adopted by other places. The Department keeps an open mind on trying out or adopting new technology/methods to further enhance the effectiveness of its rodent control work, on the premise that the methods are suitable for use in local circumstances.

5. In response to increasing public concerns about rodent infestation, the Department has persistently stepped up its anti-rodent work. The number of rodent trappings conducted in trapping operations increased from 68 490 in 2019 to 81 830 in 2020. In the same period, the number of rodents caught also increased from 23 727 to 28 872 while that of rodent complaints received decreased from 11 329 to 10 331.

Disinfestation operations by the Department in public places alone cannot solve the problem. Rodent control measures taken by the public in their own premises are also important. It is part of the Department's anti-rodent operations to provide education on prevention and control of rodent infestation to the public and offer them technical support.

District	2018							
	Number of poison treatments of rodent infestation in building blocks	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	RIR
Central and Western	4 432	4 772	1 890	1 763	258	45	992	3.6%
Eastern	18 699	2 480	2 398	890	156	45	884	2.1%
Southern	3 394	935	713	439	105	25	171	0.5%
Wan Chai	8 446	3 760	1 622	805	163	40	909	2.8%
Kowloon City	4 608	11 309	2 592	1 666	332	29	1 128	6.1%
Kwun Tong	6 587	1 876	2 434	819	225	42	487	5.8%
Wong Tai Sin	950	333	1 441	413	146	25	338	1.0%
Sham Shui Po	308	5 522	3 853	2 241	3 258	45	1 381	6.7%
Yau Tsim Mong	1 510	8 331	3 217	2 364	1 050	70	1 199	2.4% (Yau Tsim) 6.0% (Mong Kok)
Sha Tin	4 548	9 167	858	703	910	25	696	4.7%
Tai Po	13 560	384	771	585	902	40	352	2.7%
North	3 232	424	1 034	464	380	42	387	2.5%
Kwai Tsing	1 457	569	408	520	246	42	336	1.0%
Tsuen Wan	3 182	4 176	823	1 631	225	42	376	5.1%
Tuen Mun	4 703	1 927	503	128	102	45	411	2.1%
Yuen Long	6 585	664	1 654	602	43	42	892	3.9%
Sai Kung	6 966	1 201	480	231	244	30	381	2.2%
Islands	648	2 602	1 183	240	384	25	343	1.4%
Whole territory	93 815	60 432	27 874	16 504	9 129	699#	11 663	3.4%

Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 334 in number) are not included in the breakdown.

District	2019							
	Number of poison treatments of rodent infestation in building blocks	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	RIR
Central and Western	4 594	4 912	2 029	1 661	260	23	1 074	1.6%
Eastern	21 771	2 483	2 330	1 182	217	40	818	3.2%
Southern	3 815	1 117	611	464	73	25	112	2.2%
Wan Chai	12 544	3 569	1 533	1 213	611	42	988	11.7%
Kowloon City	4 640	11 196	3 459	2 019	415	28	952	6.2%
Kwun Tong	6 302	2 927	2 929	3 476	432	42	556	9.1%
Wong Tai Sin	960	1 210	1 557	606	201	25	357	4.9%
Sham Shui Po	284	5 286	3 578	3 291	2 963	34	1 200	5.3%
Yau Tsim Mong	1 482	10 334	4 172	3 031	4 653	50	1 161	6.0% (Yau Tsim) 3.0% (Mong Kok)
Sha Tin	4 693	9 608	1 018	766	922	25	711	3.4%
Tai Po	13 500	389	780	591	754	40	344	4.5%
North	1 667	449	1 119	580	380	35	485	1.6%
Kwai Tsing	1 305	2 672	395	768	234	42	295	4.6%
Tsuen Wan	3 009	4 716	1 125	1 767	186	42	311	5.2%
Tuen Mun	4 811	2 015	465	371	46	38	458	1.7%
Yuen Long	4 685	1 767	1 554	1 490	49	42	776	4.8%
Sai Kung	7 580	1 239	432	210	183	30	372	2.3%
Islands	680	2 601	1 173	241	384	30	359	5.3%
Whole territory	98 322	68 490	30 259	23 727	12 963	633 [^]	11 329	4.2%

[^] Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 325 in number) are not included in the breakdown.

District	2020							
	Number of poison treatments of rodent infestation in building blocks	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	RIR
Central and Western	4 752	5 058	2 006	1 626	193	25	826	2.2%
Eastern	19 813	2 895	2 245	1 313	171	40	872	7.4%
Southern	3 641	1 118	647	492	65	28	172	3.0%
Wan Chai	13 184	4 085	1 302	2 081	816	38	881	1.8%
Kowloon City	4 608	13 393	2 753	2 054	343	35	929	4.4%
Kwun Tong	6 016	4 107	3 848	4 357	325	45	517	4.5%
Wong Tai Sin	832	2 234	1 305	1 507	134	30	245	1.2%
Sham Shui Po	270	4 850	3 254	4 173	2 654	40	844	2.4%
Yau Tsim Mong	2 685	11 586	6 383	4 538	4 729	50	1 088	7.4% (Yau Tsim) 3.0% (Mong Kok)
Sha Tin	5 060	9 679	1 118	737	956	32	506	6.0%
Tai Po	13 260	419	771	589	503	40	384	6.4%
North	1 701	470	1 102	580	100	35	394	2.5%
Kwai Tsing	1 296	3 086	469	753	295	47	384	3.2%
Tsuen Wan	2 981	5 212	1 034	1 837	324	42	383	5.6%
Tuen Mun	5 274	2 023	548	321	85	43	380	2.0%
Yuen Long	5 314	7 263	1 520	1 449	18	45	928	3.0%
Sai Kung	8 672	1 737	521	226	254	35	400	1.5%
Islands	742	2 615	1 162	239	382	28	198	1.4%
Whole territory	100 101	81 830	31 988	28 872	12 347	678*	10 331	3.6%

* Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 292 in number) are not included in the breakdown.

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