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PRELIMINARY RODENI CONTROL PROGRAM IN BANDAR ABBAS SOUTHERN IRAN 1984

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ABSTRACT

A general rodent control program was carried out in Bandar Abbas in the Persian Gulf (15 Sep-22 Oct 1984). Researches on the variety of the rodents and their parasites were done and Zincphosphide and Comatetralil baits were used for in-doors and out-doors.
Results obtained showed that this campaign was successful.

INTRODUCTION

The city or Bandor Abbas is the capital or the province of Hormozgan in the Hormoz channel. It has a popula-

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tion of 219644(acording to 1986 census). This city covers an area of 3200 hectares of the coastal plain, with a maximum altitude of 5 metres above the sea level, the climate in the city and surrounding areas is tropical, and the temperature in summer may reach 40°C and may go down to 10-12°C in winter. The humidity is high and varies between %35-%93, depending on the season, with 75% of the year having a high humidity level.

We had received numerous reports and complants about rodent infestation in this city and local treatments could not be sufficient.

INFESTATION FACTORS:

Surveys have shown that some factors are affective in this high population of rodents.

1- Refuse collection, transportation and disposal is not in hygienic condition.
2- Avalibility of Foods, such as grain that falls from lorries along the port-roads and even rosds inside the city.
3- Non sanitized and rodent proof ware houses and food stores etc....
4- Lack of education in rodent control.
5- Disposal of waste water in many parts of the city is not hygienic.

RESEARCHES

Before starting the campaign, the variety of rodents

of this area and their endoparasites and ectoparasites were identified. The main species in the urban area were Rattus rattus and Mus musculus, and in the surroundings of the city were Tatera indica and Gerbilus nanus,Ninety percent of hunted rodents were infected by intestinal helminths as shown in Table 2 and all samples were negative for plague, Murinetyphuse and Tularemia.

MATERIALS AND METHODS

The rat control operation was divided in three phases:
1- Preparation. 2-Implementation. 3- Maintenance.

1- The preparation involved susceptibility testing on the samples of rodents of the area to choose Rodenticides, producing the baits, giving technicians and helpers the especial training, informing the public through T.V. and radic about the campaign, and requesting for their cooperation and also arranging an execute organization for the campaign.

2- The Implementation phase:

All houses, Stores, Schools, governmental buildings, hospitals, parks, around the streets and roads and unutilized lands etc..... were treated by poisoned bait. Poisoned baits consisted of about 15 grams of wheat containing 2/5% zincphosphide and put in rodent burrows and after baiting all burrows, were closed 100 gr poisoned bait of Comatetralil-were put Inside buildings, (Racomin in a disposable dish were set in rat run-ways,

in corners, near burrows and holes.

The characteristic of teams were as follows.A- Bait preparator teams (one technician and 4 workers).
b- Rodent controllers consist of 25 teams for treating outdoors and indoors (each team consist of one technician as responsible and 3-4 operators equipped with a vehicle).

The quantity of poisonous bait used by the teams for treating outdoors was 25000 Kgr of zincphospied and for indoors (houses, hospitals food establishment-schools etc....)-it was about 14000 Kg. of Comatetralyl bait
C-Public cleansers: These teams collected dead rodents and either buried or burned them.

3- In maintenance phase, there are two control teams located in Environmental Health Division in Bandar Abbas for treating reinfestations.

RESULTS AND DISCUSSION

Surveys and evaluations before and after control as shown in Table 1 were as follows:

Indoors

-Number of chosen places for trapping=10
-Number of traps,=200
-Abundance of hunted rodents before control= 10/4.
-Abundance of hunted rodents 10 days after control,=1.7
-Abundance of hunted rodents after 6 months=0.4.

These results showed that the above mentioned techniques were effective for the control of rats and mice,

and decrease of the population after six months in addition to activity of maintenance teams, also might be due to training of residents through the campaign so they were able to treat locally.

Outdoors

Number of chosen places for trapping =11

Number of traps = 220

Abundance of hunted rodents before control=5.2

" " " " 10 days after control=0

" " " " 6 months " " =0/2.

Results obtained showed that the method was very effective to destroy rodents in the treated area, but because infestation factors remain, the population of rodents are increasing.

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Table 1-Researches and evalution of rodent control in Bandar Abbas(1984)

	Abundance of hunted rodents before control	Treated area	Rodenticide	Quantity of rodenticides	Quantity of Poisoned bait	Abundance of hunted rodents after control	
						10 days	6 months
Outdoor	5.2/Place	5500 Hect.	Zincphosphide	1100 Kgr.	25000 Kgr.	0	0.2-Place
Indoor	10.6/Place	Number of Places 43845	Comatetrailil	2.25 Kgr.	14000 Kgr.	1.7	0.4-Place

Table 2- Prevalence of intestinal helminths in rodents of Bandar Abbas.

	Percent infected with		
	ASCARIS	Trichostrangylus	Moniliformis
Rattus rattus	50	67	68
Rattus norvegicus	50	45	
Mus muscolus			45
Tatera indica		33	14