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The Use of Traps in Rodent Control

The use of traps is one of the methods in containing rodent problem through immediate suppression of rodent population. Traps, in general, are safe to be used in areas where rodenticide treatment is not suitable. They provide quick results when rodent infestation is minor and disperse. They also allow immediate disposal of rodents and hence odor problem arising from dead rodents in relatively hidden areas can be avoided. However, the placement of traps can be laborious and time consuming for heavy rodent infestation. All the live rodents trapped must be removed as soon as possible and the locations of the traps must be changed so as to interfere with the memory of the rodents which are still around. Some rodents are wary of new objects, so they will not come into contact with the traps or they have to spend a very long time to become less wary. Hence, trapping is not the first choice in the elimination of rodents.

The rodent trapping tools on the market include wire cage traps, break-back / snap traps and glue traps.

Wire cage traps are made for capturing live rodents. They should be baited and set perpendicularly to vertical surfaces, e.g. wall, with opening facing the surface. The trigger should be set lightly so that it will spring easily. Rodents trapped in traps can be killed humanely by breaking the neck of the rodent with quick close of the door of the cage trap.

Break-back traps can provide instant kill for rodents. They should be placed at right angles to the vertical surface, against which rodents are known or suspected to run, with the treadle nearly touching the surface to intercept rodents coming from either direction. Baits can be used with traps to increase the trapping effectiveness.

Glue traps catch and hold rodents attempting to cross them by the adhesive materials on the traps. They can be placed along walls where rodents travel. Glue traps lose their effectiveness where there is excessive dirt, dust or water unless properly covered. Besides, humidity and air temperature affect the tackiness of the adhesive. Rats are capable of escaping if not all their feet are on the glue. In addition, when rats are partially captured by glue traps, they may drag the trap around for some time before dying. Hence, glue traps are not commonly used, particularly against large rodents.

The following points should be noted when carrying out rodent trapping:

- lay as many traps as possible at the same time to enhance the trapping result;
- wear protective clothing (such as gloves, mask, etc.) and handle traps with care to avoid getting injured;
- alert people in the premises of the trapping exercise;
- handle traps carefully where children, pets or non-target animals can contact them;
- check the sensitivity of the trap before setting;
- remove all food sources for rodents in the premises to increase the attractiveness of the bait in the trap;
- replace fermented or decayed bait with fresh bait; and
- disinfect traps or any items contaminated by rodents with general household disinfectant after the trapping exercise.



Appointment of pest control company is recommended for provision of professional and safe services on trapping rodents.

Leung Mei Yee, Pest Controller

Fleas

Fleas are pests of humans as well as ectoparasites of domestic animals and rodents all over the world. While most fleas prefer non-human hosts, many can feed readily on humans when infestations are heavy or other hosts are not available.

Fleas are small wingless insects with bodies laterally compressed to facilitate their movements between hairs or feathers of their hosts. It is rather difficult to remove fleas by shaking or scratching because they have numerous backwardly projected bristles. Their mouthparts can pierce the skin of their hosts. Fleas also have long and powerful legs and can jump with their hind legs 25 cm high and 35 cm horizontally. This enables them to move onto the bodies of animal hosts passing by.

All fleas are terrestrial. They undergo complete metamorphosis with egg, larval, pupal and adult stages. Adults of both sexes feed readily and repeatedly on blood of animals, humans and birds, but they may survive a long period of starvation. Fleas are attracted to their hosts by warmth and odour. The nests of the hosts are the normal breeding places of all stages of fleas.

Fleas of Importance

The Oriental Rat Flea (*Xenopsylla cheopis*) is responsible for the spreading of several diseases such as plague and murine typhus. They normally spend most of their adult life on Norway rat (*Rattus norvegicus*) and roof rat (*Rattus rattus*). However, when these rodents are killed, fleas will leave dead rodents for new sources of blood meals and bite man readily. Therefore, flea control should be conducted in line with rodent disinfection program if necessary.

The Cat Flea (*Ctenocephalides felis*) and Dog Flea (*Ctenocephalides canis*) occur inside and around premises where cats or dogs are kept. These fleas habitually bite human in addition to their normal hosts.

The Human Flea (*Pulex irritans*) and Sticktight Flea (*Echidnophaga gallinacea*) are other importance species of fleas but they are uncommon in Hong Kong.

Actions that can be taken to prevent and control fleas are:

1. Control of host animals such as eliminating rodents, keeping pets in good hygiene;
2. Vacuum cleaning of floor, carpets, etc to clear away all eggs, larvae and pupae;
3. Avoid keeping disused articles;
4. Use of repellents to avoid flea bite; and
5. Spraying of insecticides with residual effect to reduce the number of adult and larval fleas as a supplement to the environmental control measures.



Oriental Rat Flea (Xenopsylla cheopis) Adult



Cat Flea (Ctenocephalides felis) Adult



Oriental Rat Flea (Xenopsylla cheopis) Larva