

Pest Control Newsletter

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Occupational Health and Safety for Pest Control Operators

Pest control operators often work in different places like offices, factories and food premises and during their work, they may face various safety and health hazards including 1) pest attack; 2) intake of pesticides; and 3) contraction of diseases.

Pest attack

In the course of pest survey and pest disinfestations, pest control operators are prone to attacks by pests such as biting by rodents, fleas, ticks and mosquitoes, and also stings by wasps.

For avoiding attacks by rodents, long pliers can be used to fetch caught rodents. Thick and loose long-sleeved overalls, gloves and beekeeper's veil should be put on for protection against attacks by wasps. Officers not taking part in wasp disinfestation operations should stay away from the nest or remain indoors. Avoiding the application of perfume or scented soaps and wearing brightly coloured or patterned clothing would reduce one's attraction to wasps. For preventing mosquito bites, one should put on clothes in light colour and apply insect repellent containing DEET (N, N-diethyl-metoluamide) on his clothes and skin. Insect repellent containing DEET is also effective in protecting against attacks by fleas and ticks.

Intake of pesticides

Pest control operators may have to apply pesticides during their work and accidental intake of pesticides can be through inhalation, dermal and oral exposure. Exposure to excessive pesticides may lead to acute poisoning, chronic poisoning or allergic reactions. Pesticides can also damage the eyes and skin directly.

To prevent pesticide poisoning, the proper procedures for preparing and applying pesticides should be strictly followed. Personal protection equipment, including respirators, coveralls, goggles, rubber gloves, safety boots, etc. have to be put on for

protection of the body. Equipment for pesticide application has to be well maintained and regularly checked on their conditions to ensure no leakages or spillages of pesticides.

Contraction of diseases

Pest control operators are more susceptible to pest-borne diseases, like Hantaan Fever, Murine Typhus, Spotted Fever, Leptospirosis, Malaria and Dengue Fever, as they need to conduct frequent visits to pest-infested places in performing their work. The excretions of rodents, fleas and ticks may carry disease causing microorganism. Inhalation of dust with flea and rodent excrement or exposure of wounds to such dust can therefore cause diseases. Flea, tick and mosquito bites also spread diseases such as Murine Typhus, Spotted Fever and Dengue Fever respectively.

During pest disinfestation work, light coloured and long-sleeved clothing as well as personal protective equipment such as rubber gloves, boots, aprons, protective respirators, etc. should be put on. Besides, disinfestations of fleas should also be carried out at the same time with anti-rodent work when there is evidence of

flea infestation at the site. Moreover, insect repellent should be sprayed on clothing or exposed skin as necessary. Direct skin contact with the pests should be avoided. Wounds on our body should be covered with water-proof sterilized dressing before carrying out pest disinfestations. Finally, medical consultation should be sought as soon as sign of illness is found. The doctor should be clearly informed of the nature of work of the officer especially the environmental conditions of the sites he/she had visited recently.



Full-face respirator



Coverall

More information on pest prevention and control can be obtained from other pages of our website

Applications of Integrated Pest Management

Some insects, rodents and birds cause harm to the health, welfare, property and comfort of human. These animals are considered as the major pests of the world. Many pest control methods are available, but the concept of Integrated Pest Management (IPM) was firstly evolved to control pests of economic importance using combined suitable methods. The change in concept of IPM over time and the variation in emphases by different users led to many different definitions of IPM.

In the 1980s, the concept of Integrated Vector Management (IVM) was developed, based on the principles of IPM in controlling economic pests, and applied in the field of vector-borne disease control. The IVM is an evident-based approach, in which initial assessment of the vector situation is needed before control actions would be taken. The concept not only emphasizes on the use of environmental management, pesticides and biological ways to control the vector in concern, but also requests the adoption of personal protection and the provision of training and education to achieve the task. In the course of managing the vector, environmental management and personal protection should come in the first place, followed by biological control, while the use of chemicals should be regarded as the last resort.

The concept of IPM is not restricted to the control of disease vectors. It can also be applied in other pest problems, such as:

- prevention and control of wood-destroying insects (e.g. wood-boring beetles, termites) which damage our wooden fixtures and furniture, causing property loss.



Minthea rugicollis (Hairy powderpost beetle)
鳞毛粉蠹 : both adults and larvae feed on dried wood materials throughout the year.

- prevention and control of stored product pests (e.g. beetles, moths) which damage and contaminate our food, rendering them unfit for human consumption.

Sitophilus oryzae
(Rice Weevil)

米象 : both adults and larvae can damage a variety of grains, including rice, by feeding on the grain kernels.



- prevention and control of fabric-destroying insects (e.g. clothes moths, carpet beetles) which damage cotton, linen, silk, fur, feather, animal skin, etc., causing economic loss.
- prevention and control of bird pests which can transmit diseases, contaminate our food, soil structures, cause nuisances and present hazards to aircrafts.
- prevention and control of horticultural and plant pests (e.g. beetles, mites, flies) which feed on leaves, stems, roots, flowers by sucking, chewing, mining etc., causing damages to the plants.

A successful IPM/IVM can be achieved through coordinated efforts taken at the field and policy levels. At the field level, the personnel need to be aware of the importance of IPM/IVM, improve his/her knowledge and understanding of the biology of the vectors, so as to identify opportunities for IPM/IVM strategies in a particular environmental setting/case. On the other hand, policy makers should assess how the present policies support or obstruct IPM/IVM activities and identify changes in policy that would support IPM/IVM better.

After all, it is important to coordinate and to limit the use of pesticides in different sectors of pest control, as indiscriminate use of pesticide in other areas may lead to the development of resistance in disease vectors, making the control of the vectors more difficult and ineffective.

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