

APPENDIX 6: MOSQUITOES

MANAGEMENT AND CONTROL OF MOSQUITOES

1. GENERAL INFORMATION

Mosquito bites cause a skin irritation through an allergic reaction to the mosquito's saliva - this is what causes the red bump and itching. But a more serious consequence of some mosquito bites may be transmission of serious diseases and viruses such as malaria and which can lead to disabling and potentially deadly effects (such as encephalitis, meningitis and microcephaly).

Mosquitoes have a four-stage life cycle (egg – larva – pupa - adult) and different species of mosquitoes prefer different types of standing water in which to lay their eggs. The presence of beneficial predators such as fish and dragonfly nymphs in permanent ponds, lakes and streams help keep these bodies of water relatively free of mosquito larvae. However, portions of pans, swamps, wetlands and temporary pools and puddles are all prolific mosquito breeding sites.

2. MANAGEMENT OF MOSQUITOES

2.1. MECHANICAL CONTROL / PREVENTION

To control mosquito populations and help prevent the spread of diseases they can carry, learn how to prevent mosquitoes by:

- Removing mosquito habitats
- Getting tips on how to prevent mosquito exposure; and
- Using mosquito repellents to protect against mosquito-borne illnesses.

Since many mosquitoes breed in standing water, source reduction can be as simple as emptying water from containers around the home. Mosquito breeding grounds can be eliminated at home by removing unused plastic pools, old tires, or buckets;

by clearing clogged gutters. Eliminating such mosquito breeding areas can be an extremely effective and permanent way to reduce mosquito populations without resorting to insecticides.

2.2. CHEMICAL CONTROL

2.2.1. LARVICIDES WATER TREATMENT:

Only *Bacillus thuringiensis var israelensis* (BTI) may be used to suppress and control mosquito larvae in open water.

2.2.1. INSECTICIDES FOR SURFACE AND SPACE TREATMENT:

Only ***pyrethrins*** and ***pyrethrins/imidacloprid*** combinations may be used indoors as surface sprays unless resistance to ***pyrethrins*** becomes a problem. If so, only ***malathion*** may be used until the resistance is under control. Only ***pyrethrins*** (with ***piperonyl butoxide***), ***diethyl toluamide*** and ***citronella oil*** may be used as space sprays (aerosols) and in automatic dispensers.