

Group 4 – Insect Pests**MOSQUITOES (Nuisance)**

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Monitoring Season

All season (April – October)

Control Season

All season (April – October) for pesticide control activity

Rating

Insect pest

Hosts and Damage

- Nuisance to people and livestock
- Several species are persistent biters and good fliers
- Some health risks e.g. West Nile virus

Physical Characteristics

- Larvae are elongate, soft-bodied, dark-coloured, 5-10 mm long, with a head, swollen thorax and cylindrical abdomen that hatch in standing water. Larvae have a breathing tube at the end of the abdomen through which they breathe at the water surface. They “wriggle” from the surface to hide under leaf matter and other material when disturbed.
- Pupae are comma-shaped

Biology

- Spring mosquitoes have one generation per year; overwinter as eggs deposited around margins of slough, above the water line in ditches or in depressions in grassy terrain that are subject to flooding due to snowmelt or rainfall
- Summer mosquitoes can have up to four generations each season; overwinter as mated females eggs hatch only when immersed in warm water
- Both spring and summer groups go through the following growth stages: egg, four larval instars, pupa and adult

Why Manage

- Requires establishment of control locations
- Public perception and complaints; control spread to private property
- Control spread from private property
- Reduced recreation opportunities and use of parks
- To maintain native species balance and variety (biodiversity)
- To establish tolerable levels of damage; prevent reduced use of parks

Monitoring Procedures

- Pre-control monitoring
- Post-control monitoring
- Spot checking

Control Procedures (Monitor and control)

- Physical/mechanical: None used at present
- Pesticide: Microbial product *Bacillus thuringiensis israelensis* (Bti) (granular application using hand held spreader)
- Biological: None used at present



A



B



C



D

A) Mosquito larvae have four growth stages; the second and fourth stages are noted here. B) An adult female mosquito feeding; blood in its abdomen provides nourishment for eggs. C) The microbial insecticide *Bacillus thuringiensis israelensis* (Bti) is used to control mosquito larvae. D) Staff in personal protective equipment apply Bti to a variety of wet areas that produce mosquito larvae, controlling them before they emerge as adults.