

Mosquito

Management

An initiative of Health & Regulatory Services



Introduction

Mosquitoes are annoying insect pests which have the potential to carry diseases such as Ross River Virus, Barmah Forest Virus and Dengue fever.

There are more than twenty-five (25) common species of mosquitoes in North Queensland with many capable of transmitting disease. Mosquitoes need water and a small amount of nutrients to breed. During hot humid conditions, eggs can develop to mature adults within a week and adults can live for one to four weeks.

Mackay Regional Council's Vector Management Unit aims to keep mosquito populations in the region to acceptable levels through various forms of treatment and control.

Council also seeks information from the public in reporting any breeding sites observed. Your assistance and regular maintenance in the yard can help in the eradication of certain potential disease carrying mosquitoes.

Mosquitoes

Mosquitoes have the ability to breed in any type of water such as saltmarsh, freshwater swamps and polluted water. Some species can breed in drains, artificial containers and certain plants.

Only the female bites, requiring a blood meal for egg development. Males feed on nectar from plants. A single female mosquito can lay between two hundred (200) and four hundred (400) eggs within a two to four week cycle.

Container Breeders (The *Aedes aegypti*)

The *Aedes aegypti* mosquito can be found in Mackay backyards in artificial containers such as plastic containers, pot plant bases, birdbaths, tyres, poorly maintained guttering, rainwater tanks and natural breeding places such as tree hollows and bromeliads.



Photo: Water in palm fronds produces a breeding site for mosquitoes.

The mosquito has a limited flight range of up to one (1) kilometre (usually only travel 50-100 metres) and is referred to as an indoor day time biter.

Aedes aegypti may transmit the potentially fatal disease, Dengue Fever. Typical symptoms of Dengue Fever can include fever, severe headaches with pain behind the eyes, muscle and joint pain, loss of appetite, fatigue and skin rash.



Photo: Water in old tyres produces a breeding site for mosquitoes.

You can help to eliminate this mosquito by:

- Disposing of all containers and other items collecting water in which mosquitoes can breed.
- Empty all containers such as flower vases, bird baths and other receptacles containing water at least once a week. Wipe internal surfaces of receptacles to remove unhatched eggs from the side of the receptacle. Remove pot plant bases or fill bases with sand.
- Screen all opening to tanks, wells or other large water containers with 1mm mesh.
- Overturn boats, canoes and dinghies, or have drain plugs removed to avoid holding water.
- Fill water-holding cavities in trees with soil. Plants that hold water, such as bromeliads, should be regularly flushed using a pressure hose.
- Clear guttering and downpipes of debris to prevent the pooling of water.
- Trim branches overhanging roof gutters.

Open Territory Mosquitoes (Non container breeders)

The Mackay Region is surrounded by areas suitable for mosquito breeding.

Saltmarsh Mosquitoes

Certain species of saltmarsh mosquitoes are responsible for the transmission of the Ross River Virus, along with Barmah Forest Virus, while others are predominantly nuisance species.

In Mackay high tides and heavy rains cause inundation (flooding) of low lying areas increasing the potential for mosquito breeding.

Freshwater Mosquitoes

Freshwater mosquitoes may breed in any low lying area or drain containing water. The water may be clear and fresh or highly polluted as certain species favour clean water while others prefer polluted sites.

Similar to the saltmarsh mosquitoes, some freshwater breeders are capable of transmitting diseases such as Ross River Virus and Barmah Forest Virus, whereas others only cause nuisance. These freshwater species can cause problems following heavy rains often in open low lying areas. Water bodies that are more permanent in nature often support a number of fish capable of effectively controlling mosquito larvae, without the need for chemical treatments.

Council's Program Role in Mosquito Management

Mackay Regional Council operates a Mosquito Management Program that aims to control mosquito numbers to acceptable levels by targeting major saltwater and freshwater areas.

The main method of control adopted by Council is larviciding. This form of treatment focuses on the destruction of the mosquito while it is still in its larval (aquatic) form, rather than the adult stage which is more difficult to control.

Larviciding involves the use of environmentally friendly biological based insecticides, BTI and methoprene. These insecticides target specific to mosquitoes and have no toxic effects on other wildlife such as fish and birds, or to the environment.

Treatments are carried out using land based equipment including quad bikes, ATV and spray trucks. Aerial application is also carried out using helicopters.

Mackay Regional Council also relies on home occupiers to control mosquitoes around their homes.

For further information phone 1300 622 529 or visit council's website - mackay.qld.gov.au



Photo: Aerial application