

Environment Information Sheet

DARWIN INTERNATIONAL AIRPORT

Mosquito surveillance and control



Aedes albopictus

Photo: www.invasive.org

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Some mosquitoes found in and around your workplace can transmit diseases such as Ross River virus (RRV), Barmah Forest virus (BFV) and possibly dengue fever. Mosquitoes can also give dogs heart worm.

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The Northern Territory has a number of native mosquito species that can transmit RRV and BFV, but is generally regarded as free of the vectors of dengue. The major concern for the NT is the importation of two mosquito species in particular; the dengue mosquito *Aedes aegypti* and the Asian tiger mosquito *Aedes albopictus*. Both species are capable of transmitting dengue and chikungunya. Recently (Nov 2011) *Ae. aegypti* was detected as an established population in Tennant Creek and an elimination program is currently in place. *Aedes albopictus* is not present in the NT. *Aedes aegypti* and *Ae. albopictus* are present in our neighbouring countries such as Timor Lesté, Indonesia, Papua New Guinea, and SE Asian and Pacific Nations. The former species is also present in North Queensland and the latter in the Torres Strait.

THERE IS A RISK OF THESE SPECIES BEING INTRODUCED INTO THE NT. IF WE PREVENT THEIR ENTRY, WE PREVENT DENGUE FEVER.

These two mosquito species have characteristics that make them very successful travellers. They lay eggs just above the waterline in anything that can hold water. Breeding locations can be indoors or outside e.g. self-watering pot plants or plant drip trays, old rim-less tyres, buckets and discarded items. Their eggs are drought tolerant and can survive dry periods for several months, hence allowing them to be relocated easily. The eggs hatch when submerged in water and the larvae progresses to the pupal stage then emerge as adults. They can then begin to disperse and colonise other water holding receptacles after having found a blood meal.



Vases, drip trays and plant striking receptacles attract egg-laying mosquitoes.

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**Department of Agriculture,
Fisheries and Forestry**
Biosecurity



Humans produce a variety of receptacles that these mosquitoes thrive in. Tyres are one of the most favoured egg laying places, but anything that can hold water is suitable, e.g. parts of machinery, plastic wrapping, tarpaulins, construction material..... anything!



Tyres are a favorite harbourage and egg-laying location.

Keeping areas clean reduces the number of breeding sites available for exotic mosquitoes to lay their eggs.

By simply cleaning up items that can hold water or emptying out receptacles in and around your workplace on a weekly basis, you can help stop mosquitoes from establishing. Keep your workplace safe!

Under the *Workplace Health and Safety Act* employers have a responsibility to provide a safe work environment.

If your work area is free of old tyres and drums and anything that can hold water, the mosquito will not find a place to lay eggs.

TIPS TO SAFEGUARD AGAINST BREEDING MOSQUITOES

- All receptacles capable of holding water (tyres, tins, jars, buckets, equipment etc) should be stored under cover.
- All rubbish capable of holding water should be disposed of regularly.
- Receptacles exposed to rain should be treated with residual insecticide – call Department of Agriculture, Fisheries and Forestry Biosecurity (DAFF Biosecurity) or The Medical Entomology unit (ME) of the Department of Health for advice.
- Any tyres necessary for reuse should have multiple drain holes and be positioned to facilitate water drainage.
- Be aware of and maintain (underground) drainage.
- Ensure roof guttering is unblocked and drains freely.
- Empty pot plant trays or fill with sand.

DAFF Biosecurity conducts three ground surveys per year to identify possible mosquito breeding sites. These surveys are conducted just prior to the wet season, during the wet season and just after the wet season has finished.

ME and DAFF Biosecurity collaborate closely to prevent the importation and establishment of these exotic mosquitoes. ME and DAFF Biosecurity have special egg traps placed around airport areas and inspect these weekly. The eggs collected are reared to ensure there are no exotic mosquitoes present. Special adult mosquito traps are also set weekly.

Remember mosquitoes can breed in and around **YOUR** work place.



Blocked drainage sumps and access pits need periodic maintenance.

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