

Disease vectors—stopping them getting a free ride

AQIS fact sheet

A disease vector is an insect that carries a disease producing micro-organism from one host to another. The most common human health vectors are mosquitoes, which are capable of introducing human and animal diseases that currently do not exist in Australia.

Diseases such as Malaria, Yellow Fever, Japanese Encephalitis and Dengue Fever cause death and ill health throughout numerous tropical and sub-tropical regions worldwide. Without a mosquito vector these diseases cannot be easily spread.

THE THREAT

There are hundreds of mosquito species inhabiting the earth. Only a few are active vectors of human disease. Those of the greatest significance to human health include;

- **Aedes aegypti** and **Aedes albopictus** prefer small quantities of fresh water, which they find readily around human habitation, and are vectors for Yellow and Dengue Fevers.
- **Anopheles** species breed in freshwater environments behind the mangroves and readily transmit Malaria.
- Species such as **Aedes vigilax**, **Aedes camptorhynchus** and **Culex annulirostris** prefer the salty mudflats around the mangroves and transit diseases such as Japanese Encephalitis.

Seaports provide ideal environments for the spread of mosquito vectors – AQIS regularly traps disease vectors.

WHAT IS THE RISK?

International traffic through seaports generates a significant risk to Australia. The greatest risk comes from the mosquito eggs of **Aedes Aegypti** and **Aedes albopictus** species. These are laid in small containers of fresh water such as tyres used as on board packing, machinery parts, fenders and any other part of a vessel able to hold fresh water (eg. pot plant bases or lids of paint tins). Cargo held on a wharf, awaiting shipment is also susceptible when rainwater pools.

Many seaports around the world lack basic sanitation. Seaports with accumulations of drums, tyres, machinery, or other receptacles capable of holding water constitute the highest receptivity risk.

AQIS REQUIREMENTS – WHAT YOU NEED TO DO

- ensure breeding sites do not exist aboard your vessel;
- treat with chlorine or dispose of water if mosquito larvae are observed;
- spray adult mosquitoes with a knock down insecticide; and
- report any sickness of passengers or crew, when submitting the Quarantine Pre-Arrival Report for Vessels (Pratique) form.