When reality bites

New South Wales and Queensland residents have been warned of the threat of viruses spread by mosquitoes, with a large number of the insects reaching their adult stage during the summer period.

"We are expecting very high adult mosquito populations to emerge," said Dr Jeremy McAnulty, NSW Health Communicable Diseases Branch Director "... and this, combined with high humidity and lots of rain, means more of these insects will survive."

According to NSW Health, the danger could last through to autumn.

In Queensland, the situation is worsening, with as many as 20 new dengue fever infections appearing daily. One patient in Queensland recently spent several days in intensive care after becoming infected. Cairns and Townsville have been particularly badly hit by the illness, with experts not ruling out some deaths occurring in the months ahead.

But there could be help at hand. Scientists from the University of Queensland have been working on finding a way to curtail the spread of dengue fever believe they may have made a breakthrough.

Writing in the journal Science, researchers said they could halve the insects’ lifespan by injecting them with a bacterium that is harmless to humans and other animals. Because this disease can only be spread by older mosquitoes the bacterium, if successful, could severely limit the mosquitoes’ capacity to transmit disease.

Doctoral student at the university, Conor McMeniman, used extremely fine needles to manually inject 10 000 mosquito embryos with the bacterium, before allowing surviving mosquitoes to feed on his own blood.

Head of the university’s School of Biological Sciences, Professor Scott O’Neill, said that if field experiments in northern Queensland were successful the new dengue control measure could be deployed not only in Australia but in other areas affected by the disease such as Thailand and Vietnam.

Dengue fever, however, is not the only threat facing NSW and Queensland. NSW Health has warned of the risks associated with Ross River and Barmah Forest virus diseases, two of the most common mosquito borne diseases found in Australia. Symptoms of these diseases, which can include rashes, fever and arthritis, can last for months, and there is no specific treatment currently available.

NSW Health urged people to avoid areas known to be infested with large numbers of mosquitoes and to limit outdoor activities at dusk when mosquitoes are most active. To avoid getting bitten, they suggested people wear long pants and long sleeved clothing where possible.

Screening windows, doors, water tanks and emptying anywhere where water builds up, such as pot plant saucers, guttering and tins, can also help avoid the risk of mosquito borne infection, they said.