

Buzz off!

Flies and buzzing mosquitoes. No Australian picnic is complete without them!



A new addition to the Australian Coat of Arms? Zipping flies, a painting by Australian artist Frank Little, 1974.

Insects are a part of Australian life. Not only are they irritating, some carry diseases such as dengue fever, Ross River fever and Japanese encephalitis. Controlling the carrier means controlling the disease.

EUREKA!



Douglas Waterhouse in an outdoor field laboratory at Lalapipi, mouth of the Lakekamu River in Papua New Guinea, where he tested a repellent for spraying over houses and onto mosquito breeding grounds.



Douglas Waterhouse would at times sit in a large muslin cage full of mosquitoes. He would have a different substance on each limb to test for an effective repellent.

Entomologist Doug Waterhouse was called into action during the Second World War. Australian troops faced battle in jungle environments where mosquitoes (and malaria) were rife.

Waterhouse was charged with finding a substance that stopped them from biting the troops.

He eventually hit on the active ingredients of what is now a commonly used **personal insect repellent**—Aerogard.

Applying insect repellent is now almost routine before many outdoor activities from camping and hiking to dinner on the outdoor verandah.

WHAT NEXT?

Insects also **attack crops and animals**.

Chewing and sucking their way through life, insects reduce crop yields and spread disease. We spend billions of dollars on control.

One sustainable way to control insects is biological control—using natural enemies of the pest.



Diamondback moths are a worldwide pest of Brassica vegetables such as cauliflower. Research is in progress to use a naturally occurring fungus to control the pest.



Australia's largest pecan farm, Stahmann Farms near Moree in NSW, had a problem with the green vegetable bug. After due process, a natural enemy from Argentina (a parasitic fly) was introduced and successfully cleared the farm of the bug.

By day, resting on the jungle floor you would find it absolutely peppered with these mosquitoes and, if at dusk you stood and waved a mosquito net round, you could collect one or two hundred mosquitoes every minute. It was really an excellent place for this sort of work.

Douglas Waterhouse, interviewed by Dr Max Blythe, Australian Academy of Science, September 1993