

# RESEARCH DIRECTIONS

## Oily End to Termites

**Associate Professor Robert Spooner-Hart and Dr Albert Basta from the Centre for Plant and Food Sciences are collaborating with research partner BioProspect to investigate a new oil-based product to repel termites.**

'In Australia and worldwide, termites can do thousands of dollars of damage to homes and natural forests', says Associate Professor Robert Spooner-Hart. 'Pesticides and physical barriers have been some-what effective in deterring or preventing termite attacks, however, current methods can be costly and many pesticides have toxic side-effects on other insect, animal or plant life, and can linger in the environment. Many previously effective termiticides have been banned for these reasons. Much work has recently been done to develop anti-termite agents from a compound called eremophilone, which is a natural oil-based product extracted from an Australian native tree. This project will comprehensively test the effectiveness and environmental impact of a new product made from eremophilone by our partners, BioProspect.

Using laboratory tests and field tests, Associate Professor Spooner-Hart and Dr Basta will determine the active constituents of the oil, and test these against termites as sprays directly on the termites, or as a residue or treatment on areas that termites later come into contact with. The effectiveness of the oil as a treatment on wood and other building material will also be tested, and research will also reveal the ways in which the oil works to kill, repel, or inhibit breeding of the termites. The oil and its by-products after use will also be examined for environmental toxicity, to see if there is a danger that residues may enter waterways or accumulate in soil, and what effect this might have in the long term.



In addition to providing BioProspect with valuable information about the production and effectiveness of their product against termites, this project will contribute to an environmentally sustainable Australia by providing builders, pest-controllers, and home-owners with a termite deterrent that is safe for them and the natural environment.

**Project Title:** The development of the plant extract AP778 (Eremophilone Oil) as a termiticide

**Funding has been set at:** \$1,147,000

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