Bio-Protection

*Bioprotection science for New Zealand*

# Do social insects signal health status?

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**Location of Project:** Bio-Protection Research Centre, Lincoln University

**Abstract:** Individually, social insects are particularly susceptible to disease. To combat diseases, bees, ants and wasps use hygienic behaviour, where sick and dead insects are thrown out of the nest. But how do they know what is sick? It could be they detect volatiles from infected insects, however, a recent study suggests instead that they signal "I'm alive" to stop being treated as sick. In this project the student will investigate changes in specific volatiles between health and diseased wasps or bees. Techniques of insect pathology, solid Phase Micro-Extraction and GC-MS will be used.