

Fighting Varroa mites with Entomopathogenic fungi

Optimisation of Fungal Bio-control Agent for Varroa Mite

The primary goal of this project is to develop fungal biological control agents (such as *Beauveria bassiana* and *Metarhizium anisopliae*) to combat the Varroa mite (*Varroa destructor*) by providing a sustainable alternative to chemical control methods.



The project aims to optimise fungal isolates and formulations, generate data on safety and efficacy for honeybees and hive products, analyse field trial results, and develop guidelines for integrating fungal biocontrol into IPM programs. A commercialisation strategy will also be developed to translate this research into a chemical-free pest control solution for use in Australia and globally

The expected outcomes include essential research and development toward a commercially viable biological control option as a much-needed additional tool for Varroa IPM. This approach will help reduce reliance on chemical treatments, addressing issues such as resistance, contamination, and negative effects on bee health.

The project benefits beekeepers, through providing a safer and more cost-effective pest control method, as well as agricultural producers through healthy pollinator populations. Consumers will benefit from more stable food production and potentially lower costs, while researchers and policymakers will gain valuable insights and guidance for sustainable Varroa management.

You can contribute to our research by collecting dead Varroa mites using a sticky board and sending them to us. This will allow us to isolate entomopathogenic fungi associated with Varroa and screen them for their suitability as biological control candidates. Your contribution will also help us understand the distribution of these fungi and identify the most effective strains for Varroa control in Australia.

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The project is funded through Hort Innovation Frontiers with co-investments from Macquarie University and contribution from the Australian Government.

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