



Horticulture

Protecting the coffee industry from Coffee Berry Borer in Papua New Guinea and Australia



Overview

Coffee is one of Papua New Guinea's (PNG) most important crops, and is a major source of income for more than 2.5 million people employed in the industry. Approximately 400,000 smallholders grow 85% of the 60,000 tonnes grown in the country each year.

Until recently, PNG was free of coffee berry borer, the crop's most serious pest, but it is now present in the highlands' coffee production areas, and is threatening the livelihoods of millions of rural families and their communities. The coffee berry borer is not currently present in Australia, but poses a significant biosecurity threat.

KEY FACTS

ACIAR Project No. HORT/2018/194

Duration: July 2019 to June 2024 (5 years)

Target areas: Papua New Guinea and Australia

Budget: A\$1,900,851

Project Leader

Dr Ian Newton, Queensland Department of Agriculture and Fisheries

Key partners

- PNG Coffee Industry Corporation

ACIAR Research Program Manager

Irene Kernot



Objective

The project aims to limit coffee berry borer damage and protect coffee industries by managing the existing problem with world's best practices, and to find long-term integrated pest management solutions.

The objectives are to:

- Deliver best management practices.
- Build institutional and farmer capacity.
- Deliver biological and chemical control solutions.
- Improve monitoring, cultural control and agronomic practices.

Expected scientific results

- Continued research into improved management of coffee berry borer and other coffee pests in PNG.
- Shared findings with other countries affected by coffee berry borer, to enable them to adapt, modify and continue similar research for the benefit of their own coffee industries.
- Improved knowledge and methods of coffee berry borer management. This will increase the capability of the Australian coffee industry, Australian Quarantine, Biosecurity and other organisations in detecting and/or preventing the introduction of coffee berry borer.
- Increased knowledge of potential biocontrol organisms that could be used to manage coffee berry borer, leading to minimised coffee losses and less pesticide inputs.
- Lessons from this project will place Australia in a better position to manage coffee berry borer, and continue research, if the pest does become established.
- Continued research into biopesticide development, within both tropical horticulture and other farming systems.

Expected impact/outcomes

- Development of integrated pest management systems will increase the knowledge and skills of scientists and extension staff on how to manage coffee berry borer and other pests.
- Farmers trained in the recommended integrated pest management packages.
- Minimised coffee losses, and less pesticide inputs.
- Farmers will have a greater understanding of trapping and monitoring techniques, in order to more accurately time pesticide applications and other management tools and manage the pest most effectively.
- Farmers will have a better knowledge of cultural control practices such as crop hygiene management and pruning techniques, which will lead to improved coffee berry borer control, as well as a better understanding of agronomic practices which will increase crop productivity and quality.
- Increased profits for coffee farmers due to increased productivity and reduced inputs.
- Engagement of women from smallholder operations in the delivery of integrated pest management training and demonstration farm management, which will enable them to have better control over their income and be more involved in coffee farming decision making.
- Reduced poverty among participating smallholder farmers and their communities.
- Skills developed by participating farmers to grow coffee and manage coffee berry borer, will also enable them to plant and grow other crops that will improve their overall nutrition.
- Increased incomes will provide access to better nutrition and medical care, improved food security, greater resilience to disasters such as droughts or other severe weather events, and improved education, particularly for girls and women.

