

An Integrated Management Response to the spread of Fusarium wilt of Banana in south-east Asia – Indonesia Phase



Key details

Location

Australia, Indonesia

Duration

Start Jan 2023

End Dec 2025

Budget

AUD 252,944

Commissioned organisation

Gadjah Mada University

Partners

Gadjah Mada University; Queensland
Department of Agriculture & Fisheries

Project Leader

Professor Siti Subandiyah

ACIAR Research Program Manager

Dr Sandra McDougall

Program

Horticulture

Project code

HORT/2022/178

Overview

This project aims to identify how management practices shape the microbiome and affect the susceptibility of bananas to *Fusarium wilt*.

The project will align closely with current activities in [HORT/2018/192](#), with similar activities being undertaken in Australia, Lao PDR, the Philippines, and Malaysia.

Fusarium wilt Tropical Race 4 (TR4) of bananas caused by *Fusarium oxysporum* f. sp. *cubense*, has become widespread throughout South-East Asia and is threatening smallholder banana production in Indonesia.

Confirmed cases of TR4 have also been reported in the main banana production region of north Queensland Australia. This project builds on the collective knowledge gained from over 30 years of *Fusarium wilt* research of banana and links to the current ACIAR project HORT/2018/192, *An Integrated Management Response to the spread of Fusarium wilt of Banana in south-east Asia*. The project brings together experiences from practical field research linked with high end analytical techniques to deliver outcomes to smallholder banana growers. Experienced gained and developed in Australia from working with banana growers and the use of in-field tools will be adapted for the Indonesia smallholder context and allow practical outcomes in the management of *Fusarium wilt*.



Expected project outcomes

- Determining the microbiome differences existing in current banana production systems.
- Developing farm management options for banana growers to reduce *Fusarium* wilt.
- Understanding grower networks, decision making, and providing inclusive decision support tools to manage *Fusarium* wilt of bananas.



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