

Management of pests and diseases of forest crops in Ethiopia



Key details

Location

Ethiopia

Duration

Start May 2024

End May 2029

Budget

AUD 2,900,000

Commissioned organisation

University of the Sunshine Coast

Partners

Ethiopian Forest Development; Forestry and Agricultural Biotechnology Institute; Institute for Commercial Forestry Research; University of the Sunshine Coast

Project Leader

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Program

Forestry

Project code

FST/2022/122



Overview

This project aims to develop and implement sustainable management for key insect pests and diseases of *Acacia*, *Eucalyptus* and *Moringa* in Ethiopia to strengthen and sustain livelihoods and forest enterprises.

Forestry plays a significant role in Ethiopia's economic and social development. Most forestry operations occur in rural areas, where more than 90% of the population resides. Many labourers are required for nursery operations and reforestation, while fuelwood production accounts for nearly 50% of forestry employment. Forestry also supports agriculture with acacia production in the Awi Zone contributing to soil amendment and improvement.

Technical capacity development and forest health and biosecurity awareness are critical to protecting tree production and forest health across Ethiopia. However, there is a lack of knowledge about the identity,

occurrence and damage caused by insect pests and diseases to tree crops, hindering the formulation of management responses. Forestry and plant protection officers have limited capacity to assist growers, leading to widespread damage, lost productivity, and in some cases, total crop loss.

An ACIAR-funded research activity, 'Management of *Acacia decurrens* pests and diseases in Ethiopia' ([FST/2021/162](#)) identified 3 main insect pests. However, the research discovered that the main agent threatening acacia is the plant disease, wattle rust *Uromycladium acaciae* (Pucciniales: Pileolariaceae), with severe epidemics at all the surveyed plantations across the Awi Zone. This was the first report of the wattle rust on acacia in Ethiopia, where there are currently no control options. As a result, production is under threat and farmers are unable to grow nursery seedlings or first- and second-year plantation saplings. The socioeconomic impacts along the value chain will continue to be significant if management options are not made available.

Objectives

- improve understanding of the impact of *Acacia* pests and diseases and develop management options to sustain production and livelihoods
- develop management options for key pests and diseases of *Eucalyptus* and *Moringa*, also important tree crops in Ethiopia, to support diversification and smallholder incomes
- develop smallholder and technical staff capacities to implement and scale-out management and report new pest and disease incidences to the responsible bodies.



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