

Faba bean in Ethiopia – mitigating disease constraints to improve productivity and sustainability



Key details

Location

Ethiopia

Duration

Start Dec 2018

End Oct 2024

Budget

AUD 1,972,214

Commissioned organisation

The University of Western Australia

Partners

Debre Berhan Agricultural Research Centre, Ethiopia; Ethiopian Institute of Agricultural Research; International Center for Agricultural Research in the Dry Areas; NSW Department of Primary Industries, Australia; The University of Western Australia

Project Leader

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ACIAR Research Program Manager

Dr Eric Huttner

Program

Crops

Project code

CIM/2017/030

Overview

This project aims to improve reliability, productivity, and profitability of faba bean production in Ethiopia.

Faba bean is the most important pulse crop in Ethiopia and has been grown there since antiquity. Farmers in the very highlands of the country focus on faba beans as it is one of the only crops that provide food, nutrition and incomes to poor small holder farmers.

The project is providing methodologies and germplasm to better manage Faba Bean Gall disease, a rapidly spreading disease causing devastating effects to crops in the designated region. Better management of the disease will result in lower production risk, reduced production losses, and a better return on labour and inputs.

This project could be the first phase of a broader longer term program supporting legumes in Ethiopia and potentially elsewhere in Africa.

Expected Project Outcomes

- Mapping the spread of Faba Bean Gall (FBG) disease in space and time, and identifying the conditions and the practices driving its spread and its impact on women and men farmers in Ethiopia.
- Identifying the causal agent of FBG, determining the diversity of the pathogen's isolates, and establishing the pathogen's life cycle, host range and spreading mechanism.
- Designing and evaluating disease management options using fungicides and cultural practices for FBG and other relevant faba bean pathogens.
- Identifying sources of genetic resistance to FBG and other relevant faba bean pathogens and introducing resistance into adapted faba bean lines.
- Establishing whether the FBG disease agent is present in Australia on faba bean or alternative hosts.



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