Sclerotinia stem rot of canola and pulses

Centre for Crop and Disease Management

GRDC GRAINS RESEARCH & DEVELOPMENT CORPORATION

Curtin University

Project description

The disease Sclerotinia stem rot (SSR) significantly threatens the profitability of Australian canola and pulses.

Building on their discovery of partial SSR resistance in 2019, our canola and pulse researchers are partnering with Australian breeders to develop the tools and techniques required to incorporate it into commercial canola varieties. In addition, efforts are now being made to identify lupin varieties with SSR resistance, which could be used to breed SSR resistance into lupin.

This collaborative effort between CCDM researchers and breeders aims to provide growers with improved canola and pulse varieties, helping them to increase their profitability.

Key achievements

We have identified several canola breeding lines with good levels of SSR resistance. These will be shared with breeders through established collaborative projects.

We have shown potential for predicting SSR resistance in breeding lines using a cutting-edge statistical technique known as 'genomic prediction'. Further research will improve statistical models to make more accurate predictions in breeding programs.

We have identified genetic variability that is strongly linked to SSR resistance in canola, which may be used for selecting plants in breeding programs.

Our team

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