

Pathogenic, genetic and molecular characterization and differentiation of races in *Colletotrichum truncatum* from lentil

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SPG Contributions	Project Status	Duration/Timeline of Project (Year to Year)	Co-funders	Total Project Cost
\$264,519.00	Completed	March 2007 – December 2012	Natural Sciences and Engineering Research Council of Canada	\$501,596.00

Project Description

To strategize the incorporation of certain resistance genes into specific lentil market classes in order to develop a long-term strategy for the deployment of durable resistance to anthracnose.

Outcome

This research confirmed that interspecific germplasm provides good resistance not only to race 1 of *C. truncatum*, but also to the more aggressive race 0, that, based on surveys, appears to be more prominent in the population of the pathogen. It was also shown that the risk of resistance breakdown is low, therefore the development of cultivars with resistance derived from these interspecific lines is a good investment in economic as well as ecological terms. This will result not only in reduced production costs (as a result of lower fungicide use), but will also contribute to the sustainability of the lentil crop.

Research Objective

OBJECTIVE 1

To strategize the incorporation of certain resistance genes into specific lentil market classes in order to develop a long-term strategy for the deployment of durable resistance to anthracnose.