
Using *Lens lamottei* to Transfer Anthracnose Resistance to Lentil Varieties

Jane Fiala, Monika Lulsdorf, Abebe Tullu, Bert Vandenberg

Department of Plant Sciences/Crop Development Centre, University of Saskatchewan,
Saskatoon, SK S7N 5A8

Abstract

Anthracnose is a serious fungal disease of lentil that can cause severe yield loss. It is now widespread in Saskatchewan and can be devastating in years with warm wet weather. Producers are limited to controlling this disease by crop rotation, foliar spray or development of varieties with resistance to anthracnose. Pathology research shows that we have two major strains of lentil anthracnose. Varieties like CDC Robin have resistance to one of the strains, but after exhaustive screening of cultivated lentil germplasm, no resistance was found to the second strain of anthracnose. One of the newly discovered wild species of lentil, *Lens lamottei*, has recently been discovered to have resistance to a combination of both strains of anthracnose when grown under field conditions in an inoculated disease nursery. The objective of this project is to determine if *L. lamottei* can be crossed with *L. culinaris* in order to transfer anthracnose resistance into lentil varieties.