

Review of *Colletotrichum lentis* races on lentil and polymorphisms in the IGS region of ribosomal DNA related to pathogenicity.

Dr. Lone Buchwaldt's research on *Colletotrichum lentis* began in 1990 as a Post Doc with Dr. Claude Bernier, University of Manitoba and Robin Morrall, University of Saskatchewan. Since lentil anthracnose was new to Canada, initial research focused on pathogen epidemiology, registration of fungicides, and a decision support system for growers. Buchwaldt joined Agriculture and Agri-Food Canada, Saskatoon in 1998. Here a web site called 'Pulse Crop Diseases' was developed for pathogen identification and best management practices. Simultaneously, Buchwaldt studied host-pathogen interaction and was the first to characterize two races of *C. lentis*. Subsequently, lentil germplasm with resistance to both races was identified as part of work done for the Canadian gene bank (Plant Genetic Resources of Canada). In 2015, she proposed a hypothesis that polymorphisms in the intergenic spacer (IGS) region of ribosomal DNA are associated with pathogenicity of *C. lentis* races. In addition, Buchwaldt leads a research team developing resistance to *Sclerotinia sclerotiorum* in canola using resistant *B. napus* germplasm or gene transformation which attracts attention both nationally and internationally.

