Impact of environmental variables on reaction of canola germplasm to inoculation with *Sclerotinia sclerotiorum*

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The objective of this project is to elucidate the relative importance of temperature and light on development of Sclerotinia stem rot (SSR) on canola plants. To this effect, the impact of three temperature levels was studied in relation to the response of six canola cultivars to infection by *Sclerotinia sclerotiorum*, causal agent of SSR. Seedlings of each cultivar were inoculated using the petiole inoculation technique when they were three weeks old and incubated at 15, 20, and 25 C under 12 and 14 hours light and dark conditions. Temperature had a significant differential impact on disease development, but the duration of the photoperiod did not. Lesion expansion and death rate across cultivars were significantly greater at 15 C than at 25 C, but no differences were detected between 15 and 20 C. Incubating plants at 25 C resulted in slower disease development and lower mortality rates than at cooler temperatures. Pioneer 44A89, was considered the most susceptible cultivar while Hyola 357 and Pioneer 46A76 were considered among the most resistant. Disease reaction among cultivars was consistent across the temperatures tested. We will continue evaluating the impact of light by increasing the length of the photoperiod.