

EVALUATION OF CANOLA CULTIVARS/ACCESSIONS
FOR THE INCIDENCE OF SOILBORNE PLANT
DISEASES, AND ISOLATION OF FUNGI
ASSOCIATED WITH THESE DISEASES

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SUMMARY

Soilborne diseases are one of the major constraints to both sustainability and expansion of canola production in the Western Cape. These diseases cause serious economical losses worldwide and annual yield losses of >20% have been reported. Little or no information about these diseases is available in South Africa, with only blackleg and *Sclerotinia* stem rot reported. In this study other soilborne pathogens i.e. *Fusarium avenaceum*, *F. oxysporum*, *F. solani* and *Pythium* spp. were isolated from root rot and related symptoms. *Leptosphaeria* sp. was most frequently isolated from crown rot and *Sclerotinia* sp. from water-soaked lesions. Both these diseases can result in serious losses due to premature shattering of seedpods, and pathogens remain in the soil for up to five years. Thus, managing these diseases through cropping practices such as sanitation is of utmost importance. Of the 20 cultivars/accessions evaluated at Langgewens and Tygerhoek, accession 54502 was in general more resistant/tolerant to crown and root rot. Cultivars Hyola 420 and Hyola 40L were most susceptible to soilborne diseases followed by accessions SR96279 and BNS96426. Variation in resistance/tolerance against root rot among cultivars/accessions recorded in this study should be verified under controlled conditions and repeated in field trials with artificial inoculation. The uneven distributions of soilborne pathogen inoculum under field conditions will undoubtedly impact on results obtained in this study.