POSTER SUMMARY

SOUR ROT: STUDIES ON THE PATHOGEN
PHAEOCYTOSTROMA SACCHARI AND THE DISEASE IT CAUSES

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Abstract

Sour rot, which is caused by the fungal pathogen Phaeocytostroma sacchari, was first reported in sugarcane in South Africa in 1998 and has become an increasingly common and important disease in the industry, particularly in the KwaZulu-Natal Midlands. In this study, isolation and culturing conditions for P. sacchari were optimised and screening methods for varietal resistance were developed. Varieties N31 and N39 were found to be the most susceptible of the five varieties tested. Sour rot surveys in 2010 and 2011 confirmed that the disease is favoured by extended dry periods and is less prevalent when rainfall is adequate in spring and early summer. Trials investigating the effect of nutrition on sour rot incidence and severity were inconclusive. However, the trials did indicate that the application of chicken litter might increase the risk of infection when cane becomes stressed.

Keywords: sour rot, Phaeocytostroma sacchari, sugarcane diseases, disease screening, pathogen isolation, disease survey