South African Sugarcane Research Institute

OPPORTUNITY FOR MSc STUDY

SASRI Crop Biology Resource Centre

Sour Rot in Sugarcane: What Influences its Development?

The Problem

Phaeocytostroma sacchari causes rind disease which is a common, usually minor condition affecting weakened sugarcane stalks. During periods of drought, particularly when cane is mature, rind disease may develop into sour rot, which can cause substantial losses in sucrose. The disease is becoming increasingly common in the Midlands North area and the only advice that can be given to growers is to harvest their cane as soon as possible to avoid further deterioration. Alternative management strategies may be possible once more information on the development of sour rot is obtained.

The Project

Since this disease tends to be of minor importance in most other countries, basic knowledge on the infection mechanisms and epidemiology of *P. sacchari* is lacking. During the course of this project we will investigate factors such as the stage at which cane is infected with *P. sacchari*, the stage at which symptoms become evident and the rate at which these symptoms develop through the stalk, the conditions that favour the development of sour rot and whether the fungus produces chemicals that degrade the stalk tissue to aid the rotting process. The information gained from this investigation will be used to formulate management strategies to reduce the damage caused by sour rot.

The Candidate

The ideal candidate must hold a BSc Honours degree in Plant Pathology. They must be skilled in standard laboratory practice and enjoy field / glasshouse work. Some experience in molecular techniques would be advantageous.

The Position

The successful candidate will be provided with a competitive bursary and a dynamic, well-resourced and friendly working environment. Though not an essential requirement, candidates seeking to secure free-standing NRF funding are encouraged to apply.

The Contact

A résumé and covering letter should be sent before 25th September 2009 to:

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Further information on the sugar industry may be accessed on http://www.sugar.org.za