

PHD STUDY OPPORTUNITY

CROP BIOLOGY RESOURCE CENTRE

Performance of sterilized *Eldana saccharina* adults in mating and cage trials: Further steps towards its control using Sterile Insect Technique

● The Problem

The sugarcane stalk borer *Eldana saccharina* (Lepidoptera: Pyralidae) is a continuing pest insect species in the South African sugarcane industry. In the development of an Area-Wide Integrated Pest Management (AW-IPM) strategy against it, increasingly more environmentally friendly pest control techniques are being developed, which are compatible with and sometimes increase efficacy of more conventional control measures. The use of Sterile Insect Technique (SIT) is one of these newer methodologies.

● The Project

A PhD study opportunity is currently available from April 2009 to March 2012 to help further develop SASRI's SIT programme in its AW-IPM approach against *E. saccharina*. At low doses of radiation (200 Gy) F1 male sterility in *E. saccharina* can be attained. Also, irradiated adults can be marked with no detriment to their biology. Because of the unique mating behaviour of *E. saccharina*, in which males in leks emit the pheromone to call females, the effect of radiation on this behaviour of males and females in the laboratory and in field cages will be investigated in this project before pilot field scale sterile males releases are made. In addition, the project will investigate the mobility of irradiated vs "wild" *E. saccharina* moths under laboratory conditions and when released into field cages to develop population monitoring techniques such as mark and recapture, using light, sticky and basic pheromone traps.

● The Candidate

The ideal candidate should hold an MSc degree in Entomology and/or Ecology and be enthusiastic about field work, SIT and insects and their population biology and ecology, and diligent in the application of bioassays. This is a team-orientated project and the ability to get on with others is essential.

● The Position

The successful candidate will be provided with a competitive bursary and a dynamic, well-resourced and friendly working environment based at SASRI. Candidates who have secured or applied for NRF funding are strongly encouraged to apply.

● The Contact

A resumé and covering letter, outlining why the candidate is suited to the position, should be sent as soon as possible to:

Dr. D.E. Conlong, Crop Biology Resource Centre, SASRI, Private Bag X02, Mt Edgecombe, 4300. KZN. South Africa. (des.conlong@sugar.org.za).