



**SOUTH AFRICAN
SUGARCANE RESEARCH
INSTITUTE**



**Unlocking the Potential
of Sugarcane**

For further information please contact Dr. Abraham Singels
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Send your applications with cover letter, detailed CV, publication list and contact details of three referees to:

applicants@sugar.org.za, stating the post that you are applying for.

Closing date: 13 November 2009 or until a suitable candidate has been identified.

Postgraduate student Sugarcane crop physiology

The South African Sugarcane Research Institute based in Mount Edgecombe near Durban seeks a postgraduate student to join an experienced team of researchers to conduct exciting crop physiology research in sugarcane.



Postgraduate student: Resource use efficiency of high biomass sugarcane for bio-energy production

(Jan 2010 to May 2013, Mount Edgecombe, stipend of ZAR 90 000 pa).

Resource (solar radiation, water and nitrogen) use efficiency of different sugarcane cultivar types aimed at the production of bio-energy and sugar production respectively, will be investigated in order to determine the feasibility of sugarcane production for bio-energy in marginal areas, and to provide guidelines for breeding and managing such crops.

The postgraduate student will comprehensively review current knowledge on the topic and conduct experiments to closely monitor and better understand the physiology of crop development, water uptake, radiation interception, structural growth, biomass partitioning and crop response to water stress.

Research outcomes will include chapters in a research report, publications in scientific journals and a Ph.D. thesis.

The ideal candidate will have:

- An M.Sc. in crop science, plant physiology, agronomy or related field.
- A good knowledge of crop physiology.
- The ability to (1) use instruments to measure crop, soil and atmospheric processes, (2) to quantitatively analyse crop experimental data and (3) to formulate concepts of crop response to environmental and genetic factors.

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