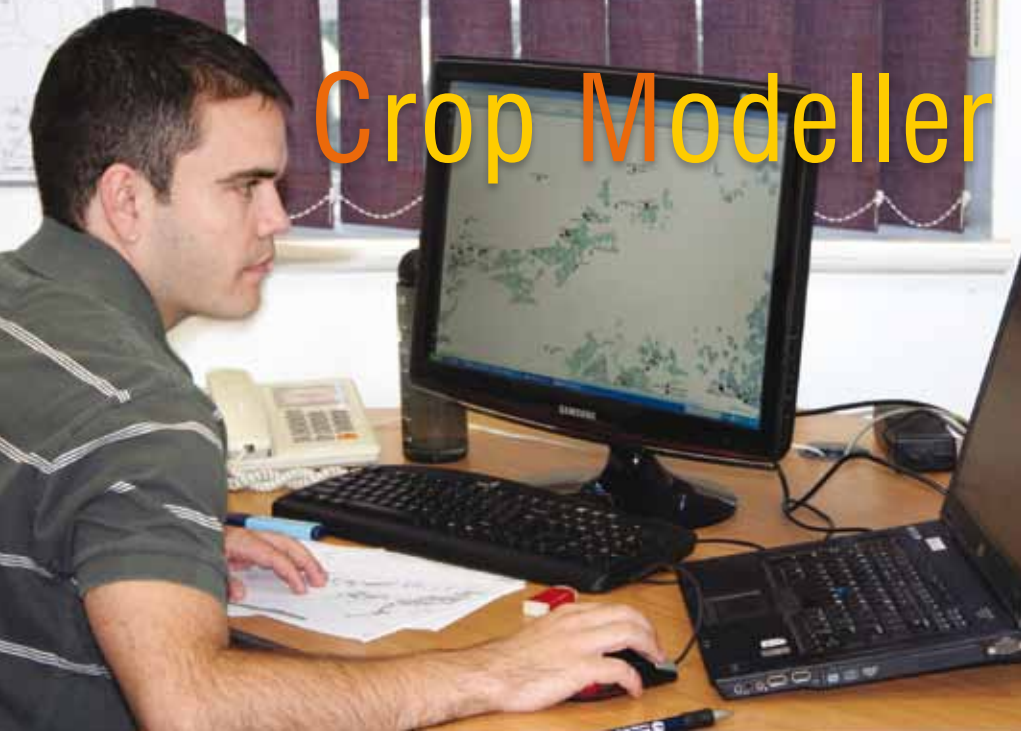


# Crop Modeller



**M**ichael van der Laan is a crop modeler at SASRI. He develops and applies computer models to improve SASRI's knowledge on the functioning of agronomic cropping systems. The ultimate aim of this work is to support research endeavours and transform it into profitable and sustainable sugarcane production.

His job involves using data from previous research to develop models that can be used to investigate sugarcane production system dynamics. It also includes applying existing models in current research projects in order to help farmers make decisions on how to manage their farm.

To work as a crop modeler you would need to complete an MSc or PhD in agronomy or soil science.

Michael is helping sugarcane growers get better crops by using modeling to effectively compare and assess the effectiveness of different management strategies. Modelling can be applied, for example, to determine the best timing for irrigation and fertilizer applications according to crop demand.

He enjoys collaborating with a wide range of scientists with different specialties and developing new models that can be used to advance SASRI's knowledge and help farmers. The challenge of helping farmers produce a profitable crop with minimal negative impact on the environment is also very exciting and rewarding.

Some of the challenges of Michael's job include: using mathematics to adequately describe agronomic systems, converting findings from modelling exercises to inform improved management decisions, keeping up with the interesting research that is being done all over the world and ensuring a fair balance between production objectives and environmental sustainability.