CONSTRUCTION OF A NEW SEMI-QUARANTINE TUNNEL STARTS AT THE FABI BIOCONTROL CENTRE

The construction of a new, state-of-the-art semi-quarantine tunnel started at the FABI Biocontrol Centre (FBC) on the experimental farm of the University of Pretoria. The tunnel is a much needed expansion of current FABI facilities to enable the cultivation of *Eucalyptus* and pine trees for research purposes.

Funding for the climate controlled tunnel that will cost almost R1 million to construct, was obtained as part of a larger grant by the FSA / DST Sector Innovation Fund. The grant was awarded to a team of researchers from the Tree Protection Co-operative Programme (TPCP) in FABI that includes Profs Bernard Slippers, Mike Wingfield, and Drs Brett Hurley and Wilhelm de Beer, for a research project titled "Increasing capacity for high precision and larger scale management of invasive pests of *Eucalyptus* and *Pinus* in South Africa". The project will run over several years and will form an integral part of the long term research done by the TPCP.

Insect pests and diseases are some of the most important threats to the sustainability of commercial forestry in South Africa. Fortunately, Industry-University-Government partnership through the TPCP at FABI has invested over the past ten years in research and capacity development with regards to monitoring and biological control of forest pests. Today, the FBC is a global leader in the field of biological control of plantation forestry pests.

During the past decade, research done at the FBC has led to the development, successful release and continuous production of several biocontrol agents. These include a nematode (*Deladenus siricidicola*) for the control of the *Sirex* woodwasp that attacks pine trees, as well as several control agents of eucalyptus pests such as *Leptocybe invasa*, the red gum lerp psyllid (*Glycaspis brimblecombei*), and the bronze bug (*Thaumastocoris peregrinus*). Ongoing projects include the development of biocontrol agents against the eucalyptus snout beetle *(Gonipterus* spp.) and the eucalyptus gall wasp (*Ophelimus maskelii*).

Left: Dr. Wilhelm de Beer together with some of the contractors on the site where construction of the new semi-quarantine tunnel started at the FABI Biocontrol Centre (FBC). Middle and right: Insects and plants don't strike! During the recent shutdown staff, students and family members continued with daily tasks at the FBC that could not be put on hold.

The new tunnel at the FABI Biocontrol Centre will enable TPCP researchers to grow plants in the absence of pests. Alternatively, contained plants infested with selected pest species can be cultivated to facilitate the rearing of biocontrol species on these pests. In addition to the tunnel, further developments over the next six months will include the expansion of current insect cages, as well as the upgrade of the full quarantine glasshouse.

The FBC facilities are managed and insects reared by a dedicated team technical staff members. The insects and plants at the FBC need care 24/7, every day of the year. During the recent strikes and university shutdown, senior and technical staff, together with some students and even family members, took turns to look after the plants and insects to avoid losses of valuable material and time.

Research at the FBC is done by a growing number of postdoctoral fellows, PhD and MSc students. To date eight PhD and six MSc students have received their degrees based on work done here. In line with Tree Protection Cooperative Programme (TPCP) principles, all research results are published and thus made available to all parties internationally with an interest in and who might benefit from the results. Publications on all aspects of research on the above-mentioned pests and biocontrol agents include a book on the *Sirex* woodwasp, eight book chapters, a review article in the journal *Science*, and almost 60 research articles in international journals.