

A world-class Biocontrol Centre for forest pests at FABI

The number of insect pests that threaten trees in forests and plantations are increasing at an alarming rate internationally.

For many of these pests biological control is the best, if not the only, option for control. However, biological control needs extensive and specialist research to develop and typically takes years. The rate of arrival of new pests, means that the forestry industry needs significant capacity in this field. The Tree Protection Cooperative Programme (TCP) provides the industry with support for the biological control of forest pests, including developing human capacity, doing the basic research, engaging with authorities and in some cases producing biological control agents.

The biological control programme of the TCP has been hampered by two major constraints in terms of facilities: Firstly, the production of biological control nematodes to support the industry programmes to control the Sirex woodwasp has put serious strains on the facilities and activities of Forestry and Agricultural Biotechnology Institute (Fabi). Secondly, no dedicated facility existed to import and study quarantine organisms needed for the development of biological control programmes of a number of newly arrived forestry pests. This leaves the industry in a seriously vulnerable position given the increasing pressure from insect pests.

During the past five years, various avenues have been explored to fund the required specialised facilities to enable the production and study of biological control agents. Options have included seeking industry support and exploring avenues to develop an independent business model to run such a facility. The academic excellence delivered by researchers in Fabi has, however, enabled us to convince the University of Pretoria that it is worth further investing in this research. With investment from UP

and with leveraged funding from other sources, the required facilities and equipment was eventually secured.

The new Fabi Biocontrol Centre facilities include a certified quarantine building and greenhouse, three laboratories, numerous growth rooms and walk-in cold storage facilities.

In addition it includes outside insect rearing cages, office space for key staff that will run the facility, and specialised equipment that will allow controlled fungal and insect handling, chemical ecology and physiological research.

The greater facility, together with the nursery environment that is connected to it, is amongst the most modern in the world where forest biological control work can be undertaken. It is sure to serve the industry's increasing needs for biological control well into the future.

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Fabi researchers and various forestry industry members discuss the new Biological Control Centre in from the quarantine glass house linked to the centre