

FABI @ THE 2011 NATIONAL SCIENCE WEEK

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The annual flagship event, the National Science Week (NSW), of the Department of Science and Technology (DST) took place in all nine provinces from 1 – 6 August 2011. However, the Mondi Science Centre in Piet Retief (Mpumalanga) was definitely the place to be, if learner attendance, enthusiasm, excitement and sheer passion was the barometer to go by. In this regard the Forestry and Agricultural Biotechnology Institute (FABI) through its DST/NRF Centre of Excellence in Tree Health Biotechnology (CTHB) programme spared no effort in its endeavour to further the NSW objective of “*attracting learners to Science, Engineering & Technology (SET) careers*”.

The FABI representatives for this year’s NSW in Piet Retief were Markus Wilken (PhD student), Amy Wooding (MSc student), Mmatshapho Phasha (MSc student), Johan van der Linde (MSc Student) and Osmond Mlonyeni (PhD student). These “FABIans” had no less than 30 exciting experiments in their arsenal for the wide range of learners (Grades 1 – 12) expected for the duration of the NSW. For the three days and a morning stay, the group presented to at least 31 schools and members of the Piet Retief community - a total of approximately 2508 people. The FABI presentations were anchored by the interlinked nature of science, fun and problem solving.

Most of the experiments conducted required active participation from learners, as a group and/or assistants in performing the experiments. The learners were more than eager to share in this. The initial step of any experiment started with the radical transformation of our assistants from learners to “Professors” upon wearing the oh-so-famous FABI laboratory coat. Thereafter, the “Magnificent” Markus, “Amazing” Johan aka “THE SANGOMA”, “Big strong” Mmatshapho, “Super” Amys and “The Oz” Osmond took the learners on a voyage of discovery, magic and science.

In this voyage, some of the favourite experiments included: The “*Amazing Eggs-periment*”, which entailed trying to insert a boiled egg into a flask whose diameter is smaller than the egg without touching or breaking the egg once placed on the mouth of the flask. “*Burning handkerchief*”: - setting a handkerchief on fire after being soaked in a colourless (ethanol and water) liquid solution. “*Killing the can*” - crushing a can in less than a second. “*Mood ring*” - determining the mood of our assistants using the rare tears of our “sangoma” captured every half a decade. The underlying principles of these experiments were to show learners that much of what they initially thought to be MAGIC was actually SCIENCE, and thus in unison after every session the concluding remarks were that it is not magic but SCIENCE!

In addition to these interactive presentations, the FABI team also had an exhibition table containing University of Pretoria brochures, Understanding Biotechnology posters and a sample of insect pests responsible for causing damage to the commercial forests in South Africa. This feature sought to highlight some of the research focus areas in FABI, and specifically the CTHB.

The collective effort of FABI to proactively participate in ensuring that young people are encouraged to pursue science as an indispensable career pathway remains an integral part of the work we do at FABI. The role of science in addressing the socio-economic challenges of our time and beyond is unquestionable. We believe that the road to improving science in South Africa is well-paved with a foundation such as the National Science Week!



The CTHB team conducting experiments to the amazement of learners during the National Science Week. (A) Amy Wooding, Mmatshapho Phasha, Markus Wilken, Johan van der Linde, Osmond Mlonyeni and very enthusiastic learners in the FABI tent, (B) The “SANGOMA” tears at work, (C) One of the “Professors” channelling their omniscient powers for the *Amazing Eggs-periment*, (D) Markus illustrating what is expected from the “Professor” during the *“Killing the can”* experiment.