RHIZOBIUM RESEARCHERS VISIT FABI

Two leading Rhizobium researchers, Dr Sofie de Meyer form the Centre for Rhizobium Studies at Murdoch University in Perth, Australia and Dr Euan James from the James Hutton Institute in Scotland presented a special seminar at FABI as part of their visit to the Institute. Dr de Meyer's entitled "Productive resilient legume symbioses well matched for farming systems and Dr James's "Betaproteobacterial symbioses with legumes".

Dr de Meyer explained how researchers at the Centre for Rhizobium Studies is focused on finding new legumes better adapted to future climatic conditions in Australia. All the Australian agricultural legumes are exotic and therefore have no native rhizobia in the soil associated with them.

Part of their research looks at matching legumes and rhizobia collected from Mediterranean climate regions in Greece and the Western Cape Province to Australian climates and soils. The group has achieved some success in introducing new legumes to the domestic cropping system by introducing novel legume cultivars to market through a legume breeding programme. An important part of their work also entails training in Rhizobiology and inoculation technology and an outreach programme is assisting subsistence farmers in Africa to use legumes to easily increase crop yield.

Dr James spoke of his research work on the diversity of Beta-rhizobia on Mimosa species in South America with the principal questions i) who are these symbionts, ii) what is their origin and iii) are they associated with specific legume hosts? His research showed that soil characteristics, especially pH appears to be the main determining factor in selecting symbionts. Mimosa is also very plastic in terms of being able to nodulate with a wide range of symbionts, and this has assisted its spread into diverse environments.