Lebeckia Field Walk

Lebeckia is a new perennial forage legume that has demonstrated great production potential on the acid infertile sandy soils frequently encountered across the wheat belt of Western Australia. The latest research into solutions for these unproductive soils conducted by Murdoch University was presented in the recent field walk hosted by the South West Catchment council and Global pasture consultants.

Professor John Howieson director of crop and plant studies at Murdoch University gave an overview of the selection process involved in identifying and adapting Lebeckia to thrive in this challenging environment.

Professor Howieson also highlighted the benefits of introducing Lebeckia for animal production. Lebeckia is a summer active perennial, which will not drop its leaves and provides high quality forage for sheep over the summer- autumn feed gap on soils that currently only support Tagasaste. Unlike Tagasaste, Lebeckia does not require expensive and time intensive management and will always remain within the reach of grazing sheep. Plant nutrition analysis of Lebeckia show that the leaves over summer provide 23.1% crude protein and have 81% digestible dry matter, in contrast to Tagasaste that has 13.9% crude protein content and 75 to 85% digestible dry matter and a high phenolic content.

Lebeckia growth over summer

November 2014

March 2015

Murdoch University honours student Tom Edwards shared soil data collected as part of the South West catchment council project into improving soil health. The project aims to monitor how the soil health may change over 4 years with the introduction of Lebeckia. The initial data indicates that Lebeckia is capable of improving the soil fertility and aiding the soil stability by encouraging improved growth of other plant species.
Dr Sofie De Meyer provided an overview of the research on the symbiotic bacteria associated with this plant and the remaining hurdles for inoculum production. *Lebeckia* forms a symbiosis with a special group of rhizobia that have only been discovered in the last 20 years. Several of the bacteria have been described as new species and show to have high nitrogen fixation efficiency with *Lebeckia*.

This field walk demonstrated that the *Lebeckia* domestication program has attracted wide farmer interest and is now at the stage where Industry funds are required for broader agronomic evaluation. Another field day will be scheduled in spring this year. If you have any questions regarding the *Lebeckia* research program or opportunities to become involved please contact Prof Howieson (J.Howieson@murdoch.edu.au or +61 8 9360 2231).