

Seed and Nutritional Technology Development PGP Programme

Quarterly Report Summary April – June 2014

All projects are on track and are making good progress towards the desired outcomes.

The field performance data from our Biological Seed Additive (BSA) pasture trials are variable, but have shown increased dry matter production at a site with high drought and disease stress. ACVM approval has been obtained for spring 2014 sowings at a number of trial sites. The glasshouse pot trials are producing positive results. Results confirm that the currently used agricultural chemicals are compatible with BSA, and seed treatments currently used on a variety of seeds are also compatible with BSA. Storage rates on BSA treated seeds are positive, with survival close to 90% after six months.

The endophyte candidate selection based on improved bioactivity, strong transmission and storage results has been made. This selection will give more options for the future than would have been available from other candidates. The first nucleus seed crop with this endophyte has established well. All insect resistance and livestock grazing experiments are providing good results.

A trial to determine the water use efficiency of our new hybrid brassica and a grazing trial to determine animal production responses have both been completed. The results are currently being analysed for the animal grazing study, however, the results from the new hybrid brassica confirm a 38% increase in water use efficiency.



Top: BSA plot trials at Palmerston North.

Above: New Supplementary Feed Crops water use efficiency trial, Canterbury

Outcomes to date:

- Strong progress on the glasshouse pot trials and BSA storage results as an effective seed treatment.
- Establishment of the first nucleus seed crop for our new endophyte with improved bioactivity.
- Demonstration of the improved water-use efficiency of our new hybrid brassica