

New Zealand Seed Research Update

Notes from Phil Rolston, AgResearch Lincoln

“Seeds for the Future” was the focus of a recent seed symposium held in November 2008 at Massey University and attended by 35 seed researchers. In herbage seed, papers reviewed NZ work on PGR’s especially trinexapac-ethyl (Moddus) by Richard Chynoweth *et al*; the role of the flag leaf in ryegrass seed fill (Trethewey & Rolston) and ryegrass spring N prediction model (Rolston *et al*).

Seed research received a boost mid year when a consortium of researchers obtained a 5 year contract to work on a project entitled “Advanced Seed Production” led by John Hampton (Lincoln University), with sub-projects on cytokinin regulation of seed fill (Paula Jameson & Jason Song, Canterbury University); sucrose transporter genes (Jan Grant, Plant & Food Institute); plant growth and reproductive development (Dick Martin, Andrew Fletcher of Plant & Food and Jason Trethewey and Phil Rolston of AgResearch).

Seed Technology continues to be taught as a 300 level course at Lincoln University by John Hampton and Phil Rolston, with 18 students for 2008. An industry short course for seed reps was run mid year by Lincoln University.

Jason Trethewey finished his post-doc at AgResearch and has been appointed as a Crop Physiologist-Seed production to work with Phil Rolston in seed production research. Funding for a post-doc in legume seed production starting mid 2009 has recently been approved.

The Foundation for Arable Research (FAR) is a farmer levy funded group led by Nick Pyke that is the major funder of applied seed production research and extension to arable farmers. Richard Chynoweth manages contracts in herbage seed; but he has been very active in both research (he is completing a M.Agri.Sci in ryegrass seed production) and extension with the Ryegrass 3000 programme in conjunction with Phil Rolston and Dick Martin. Four regional ryegrass farmer groups each met twice during spring to work through decision making around early spring management (N & Moddus) and late spring (fungicides and harvest).

Bede McCloy of NZ Arable is the major private research contractor in herbage seed providing services to both FAR and agri-chemical companies. Many of the larger seed companies have seed extension specialists with Murray Kelly of PGG Wrightson are very active in field based research on herbage seed.

Seed pathologist Nik Grbavac (ASUREQuality) includes work on blind seed and endophyte while leaf diseases in seed crops is the domain of Ian Harvey (PlantWise). Both are based in Lincoln. Seed endophyte transmission is being put under the microscope by Stuart Card of AgResearch (Grasslands campus, Palmerston North).

In conclusion seed production research in New Zealand is in good health and the industry confident of its future.