

<b>Project title</b>	Beating climate change with healthy soils and pastures
<b>Location / address</b>	Creighton's Creek and Ruffy
<b>Organisation</b>	Creighton's Creek Landcare
<b>Fund source</b>	Australian Government National Landcare Programme
<b>Year/s of demo</b>	2016/17
<b>Objectives of the demonstration</b>	<p>Investigate suitable perennial grass species and sub clover cultivars for the area. Evaluate the role of nitrogen pre and post sowing as an aid to grass establishment and the impact of rates of sowing of phalaris and clover on pasture productivity.</p> <p>Broadleaf weed control and silver grass control.</p>
<b>Basis of trial</b>	<p>Improved resilience of pastures and long term stability is dependent on the effective establishment suitable perennial grasses and clovers at appropriate seeding rates.</p> <p>High quality feed is aided by the removal of low productivity species.</p>
<b>What did you do /soil treatments</b>	<p>The following trials were sown</p> <ul style="list-style-type: none"> <li>• 4 phalaris cultivars (Australian, Holdfast GT, Advance AT and Landmaster), two cocksfoots (Safin and Howlong) Prosper tall fescue and two ryegrasses (Kidman and Barberia)</li> <li>• Sub clover cultivars Monti, Campeda, Antas Mintaro and Mawson</li> <li>• Urea at 100 kg/ha was drilled in pre-sowing, topdressed or pre-sown and topdressed on a phalaris sowing</li> <li>• Phalaris was sown at 2, 4, 6 and 8 kg/ha</li> <li>• Clover was sown at 2, 4, 6 and 8 kg/ha.</li> </ul> <p>Agtryne (1l/ha and 1.5 l/ha), MCPA 750 (at 1l/ha and 1.5 l/ha), Simazine 900 (at 550gm/ha and 900gm/ha) MCPA 750 plus Ecopar (300 ml/ha plus 500 ml/ha), MCPA 750 plus Diuron 900 (500 ml/ha plus 200 gm/ha) and MCPA 750 plus Ecopar plus Diuron 900 (500 ml/ha plus 200 ml/ha plus 200 gm/ha) were sprayed onto a pasture containing capeweed, silver grass erodium ( E. moschatum) barley grass and annual ryegrass).</p>

<b>Measurements</b>	Observations of establishment and vigour of species trial
<b>When/how/method</b>	Observations of effectiveness of herbicide treatments and effect on feed quality.
<b>Results</b>	<ul style="list-style-type: none"><li>• Initial superior performance of Kidman and Barberia ryegrasses. Effective control with these species of re-emergent bent grass.</li><li>• Poor vigour of Australian phalaris compared to Holdfast GT and Advance AT phalaris.</li><li>• Campeda was the best performing clover followed by Antas</li><li>• Top dressing urea either on its own or in conjunction with pre-sowing application significantly improved establishment</li><li>• The most cost effective treatment for controlling broadleaf weeds was MCPA plus Diuron</li></ul>

## Site photos



Marking out the plots – Reece Hardwidge (Heritage Seeds) and Stan Artridge



Plots being sown with cone seeder



Early growth of grass cultivar plots



Members of Creighton's Creek Bestwool group assessing plot establishment.