Dargaville

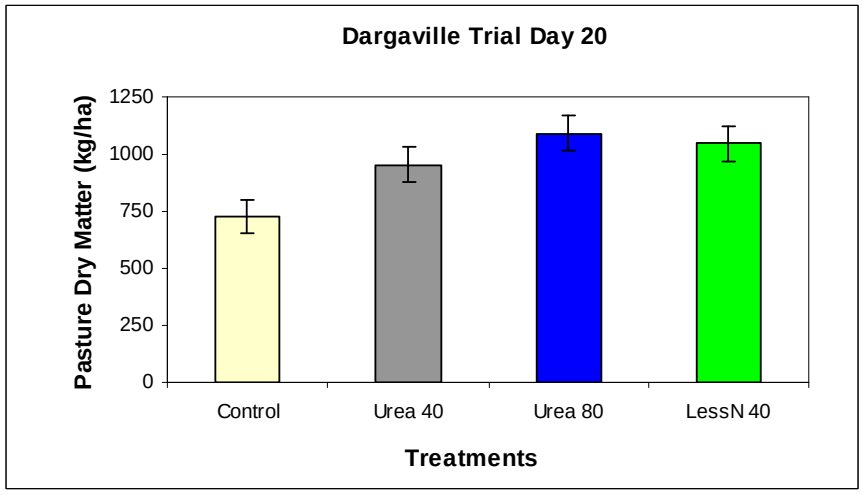
The trial was on a Dargaville non-irrigated dairy farm. The trial area was ryegrass-clover based pasture under normal dairy conditions. It was started on 14 April 2009 (soil temperature16.5^{0}C) and finished on 4th May 2009 (soil temperature 14.5^{0}C). The pasture growth was assessed on Day 20 after treatment application with pasture probe. The trial paddock was under severe moisture stress at treatment application time and it remained so post seven days of treatment application before a significant amount of rain fell.

LessN 40 and Urea 80 produced statistically similar pasture dry matter yield but both treatments pasture dry matter was not significantly higher compared to the Urea 40 treatment. Urea 40 treatments produced dry matter significantly higher compared to the control treatment. Trial area soil was found to be deficient in potassium.

There were reasonably low nitrogen reposes seen but a benefit from the use of LessN was seen. The nitrogen responses are likely to have been limited by low soil moisture levels and possibly by low soil pH and low potassium availability.

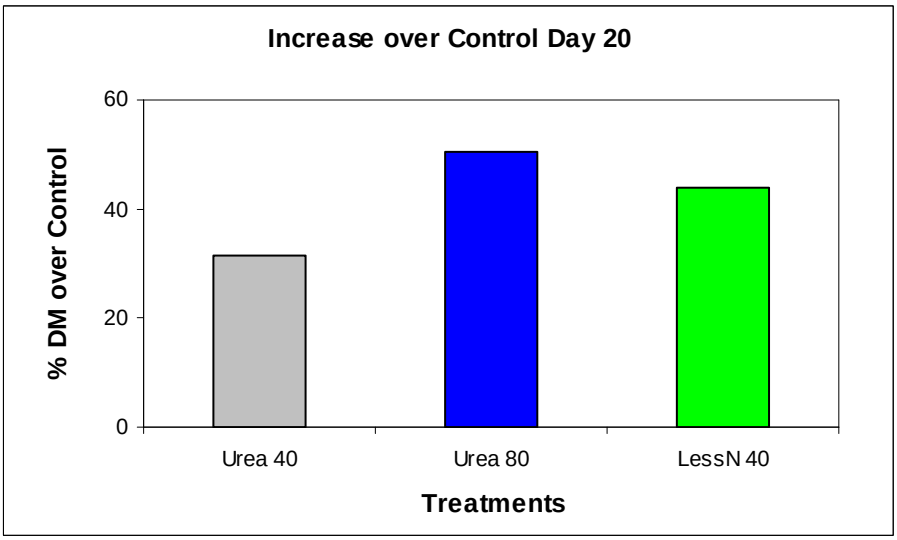
Table and Graph of Probe Pasture Dry Matter Production (kg/ha) Day 20

Treatment	DM
Control	726^{a}
Urea 40	954^{b}
Urea 80	1092^{bc}
LessN 40	1045^{bc}



* Treatments that share the same letter are not statistically
Significantly different from each other (95% confidence level).

Graph of the Increase over Control (%) Day 20



Soil test report (pre treatment application)

According to the soil test, it was possible that pasture response was limited by low soil pH and by a marginally low potassium level for this time of year. Phosphorus availability was unlikely to be limiting. The marginally high nitrogen availability calculated may indicate that there was some limited potential to respond to nitrogen application.

Analysis		Level Found	Medium Range	Low / Medium / High
pH	pH Units	5.5	5.8 - 6.3	
Olsen Phosphorus	mg/L	40	20 - 30	
Potassium	me/100g	0.30	0.50 - 0.80	
Calcium	me/100g	8.8	6.0 - 12.0	
Magnesium	me/100g	1.55	1.00 - 3.00	
Sodium	me/100g	0.18	0.20 - 0.50	
CEC	me/100g	18	12 - 25	
Total Base Saturation	%	60	50 - 85	
Volume Weight	g/mL	0.82	0.60 - 1.00	
Sulphate Sulphur	mg/kg	8	7 - 15	
Available Nitrogen (15cm Depth)*	kg/ha	264	150 - 250	
Anaerobically Mineralisable N*	µg/g	216		
Base Saturation %		K 1.6	Ca 48	Mg 8.6 Na 1.0
MAF Units		K 5	Ca 9	Mg 28 Na 7