Whangarei

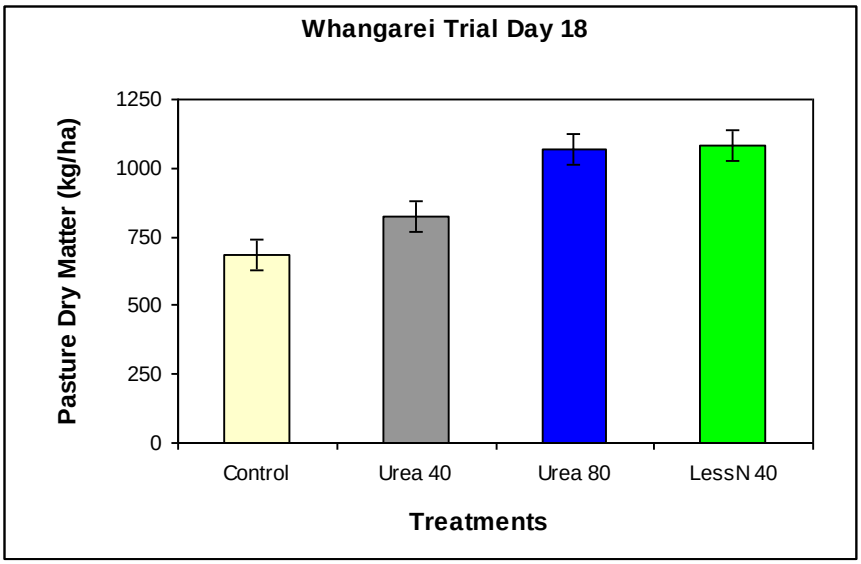
The trial was on a Whangarei non-irrigated dairy farm. The trial area was ryegrass-white clover based pasture. It was started on 15 April 2009 (soil temperature 16^0C) and finished on 3 May 2009 (soil temperature 14.5^0C). The pasture growth was assessed on Day 18 after treatment application with pasture probe and a lawn mower cut.

Probe dry matter yield

LessN 40 and Urea 80 treatments caused statistically significant pasture growth compared to Urea 40 treatment at Day 18. Urea 40 in turn was statistically significantly better than Control.

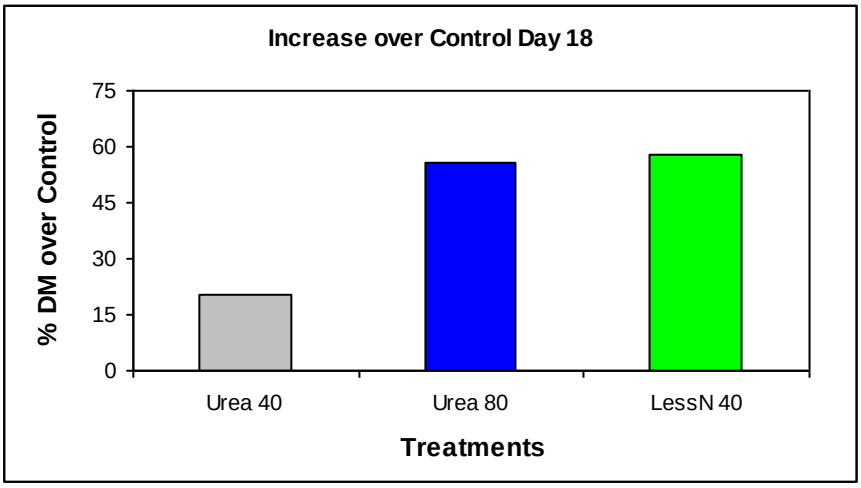
Table and Graph of Probe Pasture Dry Matter Production (kg/ha) Day 18

Treatment	DM
Control	686[a]
Urea 40	825[b]
Urea 80	1068[c]
LessN 40	1082[c]



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

Graph of the Increase over Control (%) Day 18



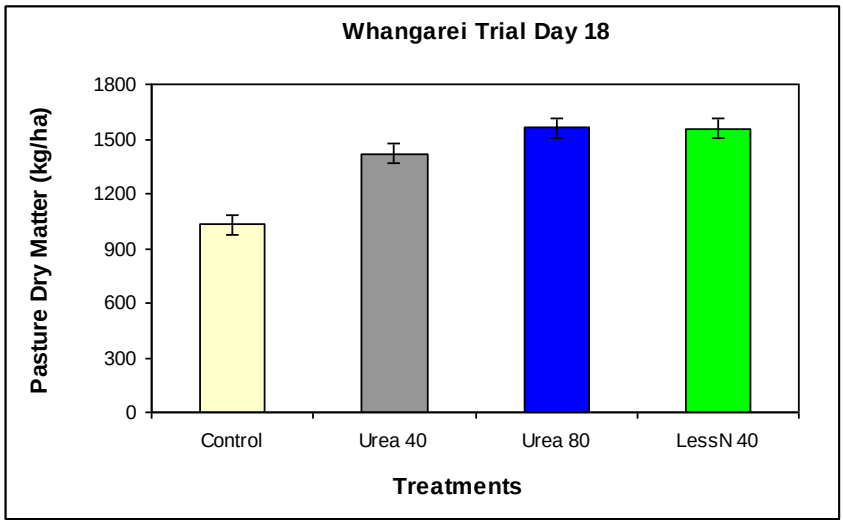
Mower dry matter yield

One strip per plot was cut using a rotary mower in the middle of each plot. The cut material was weighed green and a sub-sample was removed to calculate dry matter percent. This sub-sample was weighed green, dried and weighed again. The total area per plot mowed was 2.25 square metres.

The table below gives the values of mower harvested total dry matter on Day 18. LessN 40 and Urea 80 caused similar mower dry matter yield which was statistically significantly higher compared to control. Mower dry matter yield of Urea 40 treatment was not statistically significantly different from control, LessN 40 and Urea 80 treatments. Again these are total dry matter levels rather than the amount of growth during the course of the trial and as such they just give an indication of differences and show lesser differences than if starting dry matter levels had been assessed for the mow strips.

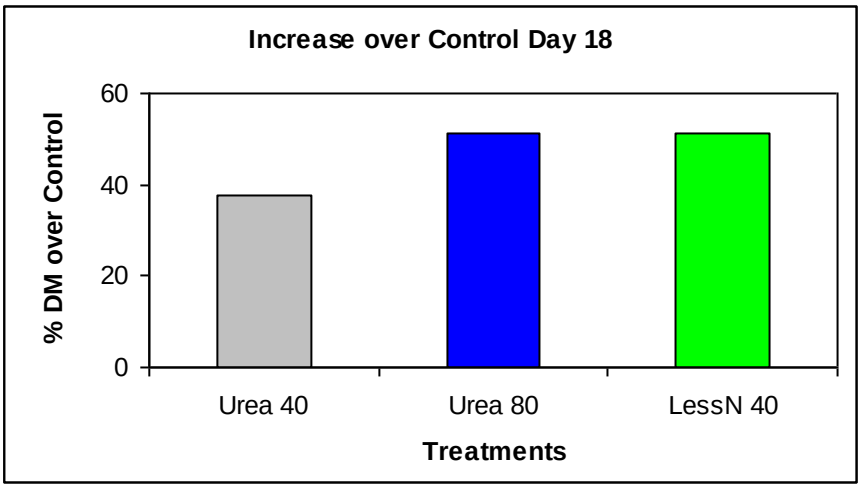
Table and Graph of Mower Pasture Dry Matter Production (kg/ha) Day 18

Treatment	DM
Control	1030[a]
Urea 40	1420[ab]
Urea 80	1560[b]
LessN 40	1558[b]



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

Graph of the Increase over Control (%) Day 18



Soil test report (pre treatment application)

The soil test indicated that there would likely be no significant limitation on pasture growth from major mineral element availability in the soil. The available nitrogen was measured as high but there were still reasonable nitrogen responses in the trial and an excellent LessN system response.

Analysis		Level Found	Medium Range	Low / Medium / High
pH	pH Units	6.2	5.8 - 6.3	
Olsen Phosphorus	mg/L	55	20 - 30	
Potassium	me/100g	0.59	0.50 - 0.80	
Calcium	me/100g	15.2	6.0 - 12.0	
Magnesium	me/100g	1.45	1.00 - 3.00	
Sodium	me/100g	0.14	0.20 - 0.50	
CEC	me/100g	22	12 - 25	
Total Base Saturation	%	79	50 - 85	
Volume Weight	g/mL	0.87	0.60 - 1.00	
Sulphate Sulphur	mg/kg	21	7 - 15	
Available Nitrogen (15cm Depth)*	kg/ha	300	150 - 250	
Anaerobically Mineralisable N*	µg/g	231		
Base Saturation %		K 2.7 Ca 69	Mg 6.6 Na 0.6	
MAF Units		K 11 Ca 16	Mg 28 Na 5	