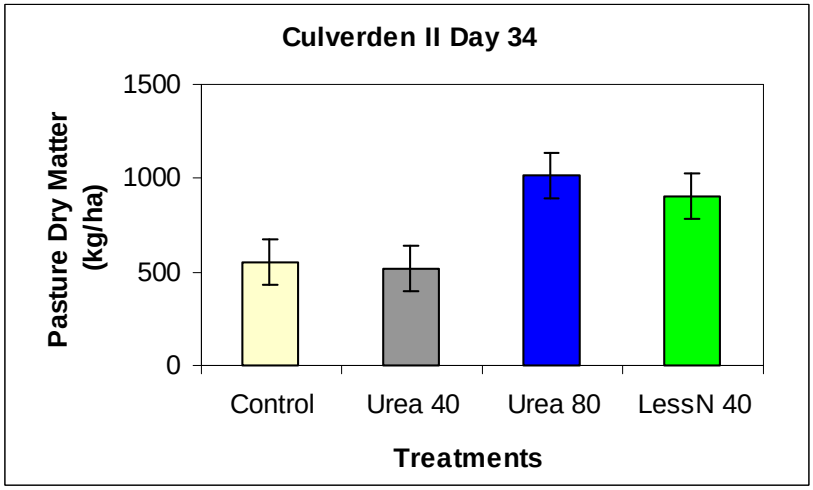
Culverden II

The trial was on a Culverden borderdyke irrigated dairy farm. The trial area was ryegrass-clover based pasture. Residual pasture dry matter base line was recorded on 25 February 2009 (soil temperature 19.5^{0}C) and pasture growth was assessed on 31 March 2009 (soil temperature 18^{0}C).

LessN 40 performed similarly to Urea 80 at Day 34 post treatment application, and both these treatments caused statistically significantly greater pasture growth than Urea 40 and Control treatments. Urea 40 was not statistically significantly different from Control.

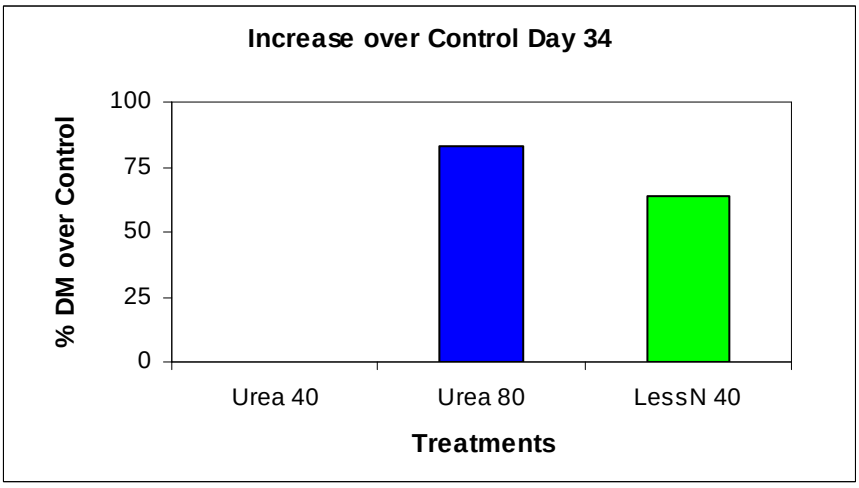
Table and Graph of Pasture Dry Matter Production (kg/ha) Day 34

Treatment	DM *
Control	553[a]
Urea 40	517[a]
Urea 80	1012[b]
LessN 40	907[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 34



Soil test report (pre treatment application)

The soil was an intergrade between Barrhill alluvial sandy loam and Chertsey silt loam. There was a good level of available nitrogen in the soil which may help explain the low response evident to the Urea 40 treatment. According to the soil test, phosphorus and sulphur were unlikely to be very limiting but there may have been some improvement in growth response with liming (especially given the locally good pasture response expected to liming and molybdenum on Chertsey soil) and potassium may have been marginally limiting.

Analysis		Level Found	Medium Range	Low / Medium / High
pH		5.5	5.8 - 6.3	
Olsen P	(mg/L)	25	20 - 30	
Potassium	(me/100g)	0.39	0.50 - 0.80	
Calcium	(me/100g)	11.4	6.0 - 12.0	
Magnesium	(me/100g)	1.11	1.00 - 3.00	
Sodium	(me/100g)	0.16	0.20 - 0.50	
CEC	(me/100g)	19	12 - 25	
Base Saturation	(%)	69	50 - 85	
Volume Weight	(g/mL)	0.77	0.60 - 1.00	
Sulphate-S	(mg/kg)	19	7 - 15	
Available N (15cm Depth)	(kg/ha)	258	150 - 250	
Base Saturation		K 2.1	Ca 60	Mg 5.9	Na 0.9
MAF Units		K 6	Ca 11	Mg 19	Na 6
Anaerobically Mineralisable N		224 ug/g			