
# Irwell

The trial was on an Irwell sheep, beef and dairy runoff farm. Paddock soil type was Templeton silt loam. The paddock was planned to be harvested for feed conservation over the trial period of 6 months.

The trial paddock pasture in the first rotation was planned to be turned into silage after 7-8 weeks of pasture growth. On 24 September 2008 (soil temperature $14^0$C), a baseline was taken for each plot and then pasture growth assessed after a further 21 and 46 days. At Day 21 and 46, LessN 40 performed similarly to Urea 80 and both these treatments caused statistically significantly greater pasture growth than the Urea 40 treatment. Urea 40 was not statistically significantly better than Control on Day 21 but significantly higher than control on Day 46. The pasture was harvested for feed conservation on Day 47.

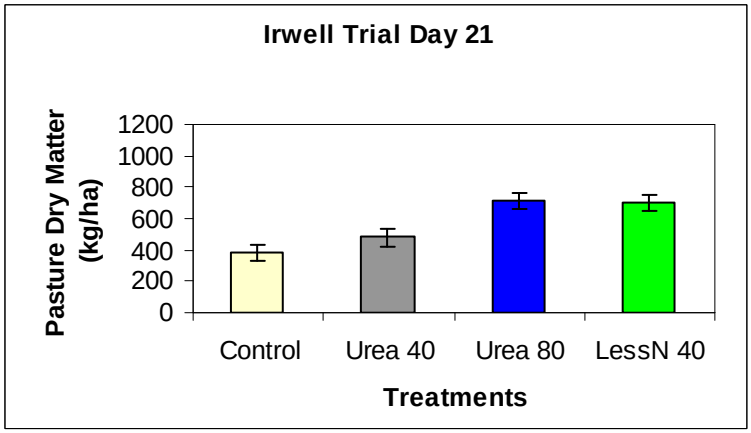
In rotation 2, a residual pasture base line was recorded and treatments were reapplied on respective plots. Pasture DM assessment was recorded on Day 36 post treatment application. LessN 40 performed similarly to Urea 80 at Day 36 and both these treatments caused statistically significantly greater pasture growth than Control and Urea 40 treatments. Urea 40 was not statistically significantly better than Control on day 36. The pasture was harvested for feed conservation after the trial measurements.

In rotation 3, a residual pasture base line was recorded for each plot and treatments were reapplied on respective plots. The pasture growth was assessed after 28 and 46 days post treatment application. At Day 28 and 46, LessN 40 performed similarly to Urea 80 and both these treatments caused statistically significantly greater pasture growth than the Urea 40 treatment. Urea 40 was not statistically significantly better than Control on Day 28 but significantly higher than control on Day 46.

## Rotation 1

**Table and Graph of Pasture Dry Matter Production (kg/ha) Day 21**

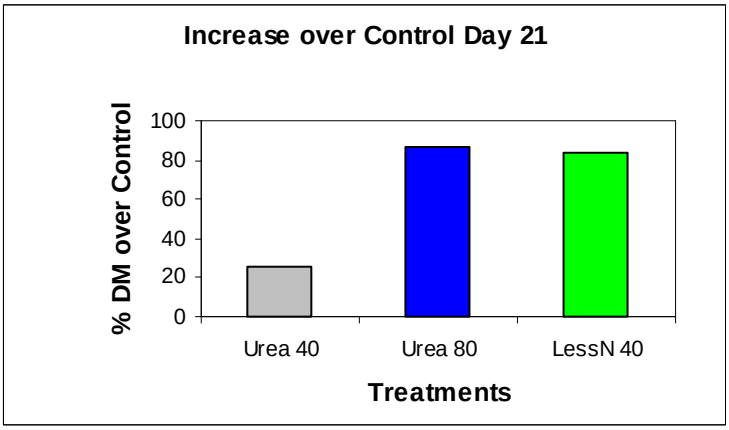
| Treatment | DM Day 21* |
|---|---|
| Control | 381 a |
| Urea 40 | 480 a |
| Urea 80 | 712 b |
| LessN 40 | 699 b |




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

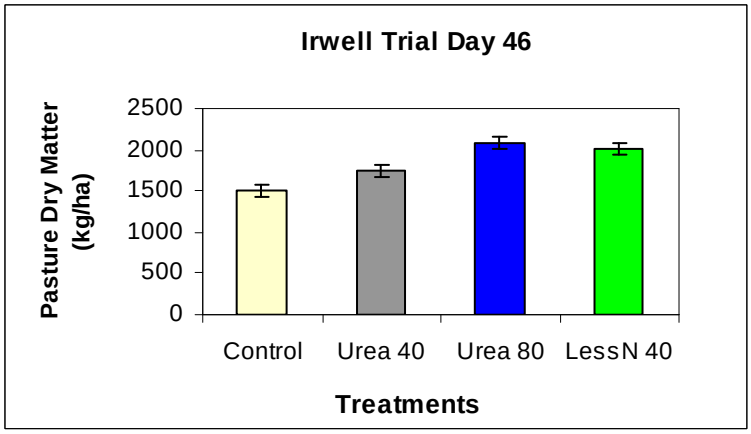
## Rotation 1

### Graph of the Increase over Control (%) Day 21



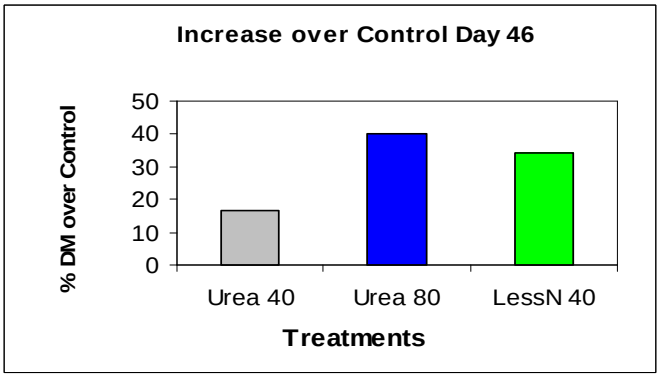

### Table and Graph of Pasture Dry Matter Production (kg/ha) Day 46

| Treatment | DM Day 46* |
|---|---|
| Control | 1494 a |
| Urea 40 | 1745 b |
| Urea 80 | 2091 c |
| LessN 40 | 2009 c |




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

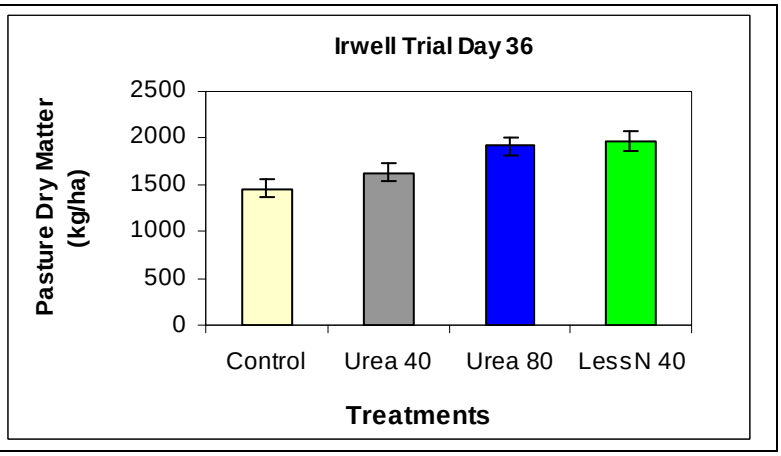
### Graph of the Increase over Control (%) Day 46



## Rotation 2

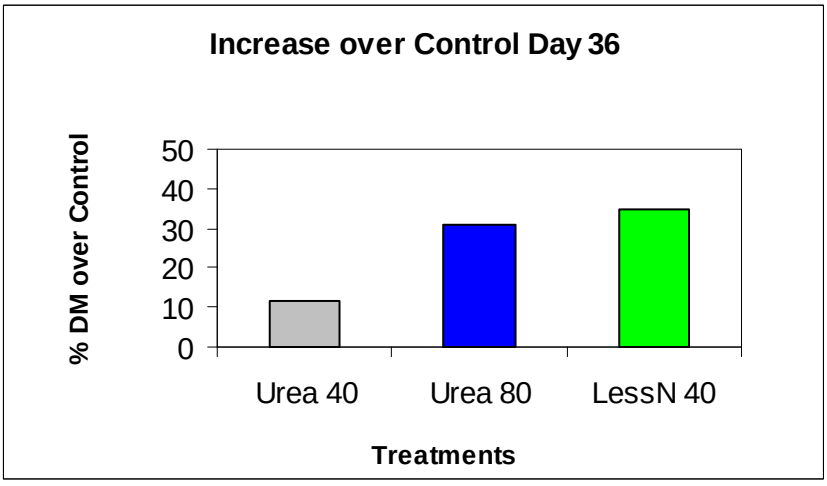
Treatments were reapplied.

| Treatment | DM Day 36* |
|---|---|
| Control | 1463 a |
| Urea 40 | 1633 a |
| Urea 80 | 1915 b |
| LessN 40 | 1970 b |




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

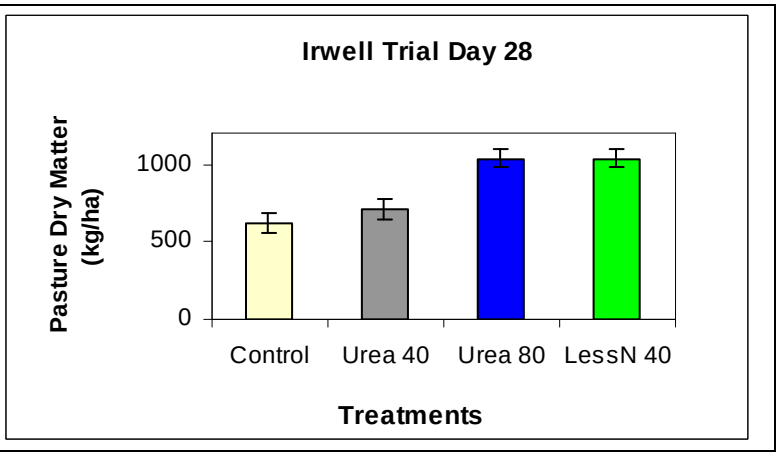
## Graph of the Increase over Control (%) Day 36



**Rotation 3**

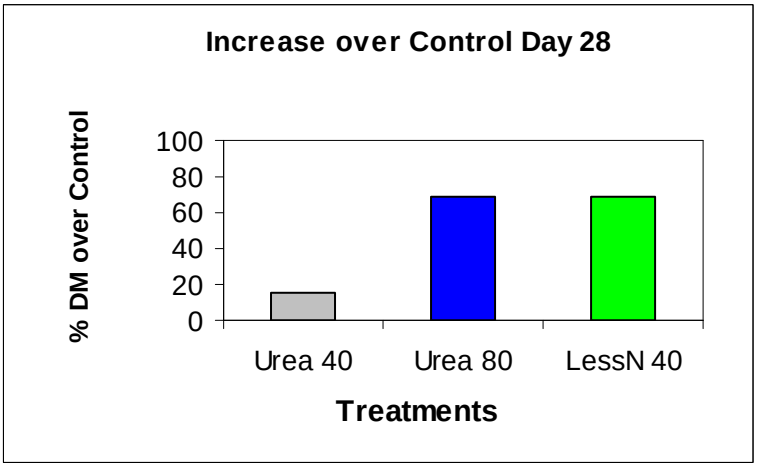
Treatments were reapplied.

| Treatment | DM Day 28 * |
|---|---|
| Control | 616 a |
| Urea 40 | 712 a |
| Urea 80 | 1038 b |
| LessN 40 | 1037 b |



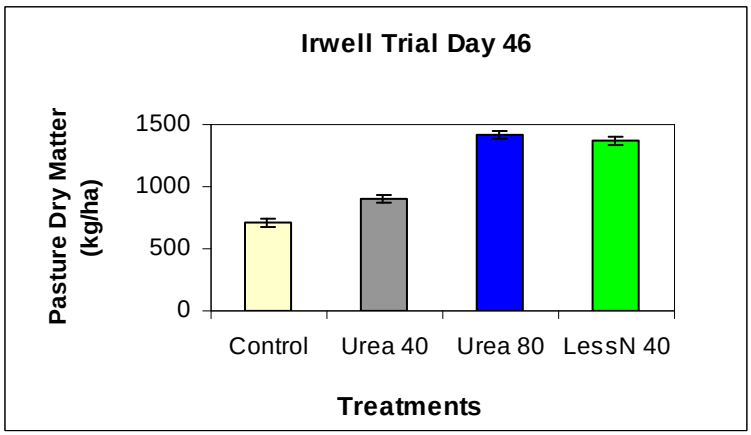

* Treatments that share the same letter are not statistically significantly different from each other (95% confidence level).

**Graph of the Increase over Control (%) Day 28**



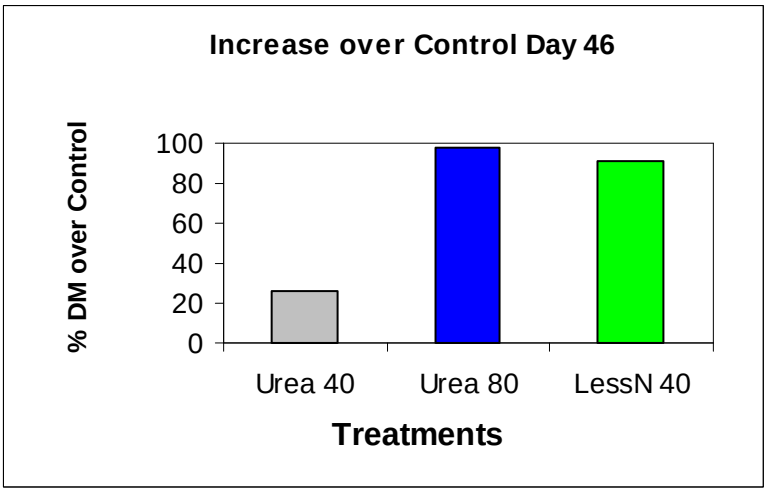
## Rotation 3

| Treatment | DM Day 46* |
|---|---|
| Control | 715 a |
| Urea 40 | 901 b |
| Urea 80 | 1414 c |
| LessN 40 | 1369 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 46




## Soil test report (pre treatment application)

| Analysis | | Level Found | Medium Range | Low | Medium | High |
|---|---|---|---|---|---|---|
| pH | | 5.7 | 5.8 - 6.3 | | | |
| Olsen P | (mg/L) | 31 | 20 - 30 | | | |
| Potassium | (me/100g) | 0.32 | 0.50 - 0.80 | | | |
| Calcium | (me/100g) | 8.1 | 6.0 - 12.0 | | | |
| Magnesium | (me/100g) | 1.27 | 1.00 - 3.00 | | | |
| Sodium | (me/100g) | 0.19 | 0.20 - 0.50 | | | |
| CEC | (me/100g) | 16 | 12 - 25 | | | |
| Base Saturation | (%) | 60 | 50 - 85 | | | |
| Volume Weight | (g/mL) | 0.92 | 0.60 - 1.00 | | | |
| Sulphate-S | (mg/kg) | 5 | 7 - 15 | | | |
| Available N (15cm Depth) | (kg/ha) | 165 | 150 - 250 | | | |
| Base Saturation | | K 2.0 | Ca 49 | Mg 7.7 | Na 1.2 | |
| MAF Units | | K 6 | Ca 9 | Mg 26 | Na 8 | |
| Anaerobically Mineralisable N | | 120 ug/g | | | | |