

## Lincoln University Dairy Farm - Farm Walk notes

Tuesday 4-August 2015

**LUDF – focus for 2015/16 Season: Nil-Infrastructure, low input, low N-loss, high profit.**  
Farm system comprises 3.5 cows/ha (peak milked), 150kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1.13million and Target production of 500kgMS/cow.

### Critical issues for the short term

1. Monitor average pasture cover on the milking platform
2. Observing cows for signs of mastitis
3. Use back fences with all herds to minimise pasture damage and aid regrowth
4. Supplement cows with Mag

### Key Numbers - week ending Tuesday 4<sup>th</sup> August 2015

|                 |             |                      |                |
|-----------------|-------------|----------------------|----------------|
| Ave Past Cover  | 2502KgDM/ha | Past Growth Rate     | 25 kgDM/ha/day |
| Round length    | >600 days   | Ave Supplement used  | 4 kgDM/cow/day |
| No Cows on farm | 106         | Ave Soil Temp (week) | 6.2 degrees    |

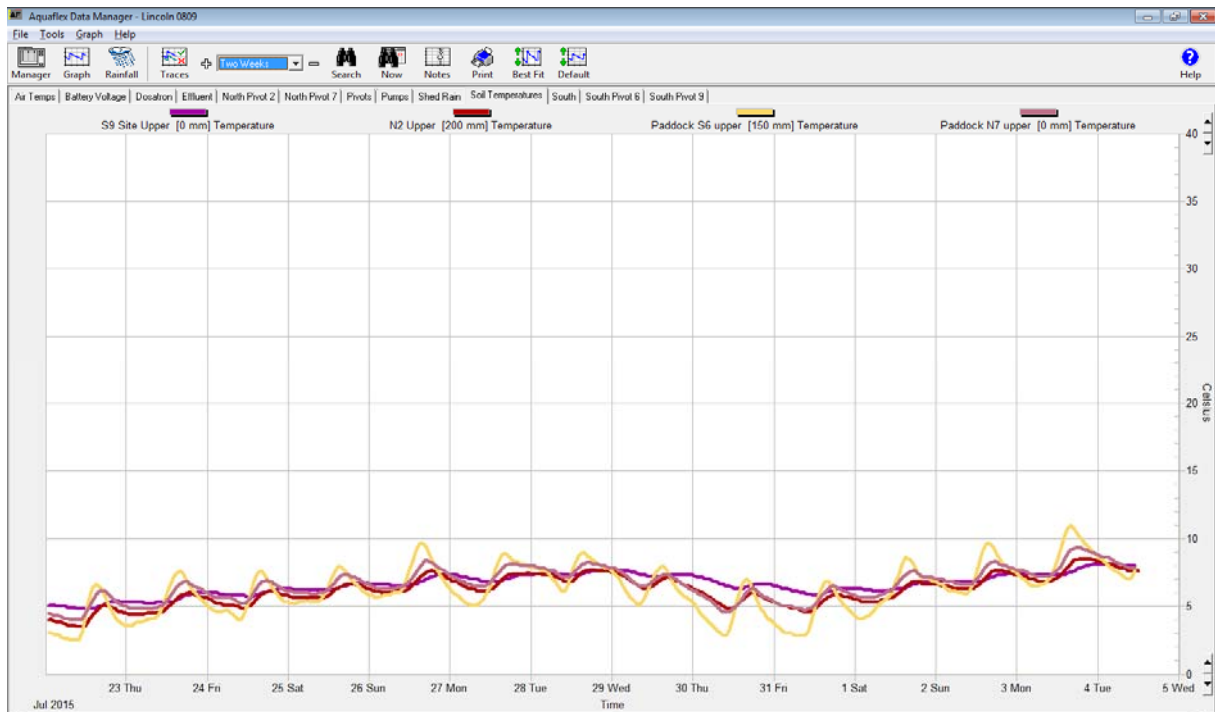
### Herd Management

1. There are currently 106 calved cows (76 milkers, 29 colostrum cows and one red mob cow) on farm.
2. Springing cows are continuing to be held off the milking platform on East Block. Springers are being fed a small strip of pasture plus approximately 8 kg DM/cow/day as good quality pasture silage at the East block. In calf heifers are calving down in a separate mob from the MA springing cows.
3. Cows are continuing to be only brought onto the platform as they calve to permit accumulation of a better average pasture cover on the milking platform.
4. Utilization of both pasture and silage continues to be excellent as ground condition are dry.
5. 230 later calving cows are at "Jackies" block, receiving approximately 8kgDM per cow per day of Lucerne baleage.
6. Mg is being supplemented to cows in the form of Mg Oxide dusted on the silage, both at the East block and at the graziers. Magnesium is also being supplemented to the calved animals on the milking platform as Mag Oxide and Mag Chloride in the stock water.
7. 24 heifer replacement calves have been tagged so far.

### Growing Conditions

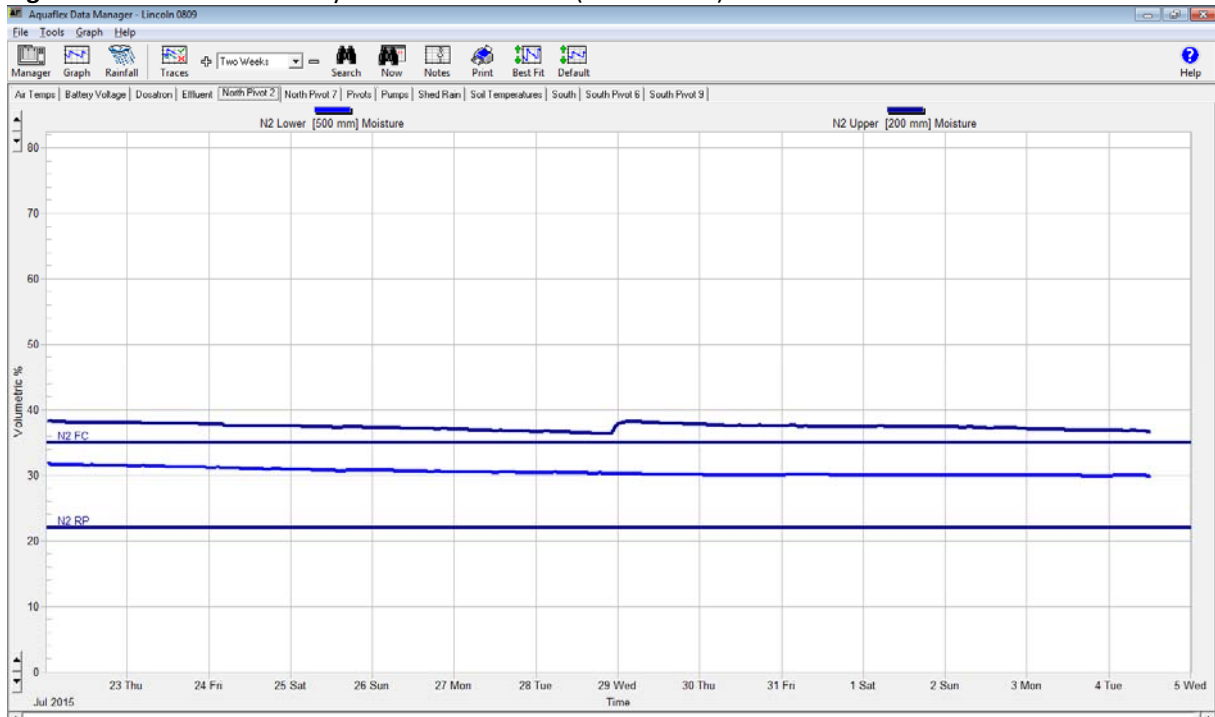
8. 9 am average soil temperature for the week was 6.2 degrees (0.7 degree higher than last week).

**Figure 1:** Soil temperature history for the last 2 weeks



9. We have had no rain over the last week.

**Figure 2:** Soil moisture history for the last 2 weeks (Paddock N2).

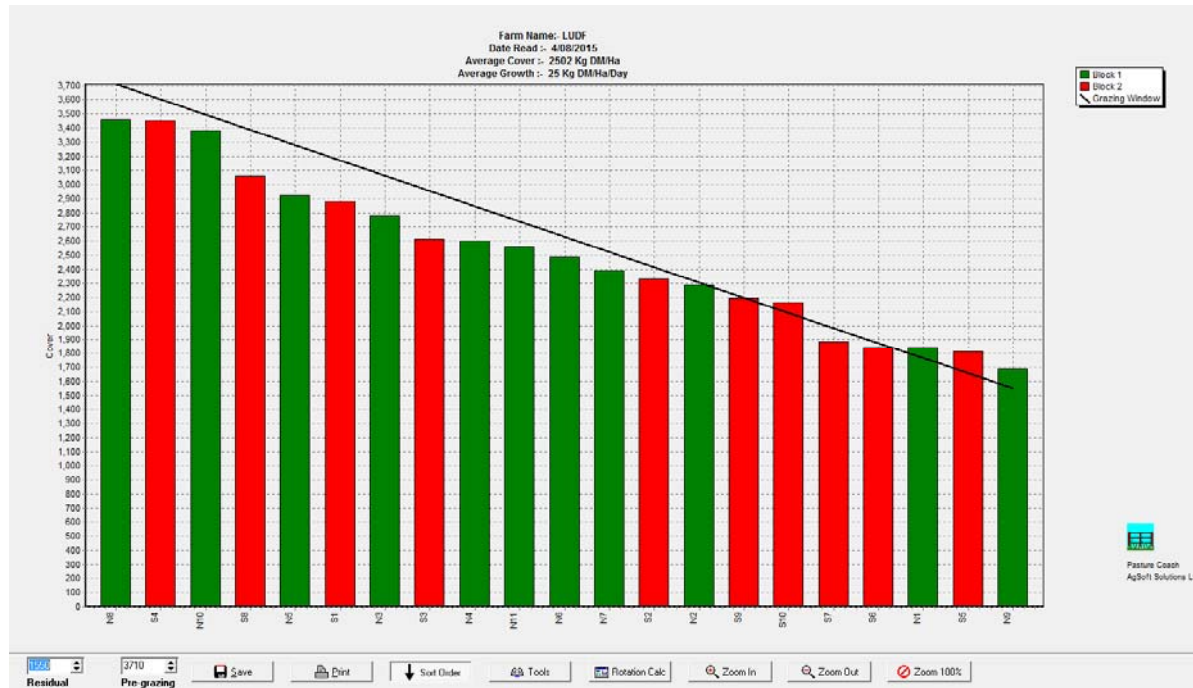


## Pasture Management

10. There are only 106 calved cows on the platform at the moment. They are being allocated a section of a paddock and supplemented with 4kgDM baleage per cow per day. We will start a formal spring rotation planner from now on, based initially on an allocated area of 65m<sup>2</sup> per cow per day of pasture plus 4kgDM per cow per day of baleage.

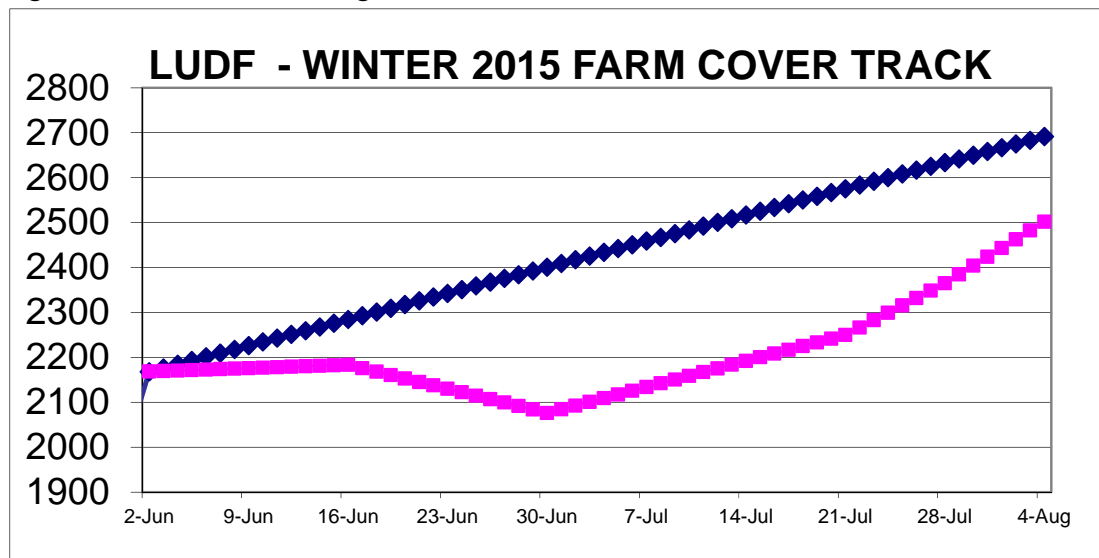
11. Our demand line for this week has again been calculated based on the target average pasture cover tracker for the winter. The tracker targeted an APC of 2692kgDM/ha by the 4<sup>th</sup> August. Using this APC and target residual of 1550kgDM/ha, allows the pregraze target to be calculated as follows. Pregraze target cover = (APC minus residual) x 2 + residual = (2692 APC– 1550 residual) x 2 + 1550 = 3834 kgDM/ha. This provides a better understanding of where the farm is in terms of actual covers compared to where we had budgeted to be and shows ideally the pregraze covers would be approximately 400kgDM/ha higher than they are currently.

**Figure 3: This week's feed wedge:**



12. The target APC vs actual is as below:

**Figure 4: Autumn – Winter Target APC:**



**Feeding Management for the coming week**

13. Estimated pasture growth over the last week, based on the pasture cover as plated is 25 kgDM/ha/day. 2 paddocks (N1 and S7) have not recorded any growth over the past week.

14. Demand on farm is relative low (8 kgDM/ha/day) with only 106 calved cows on the platform but will continue to increase rapidly as more fresh cows come onto the platform from the East block.
15. According to the autumn tracker above, the farm is now 190kgDM/ha below its target for 4<sup>th</sup> August 2015 – a pleasing improvement on last week when 285kgDM/ha deficit was recorded. This is equivalent to a 30 tonnes DM deficit across the entire milking platform at the start of the spring rotation planner (SRP). Alternatively this is equivalent to 54kgDM/cow or less than 20% of the farms 300kgDM/cow allowance of imported feed.
16. As APC remains below target, we will therefore be continuing to calve cows on East block, and feed silage while ground conditions are dry to the colostrums and milkers on the milking platform.
17. Key decisions for the week ahead:
  - a. From now on we will follow the SRP as we did the last calving. This process will be reported in more detail in next weeks notes and a summary of the rotation planner will be attached. We will hold the planned round length as determined in the SRP to ensure we spread the available pasture across all calving cows and finish the end of the first grazing round in late September.
  - b. With ground conditions continuing to be very firm underfoot, we feel that pasture damage will be minimal while allocating limited area of pasture (65m<sup>2</sup> per milking and colostrum cow).
  - c. Supplements will be needed to be fed in order to feed cows well, while still holding our planned SRP. As well baleage should also be well utilised during current relatively dry conditions.
  - d. With soil temperature rising by 0.7°C to 6.2°C over the past week, we have decided to start the application of nitrogen on the milking platform on Wednesday 5<sup>th</sup> August 2015. Whilst DM response per kg N applied will not be as great as later in the spring, lesser responses will be strategically valuable to lift APC and to allow us to better feed the cows on a pasture only diet as soon as we can.

Seven paddocks (N2, N6, N7, S2, S6, S9, S10) will receive 81 kg Ammonium Sulphate / ha (providing 25 kgN/ha and 11.7 kgS/ha), with paddock selection being based on the following criteria:

    - i. Newer pasture (mostly Shogun / hybrid perennial ryegrass expected to give better cool season growth responses than perennial ryegrass pastures);
    - ii. Positive growth rates over the past 2 weeks – ie actively growing;
    - iii. Primarily less than 2400kgDM/ha – and therefore 4-6 weeks till due for grazing (note N6 plated this week at 2488kgDM/ha);
    - iv. Predominantly drier / free draining soils on the North End of the farm – that are less prone to saturation if a consistent period of wet weather occurs;
    - v. Paddocks at the bottom of the wedge will not receive N at this point, but could receive their first application in 2-3 weeks if they meet the above criteria at that time (and APC is still significantly below target);
  - e. Remaining paddocks will receive N post grazing, with initial grazed paddocks allowed to 'recover' a little before N is applied.
  - f. Gibberellic Acid is planned for application once sufficient area is grazed on a daily basis – likely to be late August. Application will be constrained to areas that are within 3-5 days post grazing.
18. Given the above, the management for the next week will be:
  - a. Hold the milking and colostrum mobs to no more than 65 m<sup>2</sup> per head per day of pasture, adding in baleage to 'top up' feed allocation while we wait for APC to continue to increase across the milking platform.

- b. Continue to keep all stock away from the platform until they calve (there are 34 heifers left on the East block, the remainder are around the corner on another grazing block).
- c. Draft more springing MA and springer cows from the late calving cows at Jackies Block on Thursday 6<sup>th</sup> August 2015 and bring them back to East block.
- d. Pasture walks are continuing on a weekly basis for the rest of the season.

| LUDF Weekly report                            | 30-Jun-15      | 14-Jul-15   | 21-Jul-15        | 28-Jul-15         | 4-Aug-15      |
|---|----------------|-------------|------------------|-------------------|---------------|
| Farm grazing ha (available to milkers)        | 160            | 160         | 160              | 160               | 160           |
| Dry Cows on farm / East blk /Jackies/other    | 24/0/80<br>474 | 0/9/95/ 474 | 0/39/195/<br>328 | 0/137/120/2<br>68 | 0/144/205/119 |
| Culls (Includes culls put down & empties)     | 0              | 0           | 0                | 0                 | 0             |
| Culls total to date                           | 0              | 0           | 0                | 0                 | 0             |
| Deaths (Includes cows put down)               | 0              | 0           | 0                | 0                 | 0             |
| Deaths total to date                          | 0              | 0           | 0                | 0                 | 0             |
| Calved Cows available (Peak Number 560 )      | 0              | 0           | 16               | 55                | 106           |
| Treatment / Sick mob total                    | 0              | 0           | 0                | 2                 | 2             |
| Mastitis clinical treatment                   | 0              | 0           | 0                | 2                 | 2             |
| Mastitis clinical YTD (tgt below 64 yr end)   | 0              | 0           | 0                | 2                 | 4             |
| Bulk milk SCC (tgt Avg below 150)             | 0              | 0           | 0                | 0                 | 0             |
| Lame new cases                                | 0              | 0           | 0                | 0                 | 0             |
| Lame ytd                                      | 0              | 0           | 0                | 0                 | 0             |
| Lame days YTD (Tgt below 1000 yr end)         | 0              | 0           | 0                | 0                 | 0             |
| Other/Colostrum                               | 0              | 0           | 0                | 0                 | 30            |
| Milking twice a day into vat                  | 0              | 0           | 0                | 0                 | 69            |
| Milking once a day into vat                   | 0              | 0           | 0                | 0                 | 0             |
| Small herd                                    | 0              | 0           | 0                | 0                 | 0             |
| Main Herd                                     | 0              | 0           | 0                | 0                 | 69            |
| MS/cow/day (Actual kg / Cows into vat only)   | 0.00           | 0.00        | 0.00             | 0.00              | 0.00          |
| MS/cow to date (total kgs / Peak Cows         | 0              | 0           | 0                | 0                 | 0             |
| MS/ha/day (total kgs / ha used)               | 0.0            | 0.00        | 0.00             | 0.00              | 0.00          |
| Herd Average Cond'n Score                     | 0.00           | 0.00        | 0.00             | 0.00              | 0.00          |
| Monitor group LW kg WOW early MA calvers      | 0              | 0           | 0                | 0                 | 0             |
| Soil Temp Avg Aquaflex                        | 3.6            | 4.0         | 5.0              | 5.5               | 6.2           |
| Growth Rate (kgDM/ha/day)                     | 1              | -2          | 0                | 19                | 25            |
| Plate meter height - ave half-cms             | 11.3           | 10.7        | 0.0              | 13.3              | 14.3          |
| Ave Pasture Cover (x140 + 500)                | 2076           | 1993        | 0                | 2365              | 2502          |
| Surplus/[deficit] on feed wedge- tonnes       | [50.5]         | 0           | 0                | 0                 | 0             |
| Pre Grazing cover (ave for week)              | 3050           | 0           | 3100             | 3150              | 3200          |
| Post Grazing cover (ave for week)             | 1500           | 0           | 1600             | 1650              | 1650          |
| Highest pregrazing cover                      | 3050           | 0           | 3100             | 3150              | 3200          |
| Area grazed / day (ave for week)              | 0.26           | 0.00        | 0.04             | 0.04              | 0.24          |
| Grazing Interval                              | 615            | 0           | 4444             | 4444              | 667           |
| Milkers Offered/grazed kg DM pasture          | 0.0            | 0.0         | 0.0              | 0.0               | 0.0           |
| Estimated intake pasture MJME                 | 0              | 0           | 0                | 0                 | 0             |
| Milkers offered kg DM Grass silage            | 0              | 0           | 0                | 0                 | 0             |
| Silage MJME/cow offered                       | 0              | 0           | 0                | 0                 | 0             |
| Estimated intake Silage MJME                  | 0              | 0           | 0                | 0                 | 0             |
| Estimated total intake MJME                   | 0              | 0           | 0                | 0                 | 0             |
| Target MJME Offered/eaten (includes 6% waste) | 0              | 0           | 0                | 0                 | 0             |
| Pasture ME (pre grazing sample)               | 0.0            | 0.0         | 0.0              | 0.0               | 0.0           |
| Pasture % Protein                             | 0.0            | 0.0         | 0.0              | 0.0               | 0.0           |
| Pasture % DM - Concern below 16%              | 0.0            | 0.0         | 0.0              | 0.0               | 0.0           |
| Pasture % NDF Concern < 33                    | 0.0            | 0.0         | 0.0              | 0.0               | 0.0           |
| Mowed pre or post grazing YTD                 |                |             |                  | 0.0               | 0.0           |
| Total area mowed YTD                          |                |             |                  | 0.0               | 0.0           |

|   |        |     |        |       |       |
|---|--------|-----|--------|-------|-------|
| Supplements fed to date kg per cow (560 peak)       | 0.0    | 0.0 | 0.0    | 0.0   | 3.1   |
| Supplements Made Kg DM / ha cumulative              | 0      | 0   | 0      | 0     | 0     |
| Units N applied/ha and % of farm                    | 0      | 0   | 0      | 0     | 0     |
| Kgs N to Date (whole farm)                          | 0      | 0   | 0      | 0     | 0     |
| Rainfall (mm)                                       | 9.4    | 29  | 10.8   | 0     | 7.8   |
| Aquaflex topsoil rel. to fill point target 60 - 80% | 90-100 | 0   | 90-100 | 80-90 | 80-90 |

Farmers or their managers and staff are always welcome to walk with us. Please call to notify us of your intention and bring your plate meter and gumboots. Phone SIDDC – 03 423 0022.

---

Peter Hancox, Farm Manager, Natalia Benquet, Charlotte Westwood.