

# Lincoln University Dairy Farm - Farm Walk notes

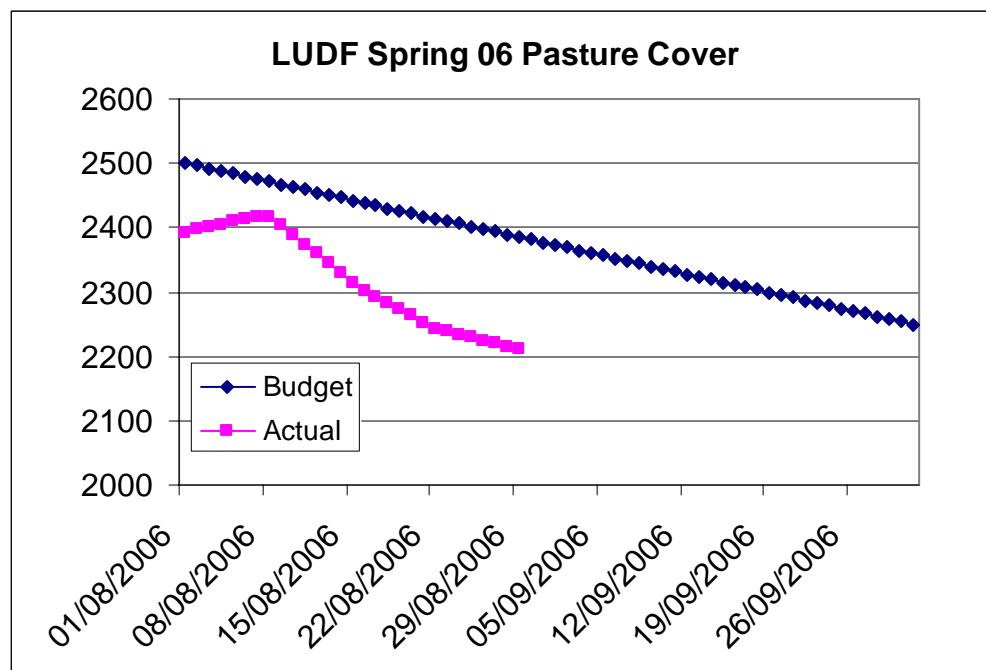
Tuesday 29<sup>th</sup> August 2006

## Critical issues for the short term

1. Watch feed allocations to ensure September full-feeding is NOT compromised in any way.
2. Consider putting any light or struggling dries one-to-a-paddock for a while
3. Keep magnesium up to the milkers and springers.
4. Ensure staff team gets the necessary leave and days off, including the Manager.

### Summary of Key Factors affecting Grazing Management & Animal Performance

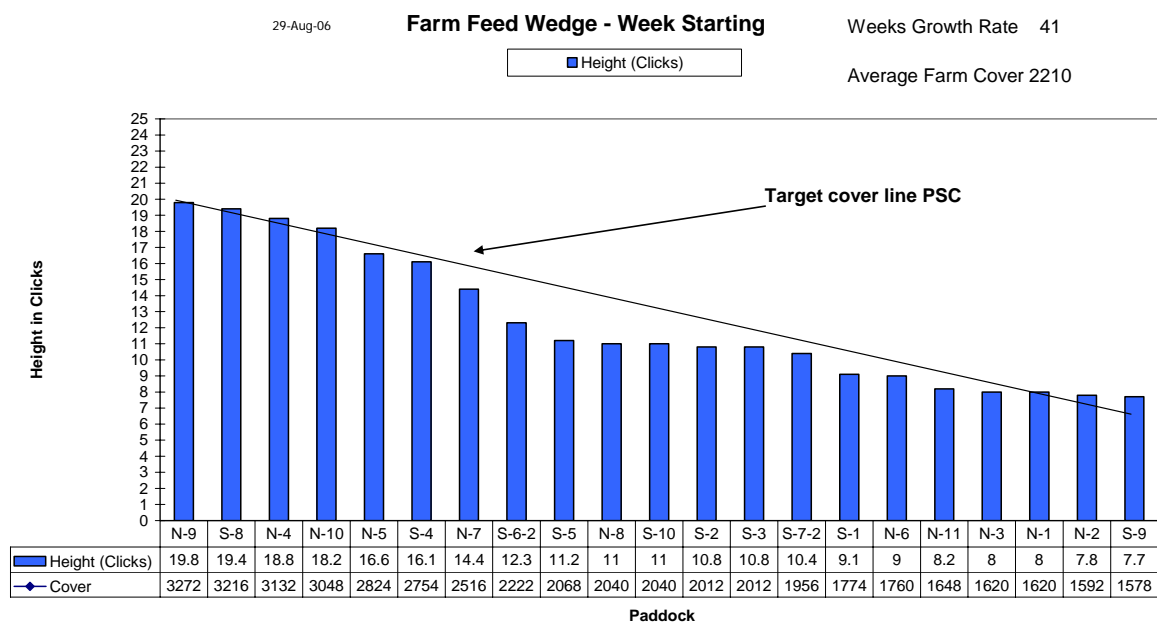
1. Soils are finally starting to drain from the top layer of soil. Cows are back on top of the paddocks, and given the positive weather forecast this morning, should be good for the next couple of weeks.
2. SOIL TEMPS are lifting, 7.2 °C at this morning's walk.
3. Total AREA USED this week was 21 ha, equating to a 54 day round for the week.
4. PASTURE GROWTH over the last week has averaged 41kg DM/ha (last week was 25) and is for the first time this season ABOVE our target for the 2<sup>nd</sup> half of August of 35 kg/day. Our target growth of 45 kgDM/ha/day for early September looks ON.
5. Ave PASTURE COVER has dropped by 70 kgDM/ha in the last week, from 2313 kgDM/ha down to 2243 kgDM/ha. We are about 175 kgDM/ha/day below target, BUT the difference is now holding, rather than increasing.
6. Milk PRODUCTION is slowly lifting, last week ave 1.58 kgMS/cow, or 3.9 kgMS/ha.
7. Milker Grazing residuals – spot on target residuals (7 clicks or 1480 kgDM/ha).



8. We check the measured change in cover each week that we get using the platometer, by checking our feed demand for the week, and adding back pasture growth for the week.
  - Change in cover = 70 kg DM/ha

- i.e. Demand = average of 411 milkers for the week eating 14 kgDM = 5754kgDM/day = 37kgDM/ha.
- Supply = pasture growth of 41 kgDM/ha.
- Given an acceptable margin of error associated with these measurements, these appear to equate.

- The feed allocation is being lifted by close to 1kg/cow per week for the next 4 weeks. Some feedback to us has suggested that our feed allocations are too low, but they are based on a range of field trials, so we are sticking with them. Remember that high ME pastures deliver more available energy for milk production and maintenance.
- The cows are extremely settled in the paddock. They are cleaning the paddocks out very well, in some cases to below 7 clicks (1480 kgDM/ha).
- We have noticed that any paddocks grazed in the WET are now holding any further rainwater much more than adjoining ungrazed paddocks. Must be a physical feature, and it will be useful to monitor the DIFFERENCE in pasture growth that might result.



- The feed wedge has a hole in it, approximately two weeks out. This does not concern us, as we expect pasture growth to improve markedly through that period. Our spring feed budget was built using growth of 45 kgDM/ha/day for the first two weeks of September, and for 55kgDM/ha for the second half of September. At this early stage, we expect to exceed these targets.
- We are continuing NITROGEN applications at 40 units N per ha to the three remaining paddocks that have not had a dressing yet, and to one more paddock at 20 units, receiving its second dressing this spring. We will review N use for September at our next Farm Walk in a week's time. We can see visible N-responses in most paddocks.
- Colostrum cows and the sick mob are continuing being milked OAD. We have no adverse effects from this to date.
- We now have three mobs each of 40-45 calves put out on pasture, with temporary shelter using 5 medium square straw bales. All calves are on OAD feeding, and are doing well.

The next WEEKLY farm walk is on **TUESDAY 5<sup>th</sup> September 10.00am.**

### Management Group

Peter Hancox (Farm Manager) Peter Gaul (SIDDC) and Adrian van Bysterveldt (Dexcel).

# Lincoln University Dairy Farm - Farm Walk notes

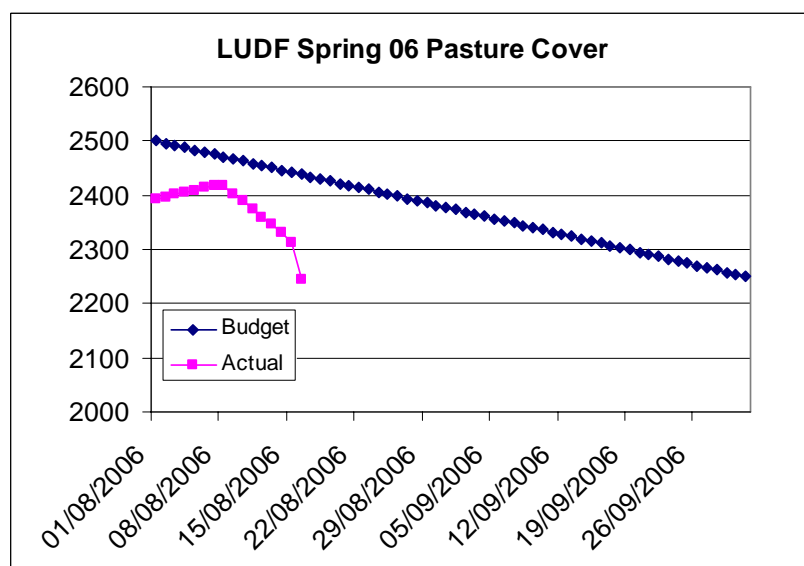
Tuesday 22<sup>nd</sup> August 2006

## Critical issues for the short term

1. Reduce or minimise pasture damage by on-off grazing.
2. Keep magnesium up to the milkers and springers, difficult in wet weather.
3. Ensure staff team understands WHY we are choosing the current grazing options.
4. Carefully allocate feed to ensure the fine balance between underfeeding and maintaining sufficient feed for the next 2-3 weeks.

### Summary of Key Factors affecting Grazing Management & Animal Performance

1. Soils continue to be water logged after another 26mm rain on Monday of this week. With each rain, even small ones, adjacent drains run backwards, bringing water ONTO the property!
2. SOIL TEMPS probably lifted late last week with 4 great sunny growing days, but have dropped again with the latest rain, and this morning averaged 5.1 degrees C.
3. Total AREA USED this week was 19 ha, keeping us on track for our 56 day 1<sup>st</sup> rotation.
4. PASTURE GROWTH over the last week has averaged 25kg DM/ha (last week was 17) and our target for the 2<sup>nd</sup> half of August was 35 kg/day. We are falling behind!
5. Ave PASTURE COVER has dropped by 70 kgDM/ha in the last week, from 2313 kgDM/ha down to 2243 kgDM/ha. We are almost 200kg/ha BELOW target.  
*NOTE: The wet weather and soggy conditions make reliable use of the plate meter difficult, and we suspect the average cover has not dropped by quite this much. We will check again next week and confirm this week's result then.*
6. Milk PRODUCTION is stable at about 1.54 kgMS/cow, or 3.1 kgMS/ha.
7. Milker Grazing residuals – despite the wet, we are achieving target residuals (7 clicks or 1480 kgDM/ha).

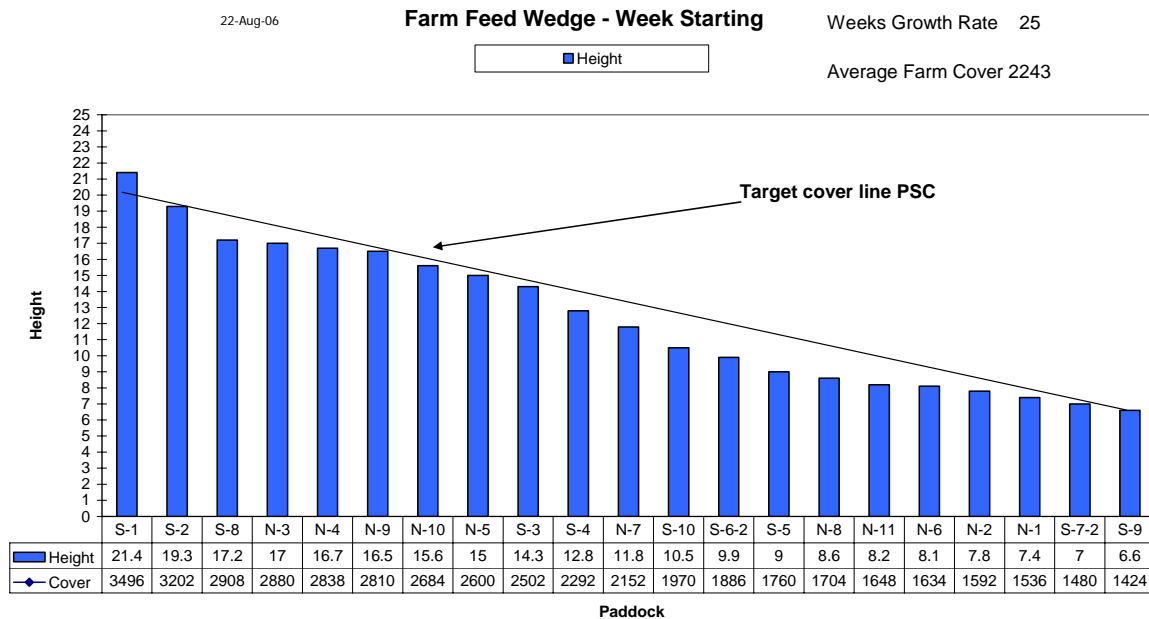


8. The drop in Ave pasture cover below our target is a concern. We checked this by comparing what we measured with the platemeter against a simple calculation of pasture supply and animal demand.

- ie Demand = average of 328 milkers for the week eating 13 kgDM = 4264kgDM/day = 26kgDM/ha.
- Supply = pasture growth of 25 kgDM/ha.
- These appear to equate, and if so, how come we dropped cover by 70kg/ha or 10kg/ha per day ??

As we reported in last weeks FarmWalk Notes, some of this might be poorer utilisation, and/or inaccurate measurement, or a combination of both.

- The increased deficit is a concern but at this stage soil conditions are still considered too wet to consider feeding out silage. Silage feeding to the milkers will be considered when soil conditions improve and there is little risk of soil damage and also a high probability of most of the silage being eaten by the cows, AND pasture growth rates in September will be higher than now and justify any substitution. We will continue to tightly control allocations to cows, and on/off graze the milkers whenever required, standing them in a sacrifice paddock earmarked for renovation in mid-late spring.
- We have now completed the first-round application of NITROGEN, as 85 kg urea/ha, delivering 40 units of N. We can already see results from the first lot applied 2<sup>nd</sup> Aug.
- The feed wedge shows good shape, our high cover in July is paying dividends now.



- You may query our “tight” feed allocation to milkers. The milking cows were ALLOCATED an average of 13 kg DM/cow/day of pasture for the week, lifting to 13.5 kg this current week. The ME of our pasture currently is over 12.5 so this means that the cows are potentially getting intakes of 156 ME, sufficient for maintenance and up to 1.5 kgMS per day.
- Colostrum cows and the sick mob are being milked OAD and on wet nights are being stood off the paddocks on either the concrete yards or a waste corner.
- The first mob (n=45) of calves have been put out on pasture, with temporary shelter using 5 medium square straw bales. All calves are on OAD feeding.

The next WEEKLY farm walk is on **TUESDAY 29<sup>th</sup> August 10.00am.**

**Management Group**

Peter Hancox (Farm Manager) Peter Gaul (SIDDC) and Adrian van Bysterveldt (Dexcel).

# Lincoln University Dairy Farm –Farm Walk notes

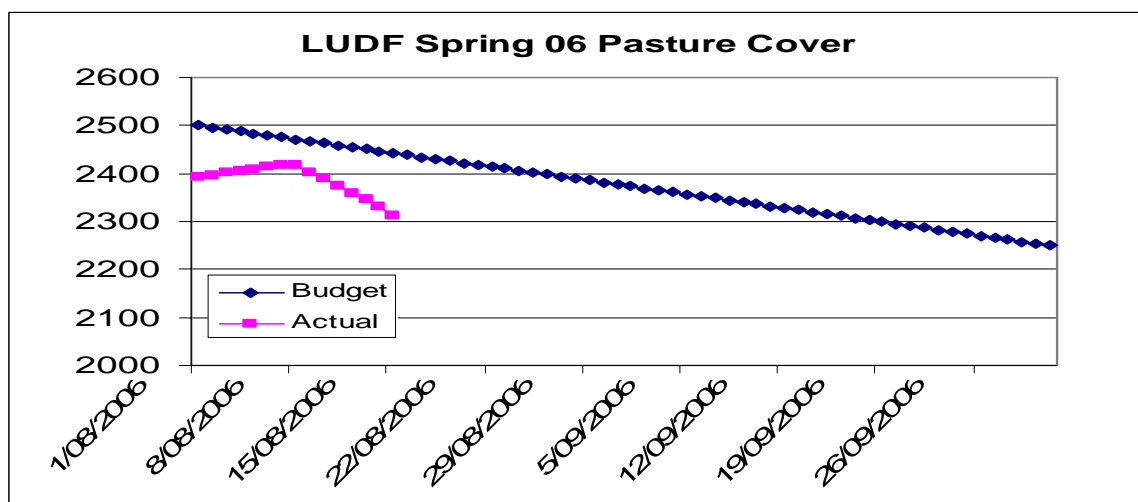
Tuesday 15<sup>th</sup> August 2006

## Critical issues for the short term

1. **Supplementation of all cows with Magnesium including those on runoffs.**
2. **Maintaining a tight control on feed allocation on the milking platform.**
3. **Limiting pugging damage to sacrifice paddock which is due for re-grassing**

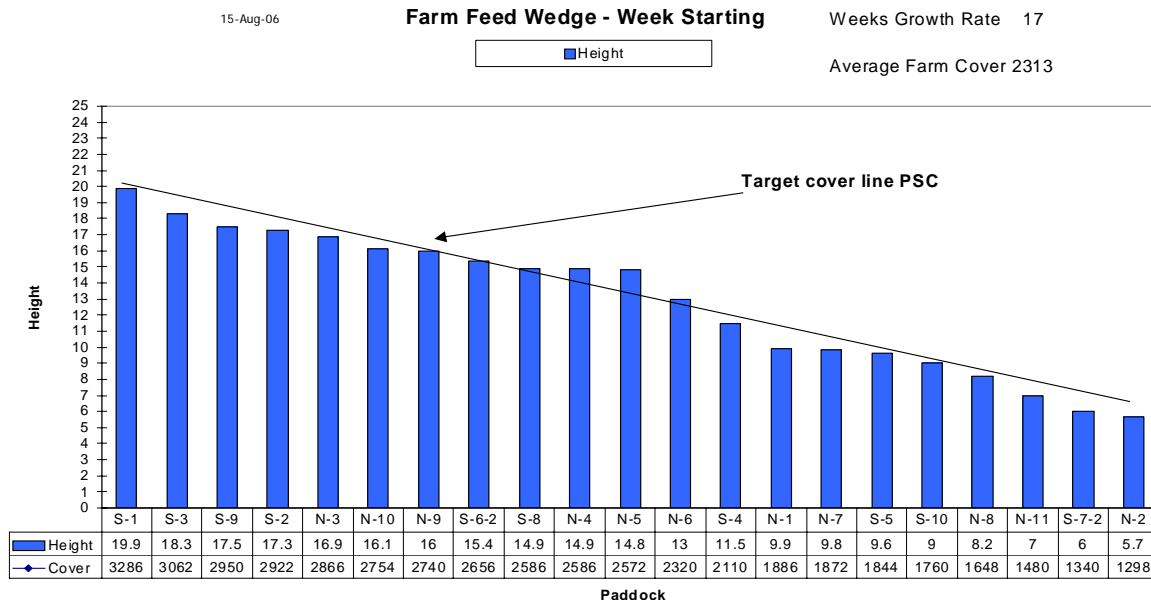
### Summary of KEY INDICATORS for Grazing Management and Animal Performance

4. Soils are still water logged after another 68mm rain this week, ground water tables have risen so much that numerous springs are now visible across LUDF. Rainfall since 1 May is now 540 mm. Our average annual expected rainfall is 666mm.
5. Soil temperatures have dropped to 6.3 degrees C over the week after several days of very cold rain (7.2 degrees C last week).
6. Total area used this week was 17 ha (we are aiming to achieve a 56 day first round). The perennial pastures seem to have more pasture on them than the plate meter indicated.
7. PASTURE GROWTH over the last week has averaged 17 kg DM/ha (last week was corrected to 21).



8. Last weeks average PASTURE COVER was recalculated down and this week's has fallen further to 2313. This is now over 120 below budget target. This pasture cover deficit may not be as great as the plate meter is suggesting. The latest pasture analysis results continue to show that the % DM is over 20%. The drop in cover is greater than expected and is more than measured-growth less cow-demand. The most likely explanation is that pasture cover was lost due to being walked into a very wet soil. This is despite pugging damage being limited to a single sacrifice paddock.
9. The deficit is a concern but at this stage soil conditions are too wet to consider feeding out silage. We will continue to tightly control allocations to cows, on/off graze and follow the cows with 40 kgs N/ha. Silage is being fed to dry cows to keep them away from the milking platform as long as possible. Silage feeding to the milkers will be considered when soil conditions improve and there is little risk of soil damage and also a high probability of most of the silage being eaten by the cows, AND pasture growth rates in September will be higher than now and justify the substitution.

10. The milking cows were allocated an average of 12.5 kg DM/cow/day of pasture for the week. The ME of our pasture currently is over 12.5 so this means that the cows were potentially getting intakes of 156 ME. This is lifting by another 0.6 kg DM this week. Current /cow production is estimated at 1.35kgs MS/cow/day and rising.
11. Springer's (grazing on the East Block), Colostrum cows and the sick mob are being milked OAD and are being stood off the paddocks at night on either the concrete yards or a waste corner. The milkers have also been on/off grazed, with S7 the lowest performing paddock on the farm being their sacrifice paddock. This paddock will get proper drainage and contouring when it is re-grassed this spring.
12. OAD milking plus OAD feeding of the calves has freed up enough time for staff to be able to manage the on/off grazing.
13. Milk fever cases have been minimal with only two down cows and three sub-clinical cases. We have had an increase in difficult calvings over the last week but have had no problems with paralysis yet. The Somatic cell count has dropped, cases of mastitis are reducing and clinical cases are clearing with the recommended treatment regime.
14. The rate of calving is almost exactly that predicted by last year PD. To the 15 August we have 382 and we have again achieved 50% calved within 15 days of PSC.



15. The pasture wedge is now almost at our target shape. The three paddocks at the bottom of the wedge have been grazed lower than the target of 7 “clicks” This has occurred because our average farm cover was below target at PSC and we needed to hold the cows very tight at the start and as a result they have grazed lower than normal milking cows. However we have left some paddocks in the middle of the wedge above to target line so that we can keep round length a little longer before we get back to the recently paddocks. The spring application of EcoN will continue to be applied to grazed paddocks on the South Block. Where possible we will use the truck but if soil conditions are too soft we will apply by helicopter (same cost)

The next WEEKLY farm walk is on **TUESDAY 22<sup>nd</sup> August 10.00am.**

**Management Group**

Peter Hancox (Farm Manager) Peter Gaul (SIDDC) and Adrian van Bysterveldt (Dexcel)

# Lincoln University Dairy Farm –Farm Walk notes

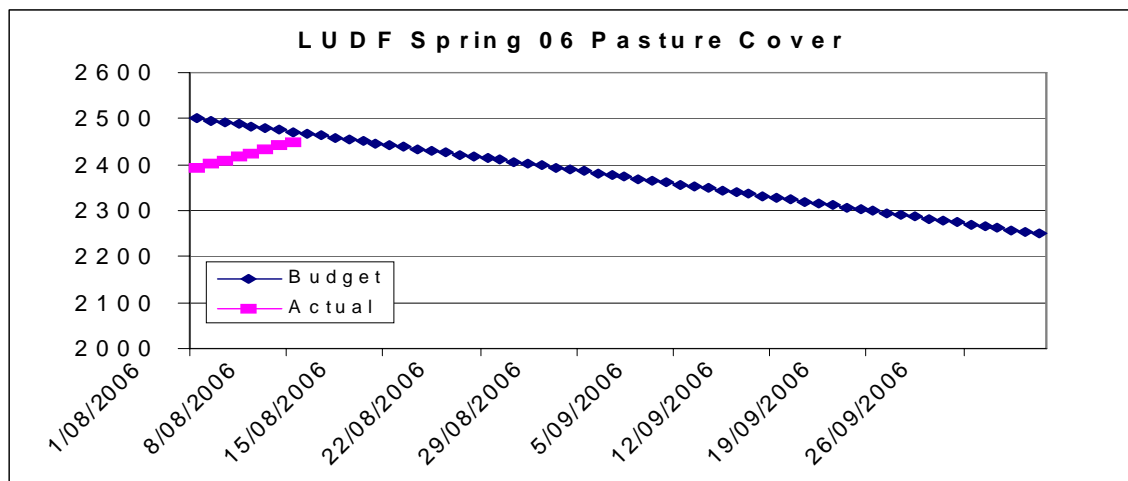
Tuesday 8<sup>th</sup> August 2006

## Critical issues for the short term

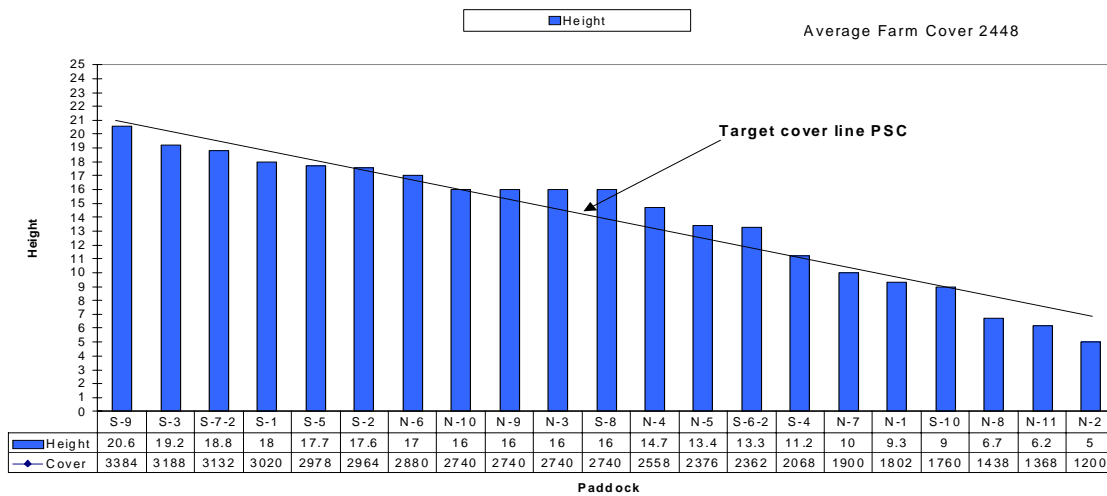
1. **Supplementation of all cows with Magnesium including those on runoffs.**
2. **Maintaining a tight control on feed allocation on the milking platform.**
3. **Limiting pugging damage by ON-OFF grazing and using sacrifice paddock which is due for re-grassing**
4. **Careful watch and control of mastitis – especially new calvers**

## Summary of KEY INDICATORS for Grazing Management and Animal Performance

5. Soils are again water logged after 60mm of rain. ALL moisture now sits on the surface!!
6. Soil temperatures have risen over the week and even after 3 days of cold rain they are up from 5.8 degrees C last week to 7.2 degrees C this week.
7. Total area used this week was 15ha, which was slightly less than budgeted (we are aiming to achieve a 56 day first round). Some of the grazed paddocks seemed to have more pasture on them than the plate meter indicated.
8. PASTURE GROWTH over the last week has averaged 27 kg DM/ha (last week 15).



9. Average PASTURE COVER has risen to 2448 kg DM/ha and is close to our target cover for 8 Aug of 2471 and is above last week's cover of 2393.
10. The rate of calving is almost exactly that predicted by last year PD. To the 8<sup>th</sup> August we have 264 cows calved (our budgeted number was 261)
11. Milking cows were restricted to 12 kgs DM/cow/day. The ME of our pasture currently is over 12.5 so this means that the cows are potentially getting intakes of 150 ME – sufficient for maintenance plus up to 1.3 kgMS/day.
12. The milking mob is currently 50% heifers and the average /cow production is estimated at 1.2kgs MS/cow/day (actual production numbers are not possible to calculate this week but we expect to be able to be more accurate next week).
13. This year we have had the colostrum cows on once a day milking. This has freed up valuable staff time to manage the on/off grazing, pasture management, stock drafting, and calving and other necessary jobs.



14. The PASTURE WEDGE is now almost at our target shape. The three paddocks at the bottom of the wedge have been grazed lower than the target of 7 “clicks” This has occurred because our average farm cover was below target at PSC and we needed to hold the cows very tight at the start and as a result they have grazed lower than normal milking cows. However we have left some paddocks in the middle of the wedge above the target line so that we can keep the round length a little longer before we get back to the recently grazed paddocks.
15. To protect pastures at all times, ON-OFF GRAZING has been required for all the cows on the milking platform and East Block since Sunday evening. They have been held on the concrete areas around the milking shed and in small sacrifice areas. On/off grazing will continue as long as required to minimise pugging damage.
16. NITROGEN was applied last week at 40 kgs N over 50% of the farm. The paddocks targeted are those in the bottom half of the Pasture Wedge that are currently not being grazed by the cows. This also includes two paddocks in the South Block, which did not get EcoN in May because they had not been grazed. We will follow the cows with the same rate of N as they graze through the rest of the paddocks over the next month.
17. EcoN is being applied to grazed paddocks on the South Block.
18. MASTITIS is higher than previous seasons. Cases in newly calved cows have been high and SOMATIC CELL counts in the milking mob have risen. We currently have 30 cows in the treatment mob. Samples have been sent for bacto and antibiotic sensitivity analysis. All the samples were Strep Ubrius (environmental), which are being controlled by the current antibiotic. We have been finding that the cases are only clearing up when the treatment program is extended by 1 to 2 days. We will be monitoring this closely.

The next WEEKLY farm walk is on **TUESDAY 15<sup>th</sup> August 10.00am.**

### Management Group

Peter Hancox (Farm Manager) Peter Gaul (Farm Business Manager, for SIDDC) and Adrian van Bysterveldt (Dexcel).

# Lincoln University Dairy Farm –Farm Walk notes

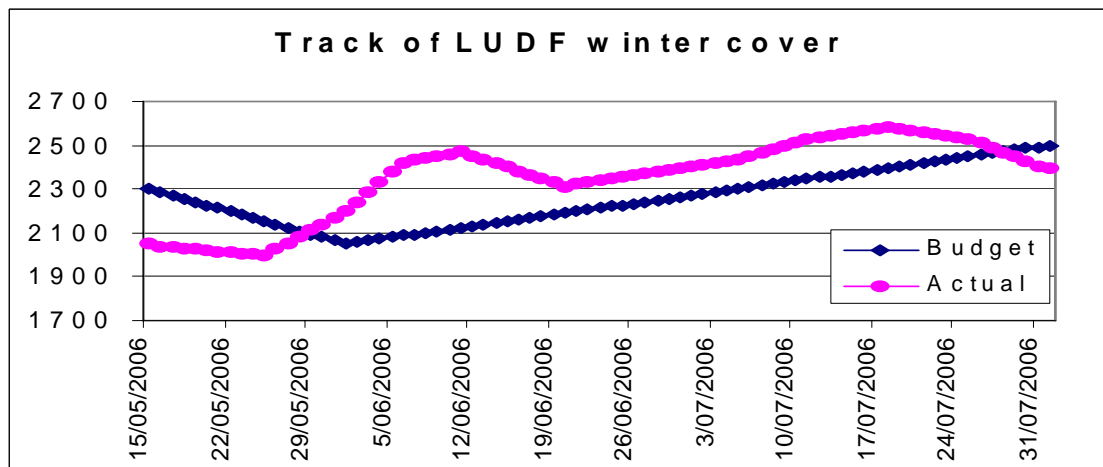
Tuesday 1<sup>st</sup> August 2006

## Critical issues for the short term

1. **Supplementation of all cows with Magnesium including those on runoffs.**
2. **Maintaining a tight control on feed allocation on the milking platform.**

### Summary of KEY INDICATORS for Grazing Management and Animal Performance

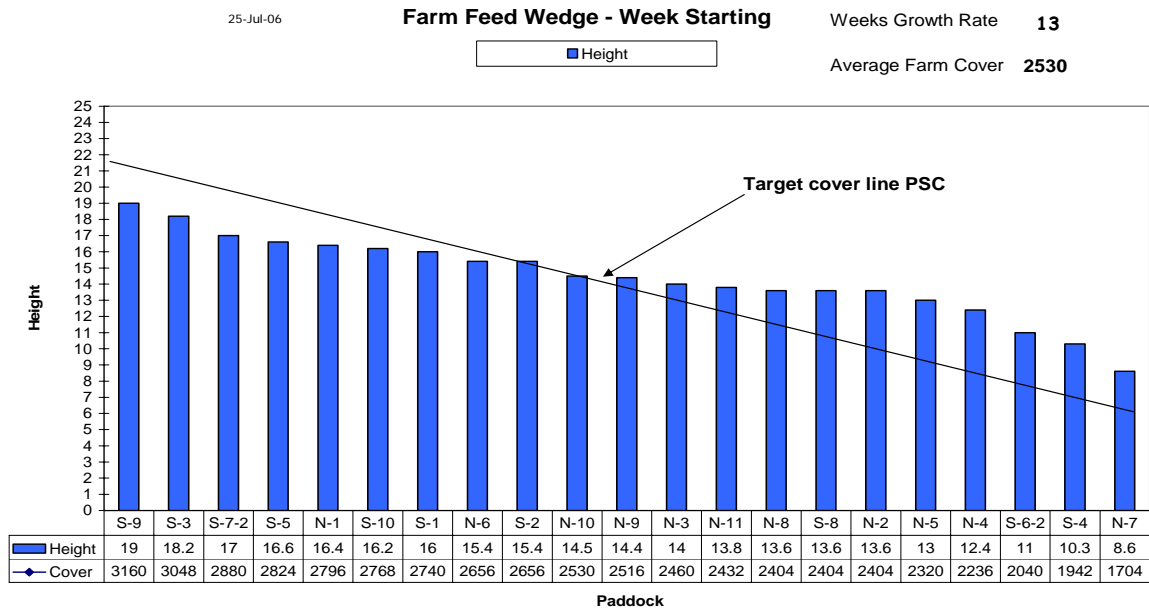
3. Soils have firmed up and are now allowing us to restrict the area to each mob. Springers, Colostrum and milkers are achieving residuals of between 5 & 6 “clicks” or 1200 to 1340 kgs DM/ha. We are restricting milking cow intakes because actual pasture cover is lower than target.
4. PASTURE GROWTH over the last week has averaged 15 kg DM/ha. (last week 13). These growth figures are still well below the 5 year average recorded on the farm.
5. Soil temperatures have risen from 5.2 degrees C to 5.8 degrees C.



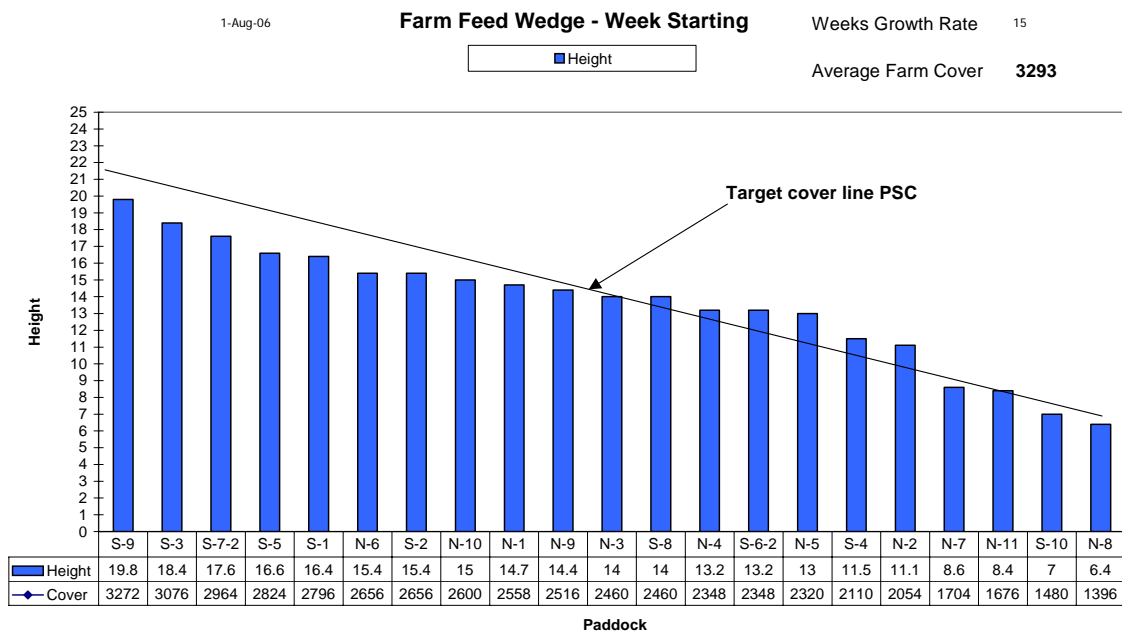
6. Average PASTURE COVER has dropped to 2393 kg DM/ha and is below our target cover for Planned Start of Calving of 2500.
7. The average pasture cover has dropped below target because of several things;
  - The need to quickly graze off two paddocks that had not been grazed since early May and had gone yellow at the base. These two paddocks were grazed with Dries and Springers and target residuals of been 6 & 7 clicks have been achieved.
  - Milkers and Colostrum cows have been grazing paddocks lower in the feed wedge to manipulate the pasture wedge closer to the target shape of a true wedge.
  - Calving has been occurring at a faster rate than anticipated. To the 1 August we have had 165 animals calved compared with a budgeted number of 146.
  - Pasture Growth has continued to be lower than average.

The extra grazings have resulted in 15.5 ha grazed compared with a target of 13 ha for the week, however the pasture wedge shape has got closer to our target as shown in the two graphs below.

## 25 July Pasture Wedge



## 1 August Pasture Wedge



8. We are currently grazing N1 to complete the manipulation of the wedge shape.
9. We will also be grazing about 20% of S4 with the dry mob before they return to their runoff. This part of S4 was not grazed in May due to the very wet soil conditions. The rest of the paddock will remain un-grazed until late in the first round

10. During this week we will be limiting stock on the milking platform to only the calved cows. This should help the average farm cover to return close to our target for the 7 Aug. Milking cows will also be restricted to 12 kgs DM/cow/day. The ME of our pasture currently is over 12.5 so this means that the cows are getting intakes of 150 ME. This is sufficient for the expected production levels of 1.6 kgs MS/cow/day given that the cows will also be losing weight at this time to support this production. These allocations will increase each week.
11. Nitrogen will be applied at the rate of 40 kgs N over 50% of the farm. The paddocks targeted are those in the bottom half of the Pasture Wedge that are currently not being grazed by the cows. This also includes paddocks in the South Block, which did not get Eco-n in May because they had not been grazed. We will follow the cows with the same rate of N as they graze through the rest of the paddocks over the next month.
12. We are applying the Nitrogen fertilizer earlier (about 2 weeks) and more extensively because our revised feed budgets show that we soon run out of feed on our runoffs and all the cows will come home earlier than originally planned. This will place a greater demand on the milking platform.
13. Dry cows and springers will be allocated maintenance levels of feed intakes. They are now too close to calving to be able to influence Condition Score. The late calving cows have not been condition scored this week.
14. We are attempting to resolve the expected feed deficit in September by carefully rationing pasture, and by applying nitrogen strategically. The lack of pugging damage done over the winter on the milking platform is expected to make this much more likely to happen. We are keeping our small amount of supplements in reserve.

The next WEEKLY farm walk is on **TUESDAY 8<sup>th</sup> August 10.00am. (Weather permitting)**

### **Management Group**

Peter Hancox (Farm Manager) Peter Gaul (SIDDC) and Adrian van Bysterveldt (Dexcel)