

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 25 April 2017

LUDF – focus for 2016/17 Season: Nil-Infrastructure, low input, low N-loss, maximise profit.
Farm system comprises 3.5 cows/ha (peak milked), Target up to 170kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1 million and Target production of over 500kgMS/cow (>100% liveweight in milk production).

Critical issues for the short term

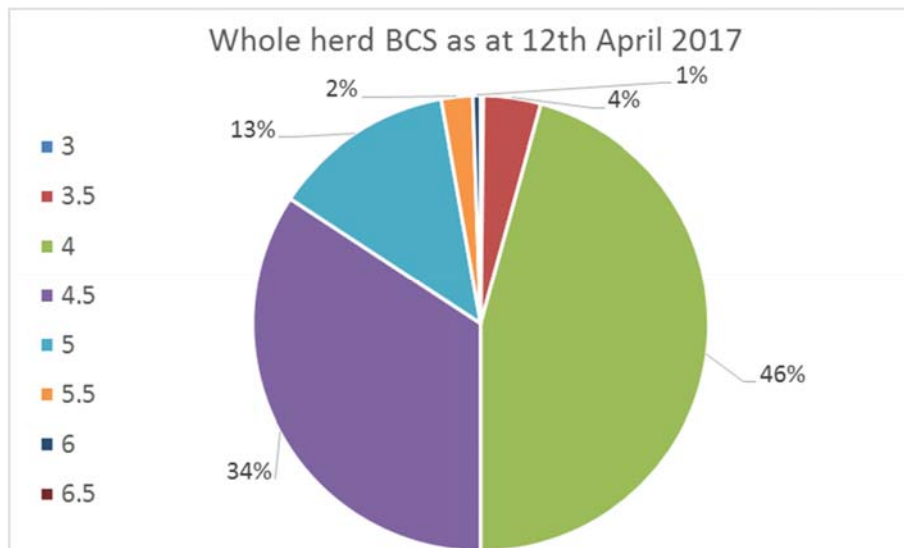
1. **Observe grazing behaviour of herd as fodderbeet has been introduced into the diet.**
2. **Hold the rotation length to minimum of 35 days as we head later into the autumn**
3. **Set the farm and herd up for next season with round length and BCS monitoring and management**
4. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production.**
5. **Monitor cow BCS changes.**

Key Numbers - week ending Tuesday 25 April 2017

Ave Pasture Cover	2656 kgDM/ha	Pasture Growth Rate	54 kgDM/ha/day
Round length	40 days	Ave Supplement used	7.92 Kg/DM/Day - average of: 6.35 kgDM/cow/day silage + 1.57 kgDM fodder beet/cow/day
No Cows on farm	541 (532 in milk)	Ave Soil Temp (week)	11.8°C
Kg MS/cow (546 cows)	1.5	SCC	157,000
Milk Protein : Fat ratio	0.77	Protein: 4.70%	Fat: 6.08%

Herd Management

6. A total of 541 calved cows are on farm. Of those 532 are in milk and the rest have been dried off. There are 2 milking herds, the small herd comprises 150 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13th January 2017) and the large herd is 347 mixed age cows and heifers, primarily later calvers and in BCS 4.5 or above. Slight preferential grazing continues for the small herd (ie grazing the first part of most paddocks which are then generally followed by the main herd)
7. There are 532 cows going into the vat, with 497 cows on twice a day milking, 35 once a day.
8. There were no new cases of mastitis over the past week (70 clinical cases season to date vs 92 cases at the same time last season).
9. This week, there were 5 new cases of lameness (185 cases season to date vs 173 cases same time last year).
10. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
11. DCP is being supplied both through water troughs and also dusted on silage.
12. Average herd liveweight (whole herd) for the week was 505 kgLWT, 3 kg higher than as last week. The monitor group (281 early calving MA cows) was 502 kgLW, also up 3kg compared with last week.
13. All cows in the herd have been BCS on the 12th April. The average for the herd has remained at 4.3 (same as last month), however there was a small shift of cow number towards higher BCS groups.

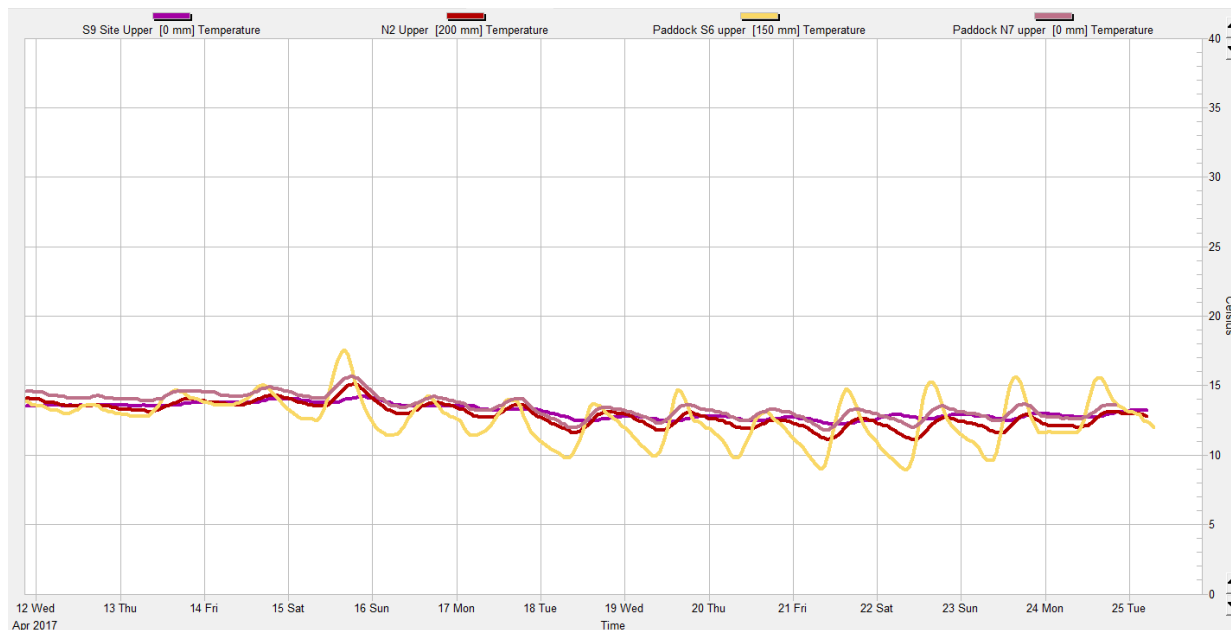


14. 9 cows have been dried off: 5 low BCS early calving cows and 4 lame cows. They have remained on the platform.
15. Calves have been weighed and drenched and have received the Lepto booster vaccination and a copper bullet in readiness to be moved to the young stock rearing facilities in Silverwood where they'll be wintered on fodder beet.
16. R2 heifers will be weighed and receive the Lepto vaccine, copper bullet and drench on the 27th April in readiness to go into the fodder beet for winter.

Growing Conditions

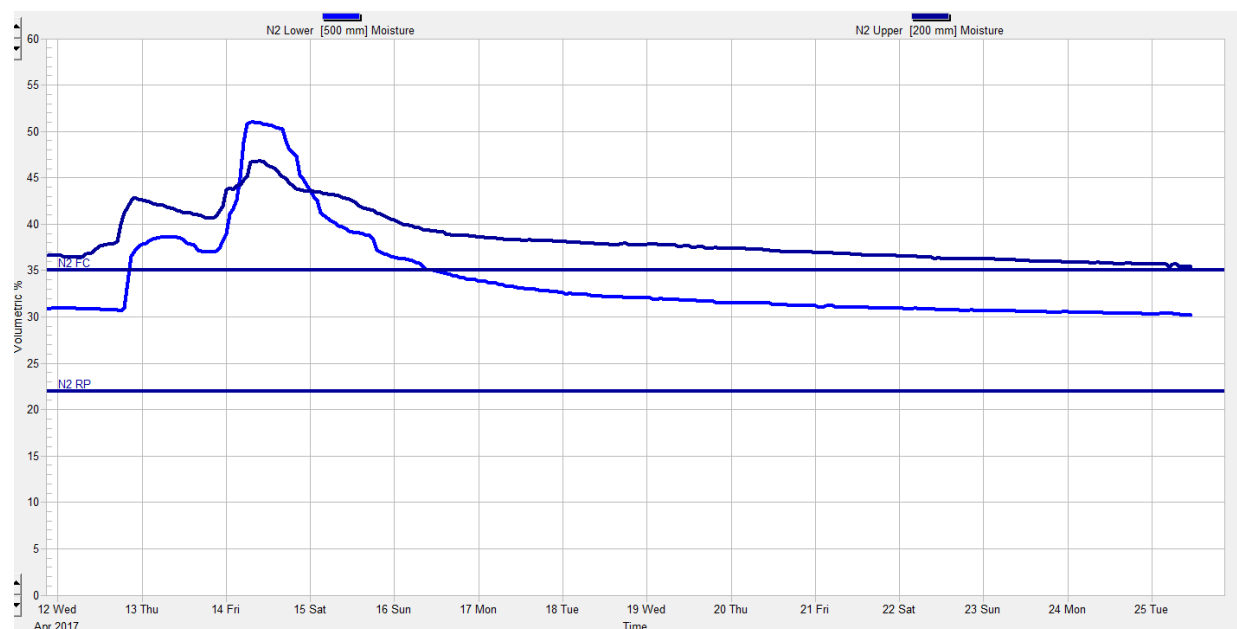
17. The average 9 am soil temperature for the past week has decreased 1.4°C to 11.8°C. Soil temperatures are now the same as this time last year.

Figure 1: Soil temperature history for the last 2 weeks



18. There has been no rain for this week. Soil condition remain wet although less than a week ago.

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



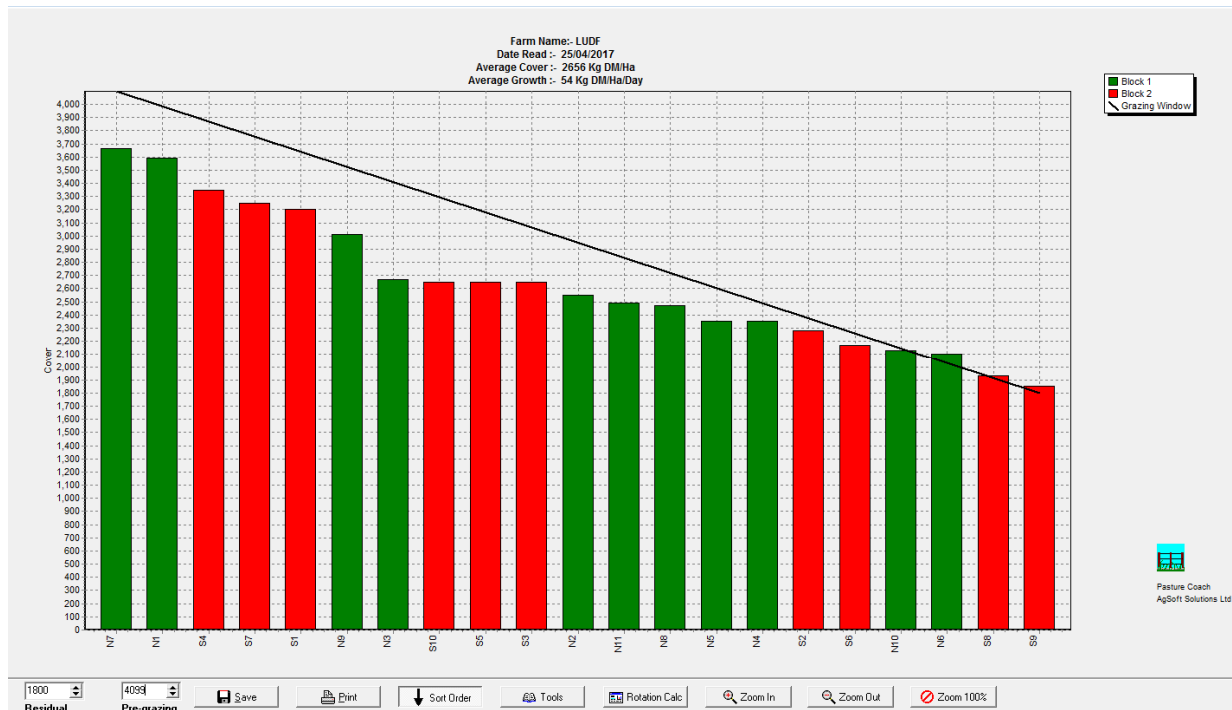
19. A total of 173kgN/ha have been applied to the platform for the season. The N application finished 1 week ago.

Pasture and Feed Management

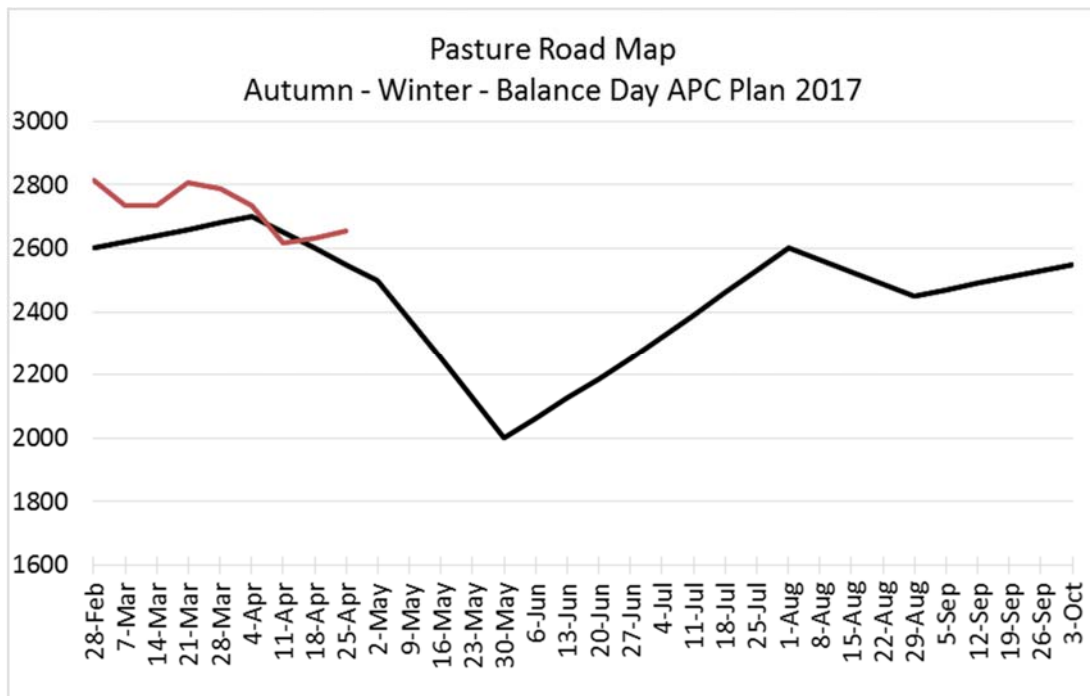
20. Cows have managed a 40.8 day round this week using 6.35 Kg DM/cow/day silage fed and 1.57 Kg DM fodder beet/cow/day average for the week (a small increase from the 1.3 kgDMbeet/cow/day of last week).
21. To try and get the whole herd eating fodderbeet, this week the cows were back fenced in their night grazing area after morning milking and then fed fodder beet before the silage. The intent was to stimulate fodder beet uptake by removing additional pasture offered at this time of the day.
22. There have been no more animal health issues related to fodder beet feeding.
23. Last week it was estimated about 30% of the herd were not eating fodder beet. This seems to have drop to more like 20% this week, however this remains a significant number of animals not eating fodderbeet. At present it appears as though the remainder of the herd may be unlikely to take up eating fodder beet while milking this autumn.
24. Over the next 2 weeks, the plan is to increase the fodder beet offered to 3 kg DM/cow/day. As only 80% of the herd is eating the crop, this means about 5 kgDM/cow/day for those animals that are eating it.
25. Cows will be re-transitioned when they get to the wintering block to ensure that the remaining 20% of the herd does go onto the crop and consumes it through winter. There is a plan B in place for those cows that do take the crop up for wintering either.
26. In terms of the pastures, in general, there is no visually evident loss of pasture quality. Half of paddock S5 (our newest regrassed paddock) has some decay at the bottom of the sward as cows were taken out of the paddocks when the wet weather hit (to avoid pugging damage). Paddock S6 also has areas where there is decay at the bottom of the sward, this paddock is particularly hard to graze down well due the dock infestation present there.
27. Rising Plate Meter data collected on the farm walk continues as an average of 2-3 plate meters and some discussion on the likely available feed that the herd will consume. This change in approach (since early February 2017) has provided a more realistic data set, including APC. Pasture growth however remains a challenge to explain.
28. Pasture quality from samples collected on 18th April showed:
 - a. Average of 13.2% DM (after 2 consecutive weeks at 10%).
 - b. Energy content of 12MJME/kgDM

- c. Protein levels at 19.5 %
- d. Average NDF% of 39%

Figure 3: This week's feed wedge



29. The demand line on the pasture wedge graph is calculated as follows:
 - a. 541 cows (dry stock remains on platform) on 160 ha: 3.4 cows/ha.
 - b. In terms of round length, we plan round length for the coming week is 40 days over 160 ha or 4 ha/day
 - c. The dry matter intake for the current level of milksolids production is around 17 kgDM/cow/day
 - d. Total demand: 17 kgDM/cow/day x 541 average cows for the week = 9,197 kgDM/day (57 kgDM/ha/day)
 - e. Demand (if supplied solely from pasture) of 9,197 kgDM/day from 4 ha/day requires 2,299 kgDM/ha available.
 - f. Assuming the target residual is 1,800kgDM/ha, target pregraze covers are 4,099 kgDM/ha. (1,800 kgDM/ha + 2,299 kgDM/ha = 4,099 kgDM/ha pregraze cover).
 - g. Target APC would therefore be $(4,099+1800)/2 = 2,949$ kgDM/ha
30. The feed wedge above is calculated as if cows were being fully fed on grass (17 kgDM/cow/day) and it estimates a feed deficit of around 52 tDM total.
31. Average pasture cover this week, however, has virtually remained the same as last week (2,656 kgDM/ha vs 2632 kgDM/ha). Yet cows have required 7.9 kgDM/cow/day (30 tDM for the week) to remain on the 40 days round.
32. Both comments above would suggest that rather than growing 56 kgDM/ha/day as per the Pasture Coach estimates, the farm grew around 31 kgDM/ha/day (17 kgDM/cow/day – 7.92 kgDM supplement/cow/day = 9.08 kgDM grass/cow/day. 9.08 kgDM grass/cow/day x 3.4cows/ha = 31 kgDM/ha/day)
33. Whether the growth is being overestimated or the covers are being overestimated is not clear, what is evident is it is only by adding in supplement that the farm has been able to hold onto the average pasture cover it requires (or remain above the target by about 100 kgDM/ha) as per the autumn cover trackers below.



Feeding Management for the coming week:

34. Considering the BCS data, weather forecast and the availability and costs of supplements, the following strategy is being followed:
 - a. Redrafting the animals in each herd. Next week, the small herd will become the high BCS, late calving cows and empties. They'll be used to tidy postgrazing residuals after the main herd grazes it.
 - b. Keep as many animals in milk as possible for the longest period possible (final dry-off date for this farm is usually around the 25-28th May). We have a higher than targeted average pasture cover that we are hoping will allow us to achieve this (plus cover our us for wet weather spells)
 - c. Only drop culls if the average pasture cover starts dropping too quickly
 - d. Continue drying cows off on autumn dry-off rules for BCS gains.
35. Quick calculations say that it is still profitable to feed this level of supplements to empty cows (17 kgDM/cow/day x 0.30\$/kgDM supplement = \$5.1/cow. At 1.5 kgMS/cow/day production, each cows is bringing \$9/cow/day)
36. In connection to the fodder beet transition, the current system of feeding the beet after morning milking before the silage while fencing the herd back into their night grazing area appears to be working better than feeding it after silage. All animals treated for acidosis seem to have gone back into the crop all right. There only remains the 20% that have not taken it up.
 - a. Ongoing observation of cows. Careful observation of the herds will be made moving forward, watching for signs of acidosis including rumen fill, cud chewing, dung consistency, evidence of a secondary milk fever and amount of milk being produced by each cow.
 - b. Cows that are suspected of showing signs of ruminal acidosis will treated and moved into the OAD mob
37. The aim is to hold to a 40 day round, requiring the ongoing feeding of fodderbeet and silage to reach this target. We are now entering the last round for the farm, so paddocks from now on will be getting their last grazing. So achieving the necessary residuals will remain a focus, as long the weather allows for this.
38. The amount of silage accompanying the fodder beet will differ on a paddock per paddock basis, based on residuals and cow behaviour and the silage will be fed before the fodder beet is being offered.
39. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day.

LUDF Weekly report	28-Mar-17	4-Apr-17	11-Apr-17	18-Apr-17	25-Apr-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	1/0/0/0	1/0/0/0	0/0/0/0	0/0/0/0	9/0/0/0
Culls (Includes culls put down & empties)	0	0	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	0	0	1	1	0
Deaths total to date	15	15	16	17	17
Calved Cows available (Peak Number 560...)	542	542	542	541	532
Treatment / Sick mob total	2	1	1	1	0
Mastitis clinical treatment	2	1	1	1	0
Mastitis clinical YTD (tgt below 64 yr end)	67	68	69	70	70
Bulk milk SCC (tgt Avg below 150)	176	146	149	173	157
Lame new cases	4	16	10	30	5
Lame ytd	124	140	150	180	185
Lame days YTD (Tgt below 1000 yr end)	3794	3962	3962	4627	4837
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	522	501	502	483	497
Milking once a day into vat	18	40	38	57	35
Small herd	159	150	154	148	150
Main Herd	363	351	349	335	347
MS/cow/day (Actual kg / Cows into vat only)	1.72	1.64	1.53	1.50	1.50
Milk Protein/Fat ratio	0.81	0.79	0.76	0.79	0.77
Milk Fat %	5.64	5.76	5.92	5.95	6.08
Milk Protein %	4.55	4.56	4.57	4.70	4.70
MS/cow to date (total kgs / Peak Cows 560)	433	445	454	466	475
MS/ha/day (total kgs / ha used)	5.76	5.53	5.19	5.07	5.06
Herd Average Cond'n Score	0.00	0.00	0.00	4.30	0.00
Monitor group LW kg WOW 281 early calvers	499	495	495	499	502
Soil Temp Avg Aquaflex	14.5	15.5	12.9	13.2	11.8
Growth Rate (kgDM/ha/day)	57	59	46	60	56
Plate meter height - ave half-cms	15.8	16.0	15.1	15.2	15.4
Ave Pasture Cover (x140 + 500)	2716	2733	2615	2632	2656
Surplus/[deficit] on feed wedge- tonnes	0	0	0	0	0
Pre Grazing cover (ave for week)	3750	3559	3524	3545	3616
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3610	3850	3750	3600	3950
Area grazed / day (ave for week)	5.10	5.23	5.07	4.45	3.92
Grazing Interval	31	31	32	36	41
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 total MJME Offered/eaten (includes 6% waste)	0	0	0	0	0
Pasture ME (pre grazing sample)	0.0	11.6	0.0	0.0	12.0
Pasture % Protein	0.0	19.0	0.0	0.0	19.5
Pasture % DM - Concern below 16%	0.0	13.7	0.0	0.0	13.2
Pasture % NDF Concern < 33	0.0	45.5	0.0	0.0	39.0
Mowed pre or post grazing YTD	277.2	277.2	277.2	277.2	277.2
Total area mowed YTD	310.4	310.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	166.3	195.3	251.6	302.8	356.9
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47

Units N applied/ha and % of farm	25units/ 17.7%	25units/15.4 %	25units/33.7%	0	0
Kgs N to Date (whole farm)	161	165	173	173	173
Rainfall (mm)	9.4	9.8	57.2	77.6	0
Aquaflex topsoil relative to fill point target 60 - 80%	80-90	70-90	100-100	100-100	90-100

Next farm walk: Tuesday 2nd May 2017 at 9am. 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.

Note also – LUDF Focus Day – Thursday 4th May 2017.

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 18 April 2017

LUDF – focus for 2016/17 Season: Nil-Infrastructure, low input, low N-loss, maximise profit.
Farm system comprises 3.5 cows/ha (peak milked), Target up to 170kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1 million and Target production of over 500kgMS/cow (>100% liveweight in milk production).

Critical issues for the short term

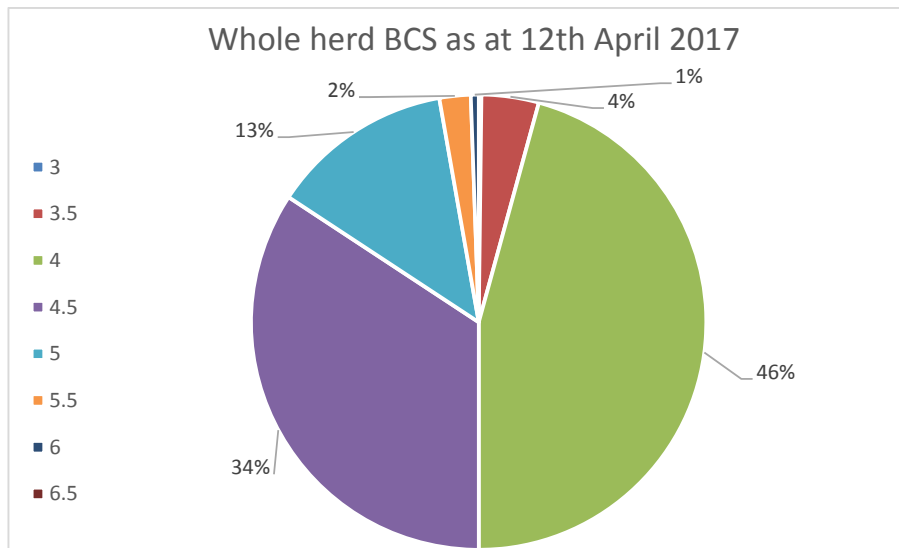
1. **Observe grazing behaviour of herd as fodderbeet has been introduced into the diet.**
2. **Hold the rotation length to minimum of 35 days as we head later into the autumn**
3. **Set the farm and herd up for next season with round length and BCS monitoring and management**
4. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production.**
5. **Monitor cow BCS changes.**

Key Numbers - week ending Tuesday 18 April 2017

Ave Pasture Cover	2632 kgDM/ha	Pasture Growth Rate	60 kgDM/ha/day (as per farm walk – but not confident in this number)
Round length	35.9 days	Ave Supplement used	7.4 Kg/DM/Day comprising on average 6.1 kgDM/cow/day silage + 1.3 kgDM fodder beet/cow/day
No Cows on farm	541	Ave Soil Temp (week)	13.2°C
Kg MS/cow (546 cows)	1.5	SCC	173,000
Milk Protein : Fat ratio	0.79	Protein: 4.70%	Fat: 5.95%

Herd Management

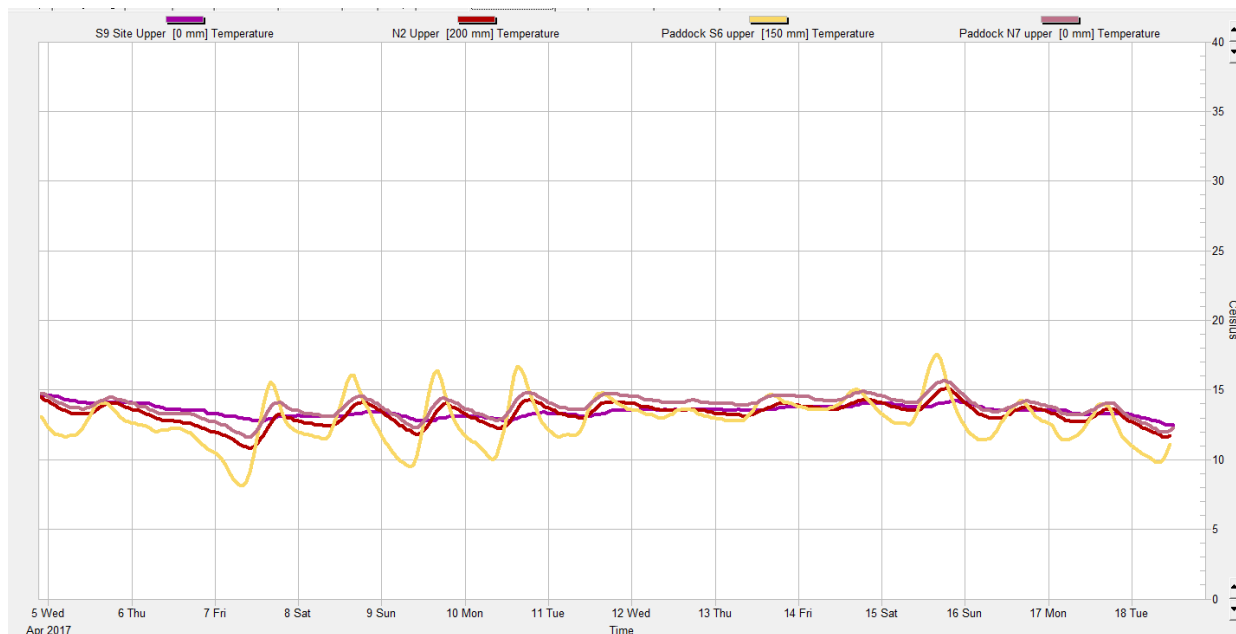
6. A total of 541 calved cows are on farm. There are 2 milking herds, the small herd comprises 148 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13th January 2017) and the large herd is 335 mixed age cows and heifers, primarily later calvers and in BCS 4.5 or above. Slight preferential grazing continues for the small herd (ie grazing the first part of most paddocks which are then generally followed by the main herd)
7. There are 540 cows going into the vat, with 483 cows on twice a day milking, 57 once a day.
8. There was one new case of mastitis over the past week (70 clinical cases season to date vs 92 cases at the same time last season).
9. This week, there were 30 new cases of lameness (180 cases season to date vs 171 cases same time last year). This is, most likely, related to both the very wet weather of the last 3 weeks and also some of the acidosis a small proportion of the herd has experienced since the first rain spell.
10. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
11. DCP (dicalcium phosphate) is being supplied both through water troughs and also dusted on silage.
12. Average herd liveweight (whole herd) for the week was 502 kgLWT, 4 kg higher than as last week. The monitor group (281 early calving MA cows) has also increased by the same amount and are now 499 kgLWT.
13. All cows in the herd have been BCS on the 12th April. The average for the herd has remained at 4.3 (same as last month), however there was a small shift of cow number towards higher BCS groups.



Growing Conditions

14. The average 9 am soil temperature has increased slightly over the week to 13.2°C (a 0.3 degree increase; 12.5°C at the same time last year).

Figure 1: Soil temperature history for the last 2 weeks

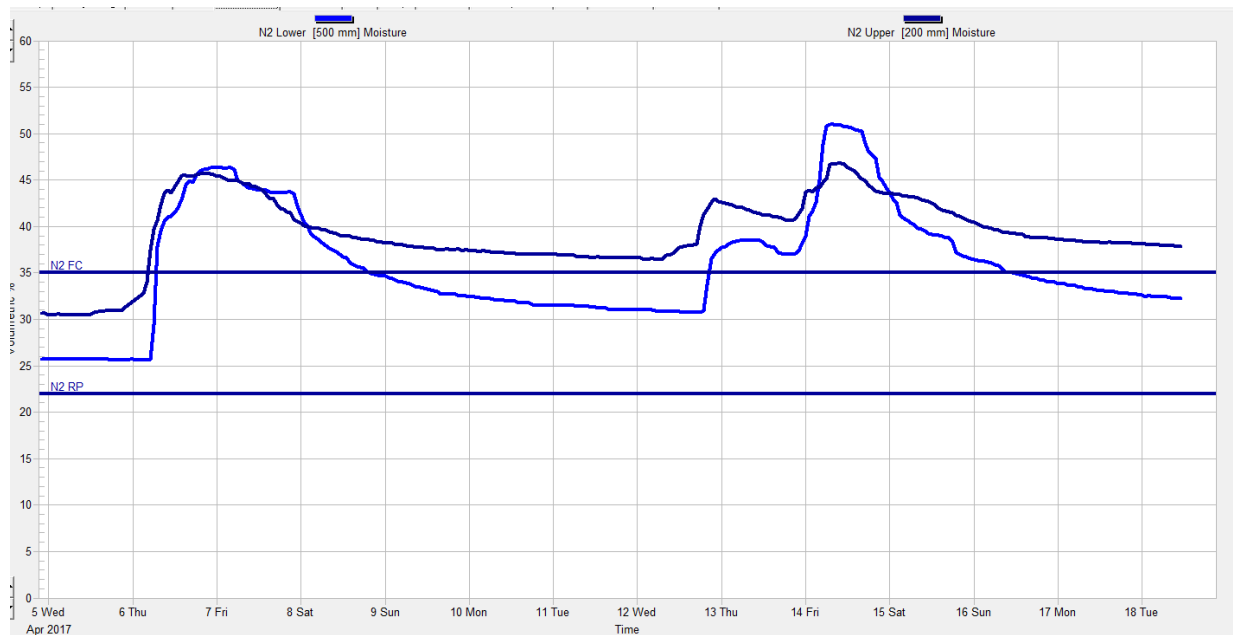


15. The farm has had 77.6 mL of rain over this past week and 214 ml of rain since early March.

16. This had made pasture management more challenging, to avoid damage while seeking to achieve target residuals (low and consistent) and transition onto a new feed (fodder beet). With a target round length of 35-40 days, the herd is effectively going into the last grazing round of the farm. Weather condition in each paddock will therefore determine what is achieved in terms of prewinter residuals; there are a few high residuals left from the recent wet weather that ideally will be grazed harder on this next round.

17. Irrigation has now finished.

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



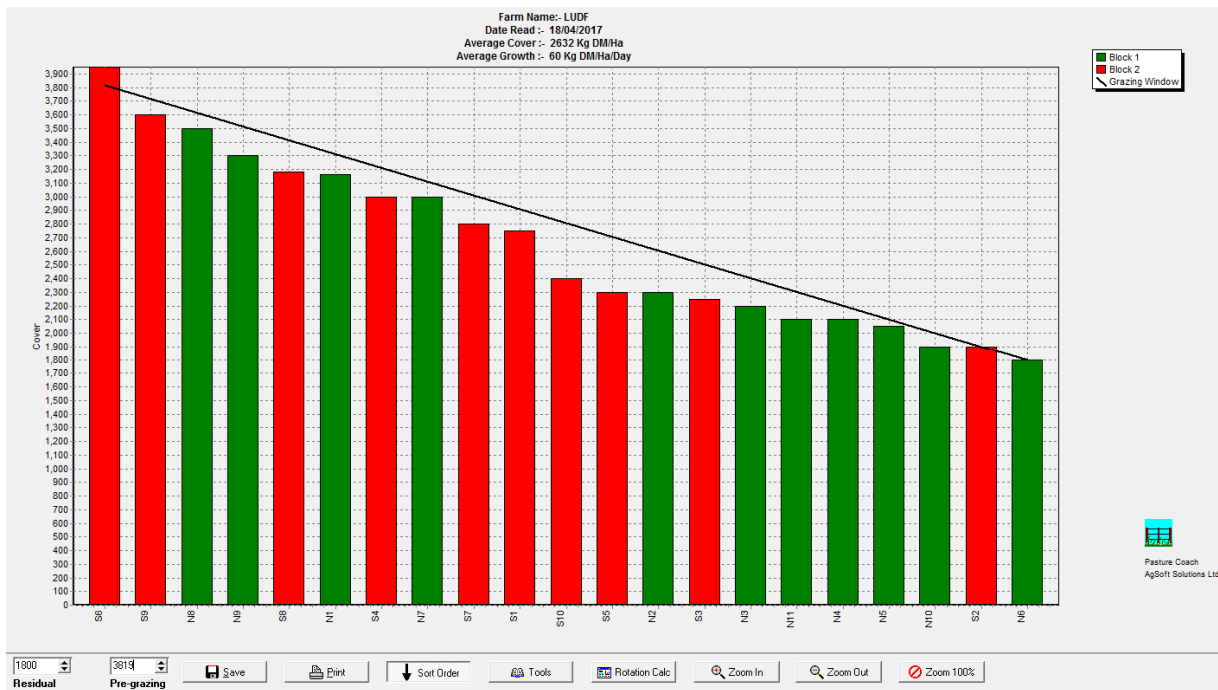
18. A total of 173kgN/ha have been applied to the platform for the season. The N application finished 1 week ago.

Pasture and Feed Management

19. Cows have managed a 35.9 day round this week using 6.1 Kg DM/cow/day silage fed and 1.3 Kg DM fodder beet/cow/day average for the week (a decrease from the 1.77 kgDM fodder beet/cow/day allocated last week).
20. The recent very wet weather has created a management challenge when it comes to avoiding pasture damage, getting cows to eat the silage and keep the fodder beet transitioning going smoothly.
21. Some cows have required treatment for acidosis and there was 1 cow lost during the weekend, which had been treated last week.
22. It is estimated that about 30% of the herd have not taken up the fodder beet, which has contributed to the occurrence of acidosis in some cows. Over the past week, fodder beet has been offered to the herd after the morning milking, but before silage to better encourage intake by all cows. Note the herd remains on a 24 hr break, getting a new 24 hr feed in the afternoon, so they have had a second grazing of pasture between the morning milking and the fodder beet. **WE SUGGEST other farmers check their feeding regime with qualified advisors and make changes based on individual circumstances and opportunities rather than directly replicate practices of LUDF or other farmers.**
23. Over the next few weeks, the desire is to increase the fodder beet up to 3 kg DM/cow/day, noting that if 3kg are offered to all cows but only 70% of the herd is eating this, those cows will be consuming nearly 4.3 kgDM/cow/day.
24. Its unlikely the amount of fodder beet offered will increase unless the whole herd is routinely eating beet.
25. Cows will be re-transitioned when they get to the wintering block to ensure that all cows are appropriately transitioned onto the crop for the winter.
26. In terms of the pastures, there is no quality loss evident on observation (except for half of paddock S5, which is our newest regrassed paddock and cows were taken out of the paddocks last week when the wet weather hit, to avoid pugging damage).
27. Rising Plate Meter data collected on the farm walk continues as an average of 2-3 plate meters and some discussion on the likely available feed that the herd will consume. This change in approach (since early February 2017) has generally provided a more realistic data set, including APC and growth rates that appear to better align with apparent cow intake.

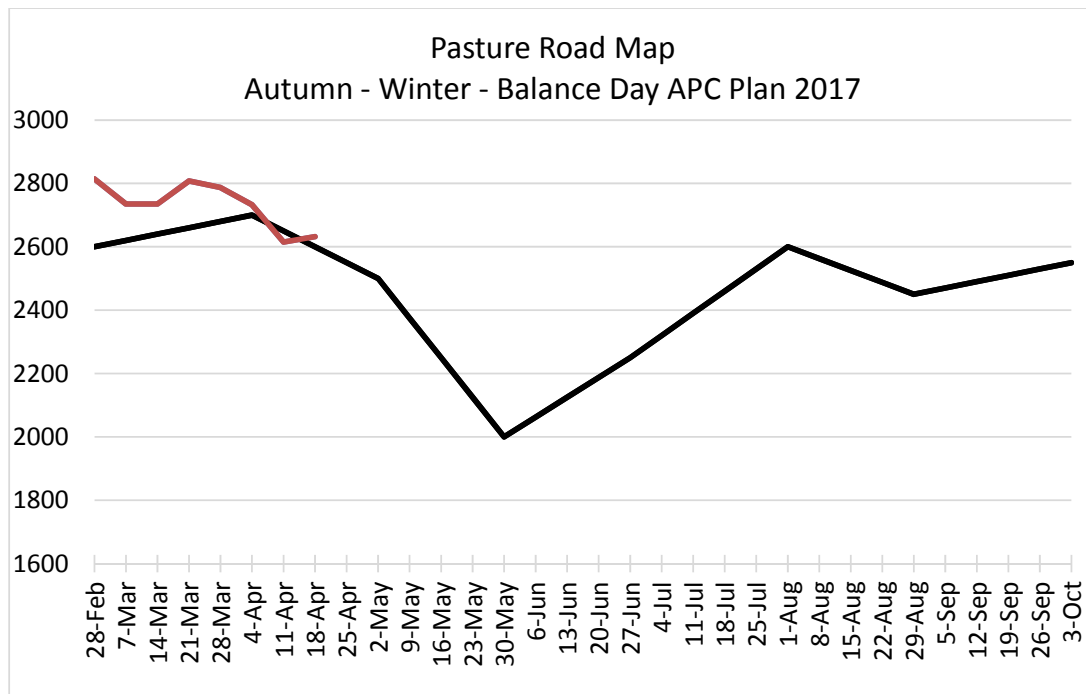
28. Pasture quality from samples collected on 5th April showed an average of 10.7% DM (much lower than the 13.6% of the previous week).
- Energy content similar to the previous week (11.7 MJME/kgDM)
 - Protein levels have risen a little (23 vs 19%)
 - NDF has decreased (38 vs 45%).

Figure 3: This week's feed wedge



29. The feed wedge reports an average pasture cover of 2632kgDM/ha, virtually unchanged from last week (2615kgDM/ha). It also proposes the average growth rate was 60 kgDM/ha/day.
30. Growth of 60kgDM/ha is unrealistic given the total demand is 57 kgDM/ha/day and 25kgDM/ha/day was provided by the supplements. Pasture grown, based on the average pasture cover holding was probably closer to 32 kgDM/ha/day (57-25= 32).
31. The feed wedge above is calculated as if cows were being fully fed on grass (17 kgDM/cow//day) and it estimates a feed deficit of around 26 tDM total.
32. The demand line on the pasture wedge graph is calculated as follows:
- 543 cows on 160 ha: 3.4 cows/ha.
 - In terms of round length, the planned round length for the coming week is 35 days over 160 ha or 4.57 ha/day
 - The dry matter intake for the current level of milksolids production is around 17 kgDM/cow/day
 - Total demand: 17 kgDM/cow/day x 541 average cows for the week = 9,197 kgDM/day (57 kgDM/ha/day)
 - Demand (if supplied solely from pasture) of 9,197 kgDM/day from 4.57 ha /day requires 2,012 kgDM/ha available.
 - Assuming the target residual is 1,800kgDM/ha, target pregraze covers are 3,812 kgDM/ha. (1,800 kgDM/ha + 2,012 kgDM/ha = 3,812 kgDM/ha pregraze cover).
 - Target APC would therefore be (3,812+1800)/2 = 2,806 kgDM/ha
33. Given the silage and beet offered is equivalent to 25kgDM/ha/day, the demand from pasture becomes 32 kgDM/ha, requiring pre grazing covers of close to 3000kgDM/ha and an average pasture cover of 2370kgDM/ha. As pregrazing covers are clearly above this, overall feed utilisation is not as high as desired.

34. While the growth rate suggests we should be able to fully feed cows on grass, it is only by adding in the supplement that the farm is being able to hold onto the average pasture cover it requires as per the pasture road map below.



Feeding Management for the coming week:

35. Considering the BCS data, supplement required, increased lameness, and cows reluctance to walk to the shed, a range of different scenarios are being evaluated, balancing the cost of supplements vs milk revenue, management (staff and jobs), weather and ground conditions, feed available (silage available + silage harvested on farm), BCS and lameness. Options include:
- Continue milking twice-a-day and purchase additional supplements to feed as required
 - Cull empty cows to reduce feed demand and hence demand for supplements
 - Once-a-day milking to reduce feed demand a little and reduce pressure on lameness
 - A combination of the above.
- Note: Cows that are getting dried off will be moved to the east block and grazing purchased for them as dry cows. They will be fed adlib to encourage a lift in BCS.
36. The BCS / interval till calving suggests this decision can be made over the next week for the lightest condition score /earliest calving cows.
37. Quick calculations at the whole herd level imply that it is still profitable to feed this level of supplements to empty cull cows (17 kgDM/cow/day x 0.30\$/kgDM supplement = \$5.1/cow supplement cost. At 1.5 kgMS/cow/day production, each cows is returning \$9/cow/day)
38. In connection to the fodder beet transition of acidosis problem presented, current plans are:
- Analysis of the Dry matter % of bulbs to assist with allocation.
 - Ongoing observation of cows. Careful observation of the herds will be made moving forward, watching for signs of acidosis including rumen fill, cud chewing, dung consistency, evidence of a secondary milk fever and amount of milk being produced by each cow.
 - Cows that are suspected of showing signs of ruminal acidosis will be moved into the penicillin mob and offered as much silage as they can eat, with a limited amount of fodderbeet bulbs. Once a day milking will be considered for clinically unwell cows.
 - To encourage those cows that have not taken to the crop yet, to get into it, the fodder beet will be fed first and then the silage.

39. The aim is to hold to a 35 day round, requiring the ongoing feeding of fodderbeet and silage to reach this target. We are now entering the last grazing round for the farm, so paddocks will be now getting their last grazing. Achieving the necessary residuals will remain a focus, as long the weather allows for this.
40. The amount of silage accompanying the fodder beet will differ on a paddock per paddock basis, based on residuals and cow behaviour and the silage will be fed before the fodder beet is being offered.
41. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day.

LUDF Weekly report	21-Mar-17	28-Mar-17	4-Apr-17	11-Apr-17	18-Apr-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	1/0/0/0	1/0/0/0	1/0/0/0	0/0/0/0	0/0/0/0
Culls (Includes culls put down & empties)	0	0	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	0	0	0	1	1
Deaths total to date	15	15	15	16	17
Calved Cows available (Peak Number 560...)	542	542	542	542	541
Treatment / Sick mob total	5	2	1	1	1
Mastitis clinical treatment	2	2	1	1	1
Mastitis clinical YTD (tgt below 64 yr end)	65	67	68	69	70
Bulk milk SCC (tgt Avg below 150)	163	176	146	149	173
Lame new cases	3	4	16	10	30
Lame ytd	120	124	140	150	180
Lame days YTD (Tgt below 1000 yr end)	3722	3794	3962	3962	4627
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	511	522	501	502	483
Milking once a day into vat	26	18	40	38	57
Small herd	158	159	150	154	148
Main Herd	353	363	351	349	335
MS/cow/day (Actual kg / Cows into vat only)	1.70	1.72	1.64	1.53	1.50
Milk Protein/Fat ratio	0.79	0.81	0.79	0.76	0.79
Milk Fat %	5.77	5.64	5.76	5.92	5.95
Milk Protein %	4.54	4.55	4.56	4.57	4.70
MS/cow to date (total kgs / Peak Cows 560)	423	433	445	454	466
MS/ha/day (total kgs / ha used)	4.27	5.76	5.53	5.19	5.07
Herd Average Cond'n Score	4.30				4.30
Monitor group LW kg WOW 281 early calvers	503	499	495	495	499
Soil Temp Avg Aquaflex	14.4	14.5	15.5	12.9	13.2
Growth Rate (kgDM/ha/day)	77	57	59	46	60
Plate meter height - ave half-cms	16.5	15.8	16.0	15.1	15.2
Ave Pasture Cover (x140 + 500)	2808	2716	2733	2615	2632
Surplus/[deficit] on feed wedge- tonnes	0	0	0	0	0
Pre Grazing cover (ave for week)	3900	3750	3559	3524	3545
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3743	3610	3850	3750	3600
Area grazed / day (ave for week)	4.92	5.10	5.23	5.07	4.45
Grazing Interval	33	31	31	32	36
Milkers Offered/grazed kg DM pasture	12.1	0.0	0.0	0.0	0.0
Estimated intake pasture MJME	142	0	0	0	0
Milkers offered kg DM Grass silage	5	0	0	0	0
Silage MJME/cow offered	11	0	0	0	0
Estimated intake Silage MJME	57	0	0	0	0
Estimated total intake MJME	199	0	0	0	0
Target total MJME Offered/eaten (includes 6% waste)	0	0	0	0	0

Pasture ME (pre grazing sample)	11.7	0.0	11.6	0.0	0.0
Pasture % Protein	18.9	0.0	19.0	0.0	0.0
Pasture % DM - Concern below 16%	14.9	0.0	13.7	0.0	0.0
Pasture % NDF Concern < 33	41.8	0.0	45.5	0.0	0.0
Mowed pre or post grazing YTD	277.2	277.2	277.2	277.2	277.2
Total area mowed YTD	310.4	310.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	154.7	166.3	195.3	251.6	302.8
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	25units/ 29.1%	25units/ 17.7%	25units/15.4 %	25units /33.7%	0
Kgs N to Date (whole farm)	157	161	165	173	173
Rainfall (mm)	9.4	9.4	9.8	57.2	77.6
Aquaflex topsoil relative to fill point target 60 - 80%	90-100	80-90	70-90	100-100	100-100

Next farm walk: Tuesday 4th April 2017 at 9am. 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.

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 11 April 2017

LUDF – focus for 2016/17 Season: Nil-Infrastructure, low input, low N-loss, maximise profit.
Farm system comprises 3.5 cows/ha (peak milked), Target up to 170kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1 million and Target production of over 500kgMS/cow (>100% liveweight in milk production).

Critical issues for the short term

1. Watch carefully for Acidosis - Observe grazing behaviour of herd with fodderbeet.
2. Hold the rotation length to minimum 30 days and lift to 35 days as we head later into the autumn
3. Set the farm and herd up for next season with round length and BCS monitoring and management
4. Remain focussed on average pasture cover and pasture quality.
5. Monitor cow BCS changes.

Key Numbers - week ending Tuesday 11 April 2017

Ave Pasture Cover	2615 kgDM/ha	Pasture Growth Rate	46 kgDM/ha/day
Round length	31 days	Ave Supplement used	8.2 Kg/DM/Day – comprising - 6.5 kgDM/cow/day silage + 1.8 kgDM fodder beet/cow/day)
No Cows on farm	542	Ave Soil Temp (week)	12.9°C
Kg MS/cow (546 cows)	1.54	SCC	149,000
Milk Protein : Fat ratio	0.76	Protein: 4.57%	Fat: 5.92%

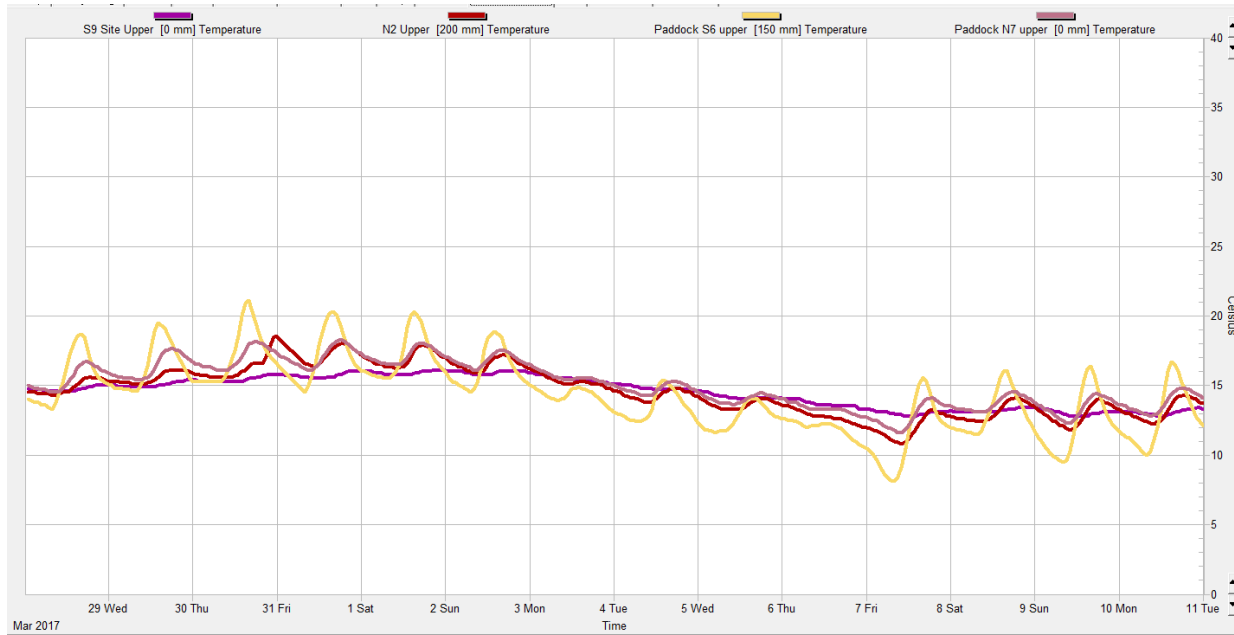
Herd Management

6. A total of 542 calved cows are on farm. There are 2 milking herds, the small herd comprises 150 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13th January 2017) and the large herd is 351 mixed age cows and heifers, primarily later calvers and in BCS 4.5 or above. Slight preferential grazing continues for the small herd (ie grazing the first part of most paddocks which are then generally followed by the main herd)
7. There are 541 cows going into the vat, with 501 cows on twice a day milking, 40 once a day.
8. There was one new case of mastitis over the past week (69 clinical cases season to date vs 92 cases at the same time last season).
9. This week, there were 10 new cases of lameness (150 cases season to date vs 168 cases same time last year).
10. There have been four downer cows after the recent spell of bad weather. Following a veterinary visit, these cows were treated for ruminal acidosis and given a shot of antibiotics (to avoid secondary infection including liver and lung abscesses). Despite all cows appearing to eat fodder beet and 2 weeks of low level of fodder beet offered, some cows appear to be eating much more than others.
11. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
12. Average herd liveweight (whole herd) for the week was 498 kgLWT, same as last week. The monitor group (281 early calving MA cows) has also remained the same at 495 kgLWT.
13. All cows in the herd will be individually body condition scored tomorrow (12th April).

Growing Conditions

14. The average 9 am soil temperature for the past week has dropped to 12.9°C from 15.5 last week (13.7°C at the same time last year).

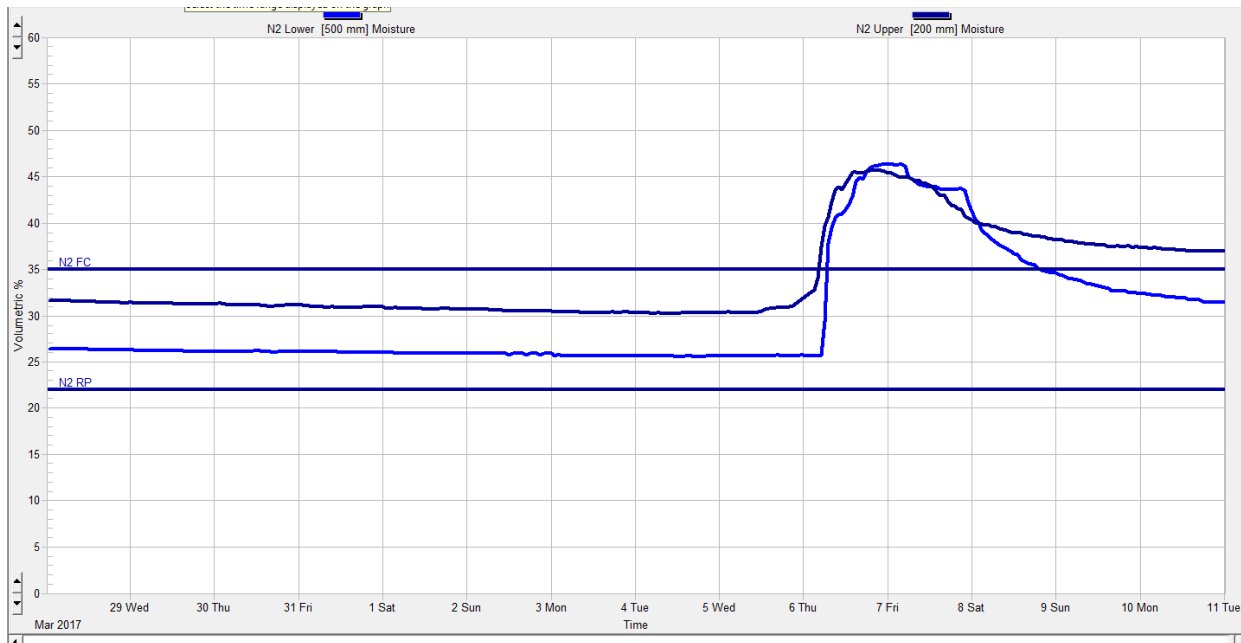
Figure 1: Soil temperature history for the last 2 weeks



15. The farm has had 52.7 mL of rain over this past week.

16. Irrigation has now finished.

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



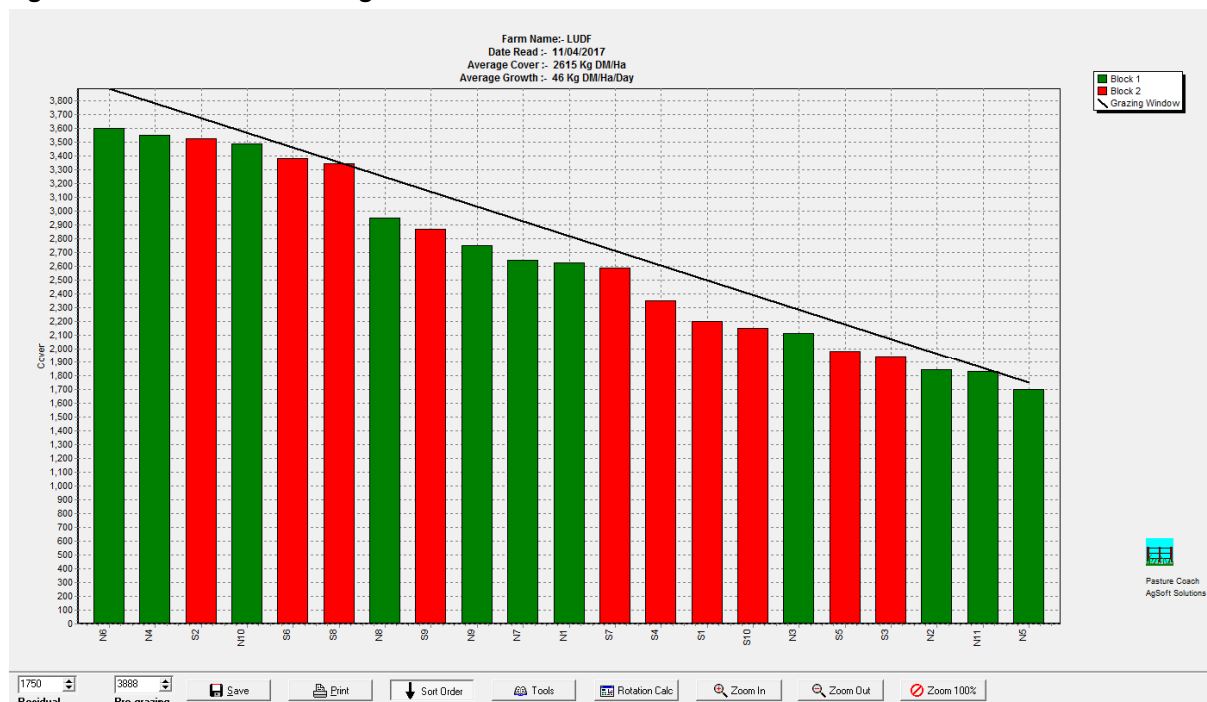
17. N Fertilizer was applied to 53.93 ha of the farm over the past week. Season to date, 173 kgN/ha has been applied on average across the whole farm.

18. There will be no more Nitrogen fertilizer applied on platform this season as soil temperature will become more limiting than nutrient supply to pasture growth rates.

Pasture and Feed Management

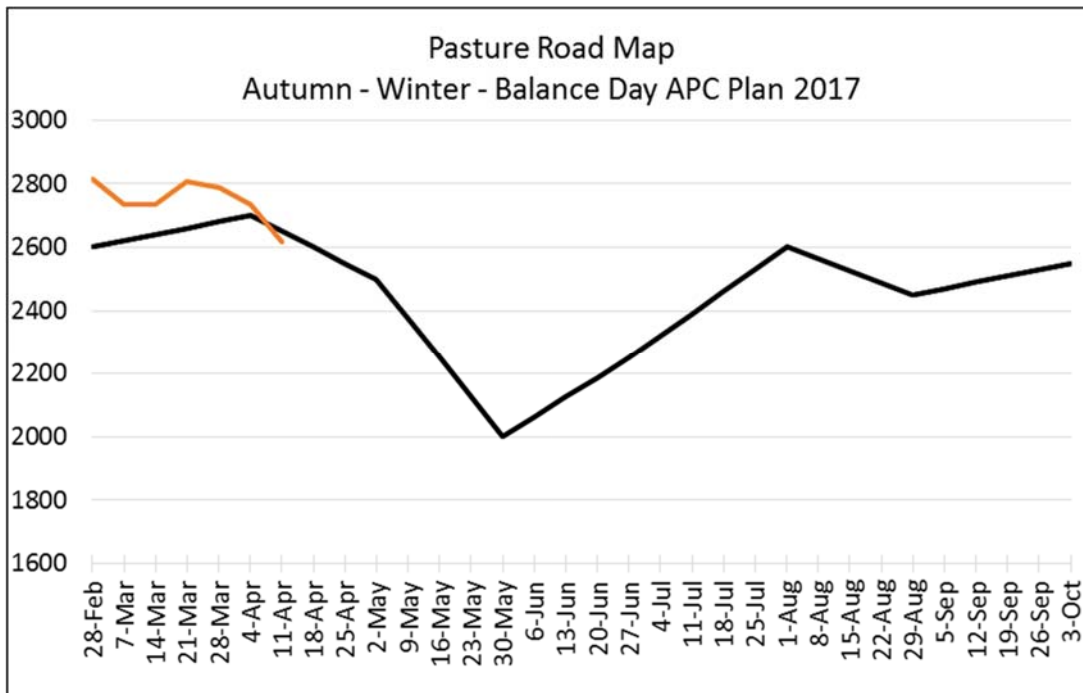
19. Cows have managed a 31.5 day round this week using 6.45 Kg DM/cow/day silage fed and 1.77 Kg DM fodder beet/cow/day average for the week (the amount of fodderbeet offered per day was slowly increased through the week).
20. The recent very wet weather and high soil moisture (as in the graph above) has created a management challenge to avoid pasture damage while continuing to get high utilisation of pasture, silage and maintain the fodder beet transition.
21. Fodder beet allocation will not be increased for another 7-10 days given the acidosis experienced by some cows (as above). The amount of silage offered will be increased as required on a paddock by paddock basis to meet cow demands and continue to slow the grazing round down to 35 days.
22. Clover presence remains strong in all paddocks.
23. Rising Plate Meter data collected on the farm walk continues as an average of 2-3 plate meters and some discussion on the likely available feed that the herd will consume. This change in approach (since early February 2017) has provided a more realistic data set, including APC and growth rates that appear to better align with apparent cow intake.
24. Pasture quality from samples collected on 5th April showed an average of 10.7% DM (much lower than the 13.6% of the previous week).
 - a. Energy content similar to the previous week (11.7 MJME/kgDM)
 - b. Protein levels have risen a little (23 vs 19%)
 - c. NDF has decreased (38 vs 45%).

Figure 3: This week's feed wedge



25. The demand line on the pasture wedge graph is calculated as follows:
 - a. 543 cows on 160 ha: 3.4 cows/ha.
 - b. In terms of round length, we plan round length for the coming week is 35 days over 160 ha or 4.57 ha/day
 - c. The dry matter intake for the current level of milksolids production and wanting some CS gain is around 18 kgDM/cow/day
 - d. Total demand: 18 kgDM/cow/day x 543 average cows for the week = 9,774 kgDM/day (61 kgDM/ha/day)
 - e. Demand (if supplied solely from pasture) of 9,774 kgDM/day from 4.57 ha /day requires 2,138 kgDM/ha available.

- f. Assuming the target residual is 1,750kgDM/ha, target pregraze covers are 3888 kgDM/ha. (1,750 kgDM/ha + 2,138 kgDM/ha = 3,888 kgDM/ha pregraze cover).
- g. Target APC if feeding only pasture would therefore be $(3,888+1750)/2 = 2,819$ kgDM/ha
26. It appears that the revision of plating technique has reduced much of the previous overestimation of pasture covers and subsequently pasture growth rates, with the data more closely aligning with what observation of the cows indicates.
27. The feed wedge above is showing a deficit of around 29 tDM total at this stage.
28. Average pasture cover this week has dropped by around 100 kgDM/ha from last weeks average pasture cover.
29. The wedge above estimated a growth for the week of about 46 kgDM/ha/day and the pregrazing covers were calculated to feed cows on grass only, holding a 35 day round.
30. In reality, the farm achieved a 31.5 day round feeding a total of 8.22 kgDM/cow/day (28kgDM/ha/day) supplement, so the demand from pasture was 33 kgDM/ha/day. Growth rates are still being overestimated given the drop in APC has effectively supplied a further $(100/7 = 14\text{kgDM/ha/day eaten})$.
31. This places the APC slightly below the target APC as on the following Pasture Road Map (Autumn-Winter Average Pasture Cover tracker). This tool enables weekly and monthly identification of progress towards dry off cover and start of calving pasture cover targets.



Feeding Management for the coming week:

32. The herd will be BCS tomorrow (Wednesday 12 April). Using these results, the farm will begin applying drying off decisions based on BCS and calving date to ensure calving targets are met.
33. To address the clinical ruminal acidosis, the fodder beet feeding plan has been modified to include:
- Analysis of the Dry matter % of bulbs to assist with allocation.
 - Ongoing observation of cows. Careful observation of the herds will be made moving forward, watching for signs of acidosis including rumen fill, cud chewing, dung consistency, evidence of a secondary milk fever and amount of milk being produced by each cow.
 - Cows that are suspected of showing signs of ruminal acidosis will be moved into the penicillin mob and offered as much silage as they can eat, with a limited amount of fodderbeet bulbs. Once a day milking will be considered for clinically unwell cows.

- d. Pasture and silage is being fed at least 2 hours before fodderbeet bulbs to try to minimise risk of some cows overconsuming beet bulbs.
 - e. Additional silage will be fed to the smaller herd (that contains the cows that have been treated for ruminal acidosis, or suspected as having sub clinical ruminal acidosis). Aims are to feed silage to appetite for a number of days to maximise amount of high fibre on offer, where acidosis cows may be craving fibre after experiencing some acidosis.
34. Being mid April, the aim is to hold to a 35 day round, requiring the ongoing feeding of fodderbeet and silage to reach this target.
35. The amount of silage accompanying the fodder beet will differ on a paddock per paddock basis, based on residuals and cow behaviour and the silage will be fed before the fodder beet is being offered.
36. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day.
37. The farm will not apply any more Nitrogen fertilizer for the season.

LUDF Weekly report	14-Mar-17	21-Mar-17	28-Mar-17	4-Apr-17	11-Apr-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	1/0/0/0	1/0/0/0	1/0/0/0	1/0/0/0	0/0/0/0
Culls (Includes culls put down & empties)	0	0	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	1	0	0	0	1
Deaths total to date	15	15	15	15	16
Calved Cows available (Peak Number 560...)	542	542	542	542	542
Treatment / Sick mob total	4	5	2	1	1
Mastitis clinical treatment	3	2	2	1	1
Mastitis clinical YTD (tgt below 64 yr end)	63	65	67	68	69
Bulk milk SCC (tgt Avg below 150)	151	163	176	146	149
Lame new cases	4	3	4	16	10
Lame ytd	117	120	124	140	150
Lame days YTD (Tgt below 1000 yr end)	3540	3722	3794	3962	3962
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	513	511	522	501	502
Milking once a day into vat	25	26	18	40	38
Small herd	157	158	159	150	154
Main Herd	356	353	363	351	349
MS/cow/day (Actual kg / Cows into vat only)	1.69	1.70	1.72	1.64	1.53
Milk Protein/Fat ratio	0.80	0.79	0.81	0.79	0.76
Milk Fat %	5.55	5.77	5.64	5.76	5.92
Milk Protein %	4.41	4.54	4.55	4.56	4.57
MS/cow to date (total kgs / Peak Cows 560)	413	423	433	445	454
MS/ha/day (total kgs / ha used)	5.68	4.27	5.76	5.53	5.19
Herd Average Cond'n Score	0.00	4.30	0.00	0.00	0.00
Monitor group LW kg WOW 281 early calvers	501	503	499	495	495
Soil Temp Avg Aquaflex	14.4	14.4	14.5	15.5	12.9
Growth Rate (kgDM/ha/day)	66	77	57	59	46
Plate meter height - ave half-cms	16.0	16.5	15.8	16.0	15.1
Ave Pasture Cover (x140 + 500)	2735	2808	2716	2733	2615
Surplus/[deficit] on feed wedge- tonnes	0	0	0	0	0
Pre Grazing cover (ave for week)	3537	3900	3750	3559	3524
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3888	3743	3610	3850	3750
Area grazed / day (ave for week)	5.12	4.92	5.10	5.23	5.07
Grazing Interval	31	33	31	31	32
Milkers Offered/grazed kg DM pasture	15.6	12.1	0.0	0.0	0.0

Estimated intake pasture MJME	184	142			
Milkers offered kg DM Grass silage	5	5			
Silage MJME/cow offered	11	11			
Estimated intake Silage MJME	51	57			
Estimated total intake MJME	235	199			
Target total MJME Offer/eaten (includes 6% waste)	0	0			
Pasture ME (pre grazing sample)	11.8	11.7		11.6	11.7
Pasture % Protein	22.9	18.9		19.0	23
Pasture % DM - Concern below 16%	14.5	14.9		13.7	10.7
Pasture % NDF Concern < 33	38.5	41.8		45.5	38.2
Mowed pre or post grazing YTD	277.2	277.2	277.2	277.2	277.2
Total area mowed YTD	310.4	310.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	119.5	154.7	166.3	195.3	251.6
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	0	25units/ 29.1%	25units/ 17.7%	25units/ 15.4%	25 units / 33.7%
Kgs N to Date (whole farm)	152	157	161	165	173
Rainfall (mm)	52.2	9.4	9.4	9.8	57.2
Aquaflex topsoil relative to fill point target 60 - 80%	100-100	90-100	80-90	70-90	100-100

Next farm walk: Tuesday 18th April 2017 at 9am. 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.

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 4 April 2017

LUDF – focus for 2016/17 Season: Nil-Infrastructure, low input, low N-loss, maximise profit.
Farm system comprises 3.5 cows/ha (peak milked), Target up to 170kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1 million and Target production of over 500kgMS/cow (>100% liveweight in milk production).

Critical issues for the short term

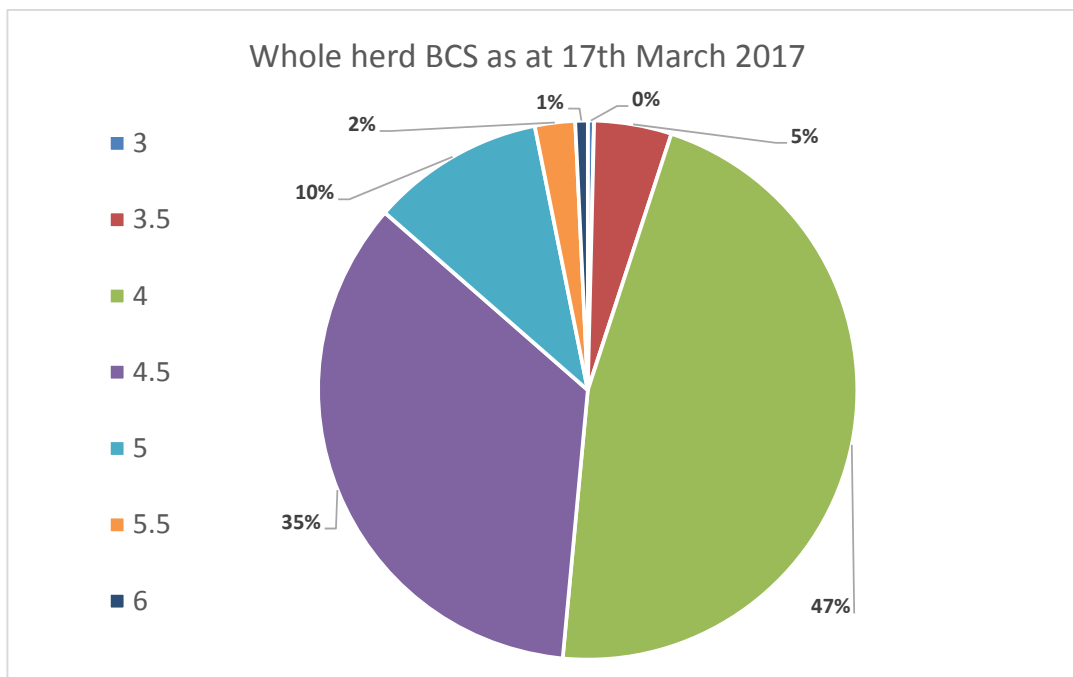
1. **Observe grazing behaviour of herd as fodderbeet has been introduced into the diet.**
2. **Hold the rotation length to minimum 30 days and likely 35 days as we head into the autumn**
3. **Set the farm and herd up for next season with round length and BCS monitoring and management**
4. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production.**
5. **Monitor cow BCS changes.**

Key Numbers - week ending Tuesday 4 April 2017

Ave Pasture Cover	2733 kgDM/ha	Pasture Growth Rate	59 kgDM/ha/day (from Pasture Coach, probably closer to 50/day)
Round length	31 days	Ave Supplement used	4 Kg/DM/Day (total) comprising 3 kgDM/cow/day silage + 1 kgDM fodder beet/cow/day
No Cows on farm	543	Ave Soil Temp (week)	15.5°C
Kg MS/cow (546 cows)	1.64	SCC	146,000
Milk Protein : Fat ratio	0.79	Protein: 4.56%	Fat: 5.76%

Herd Management

6. A total of 543 calved cows are on farm. There are 2 milking herds, the small herd comprises 150 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13th January 2017) and the large herd is 351 mixed age cows and heifers, primarily later calvers and in BCS 4.5 or above. Slight preferential grazing continues for the small herd (ie grazing the first part of most paddocks which are then generally followed by the main herd)
7. There are 541 cows going into the vat, with 501 cows on twice a day milking, 40 once a day.
8. There were 1 new case of mastitis over the past week (68 clinical cases season to date vs 91 cases at the same time last season).
9. This week, there were 16 new cases of lameness (140 cases season to date vs 163 cases same time last year).
10. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
11. Average herd liveweight (whole herd) for the week was 498 kgLWT, 5 kgLWT lower than last week. The monitor group (281 early calving MA cows) has also decreased by 4 kg to 495 kgLWT.
12. The herd was BCS on the 17th March. The average BCS of the whole herd was 4.3 (an increase of 0.1 BCS since the 16th February). 5% of the herd remain below CS 4.0 (vs. 8% one month ago), 46 % of cows are BC 4.0 (vs 52% one month ago), 35% are 4.5 (vs 29% one month ago) and 14% are 5 or above (vs 11 % one month ago). In late October, the average was 4.5, and in mid-July, an average of 5.3. The whole herd will be body conditioned scored again in mid-April 2017.



13. 2016 spring born replacement heifers have received the first of 2 shots of Lepto and B12 plus Selenium during the week. They were also weighed. The average of the herd is 209 kgLWT. 93% of these are above target, and the remainder on target.
14. 2015 born R2 heifers were weighed (average weight 467 kg) and vaccinated for Lepto as well as B12 plus Selenium on Thursday 23rd March.

Reproductive performance:

15. Cows:

- a. 10 weeks mating started on 25 October and finished 4th January. Scanning results reported in the Fertility Focus Report show a 6-week InCalf rate of 63%, down from 69% last year and reflecting the challenging mating season and IBR outbreak described earlier in the season. The overall not-InCalf rate is 15%, slightly higher than the past few years.

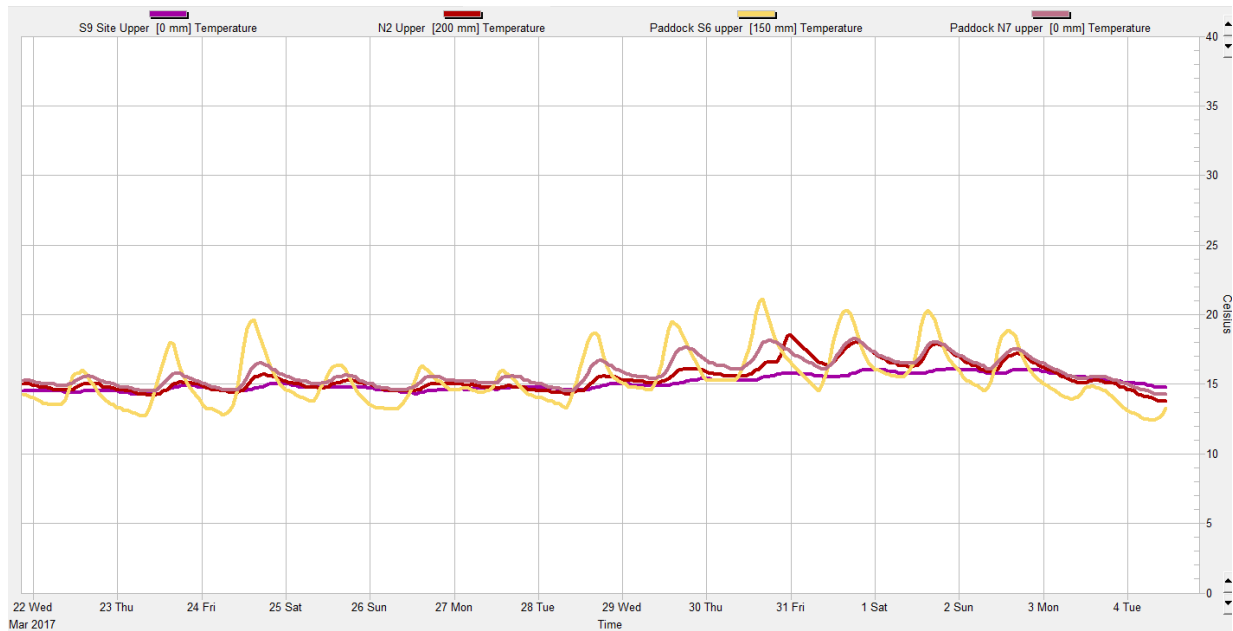
16. Replacement heifers:

- a. 9 weeks mating started for R2 2015 born heifers on 11th October 2016.
- b. A scan on the 19th January gave a final result of 91% in calf.
- c. This results in 134 R2yr heifers InCalf or 24% available as replacements to enter the herd next calving. (2 have been culled since mating).

Growing Conditions

17. The average 9 am soil temperature for the past week has remained at 15.5°C same as last week (14.5°C at the same time last year).

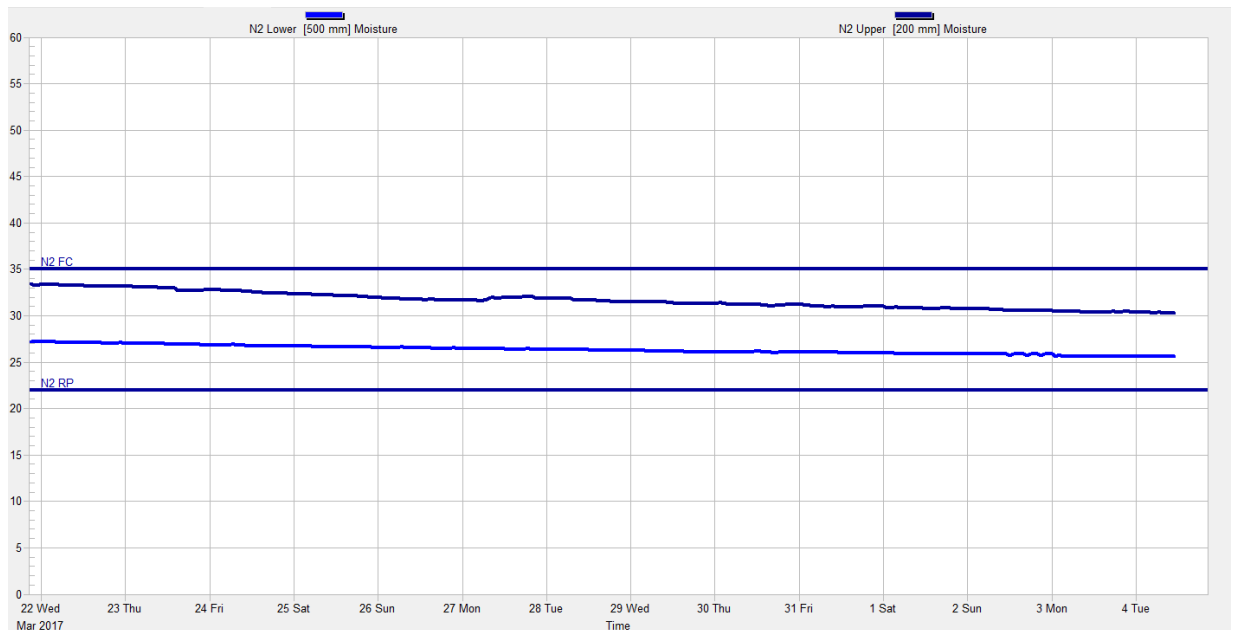
Figure 1: Soil temperature history for the last 2 weeks



18. The farm has had 9.8 mils over this past week (rain is supposed to be falling for the next few days still).

19. No Irrigation occurred this week on either the north or south Blocks. Soil moisture has remained well in the comfort zone after this week’s rain. Soil moisture will be monitored with the expectation that no more irrigation will be required this season but if we have an extended dry period we will start the irrigation up again.

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

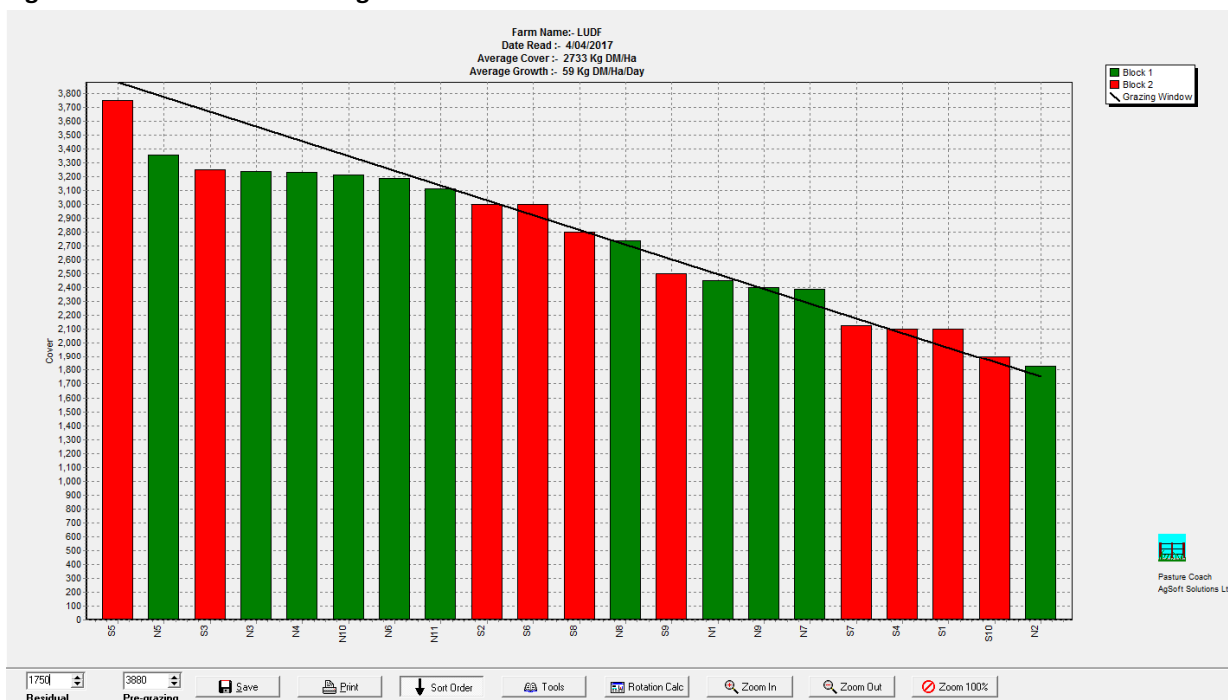


20. N Fertilizer was applied to 24.72 ha of the farm. Season to date, 165 kgN/ha has been applied on average across the whole farm. This is in line with the target to apply up to 170kgN/ha and finish applying N around the 10th April 2017.

Pasture and Feed Management

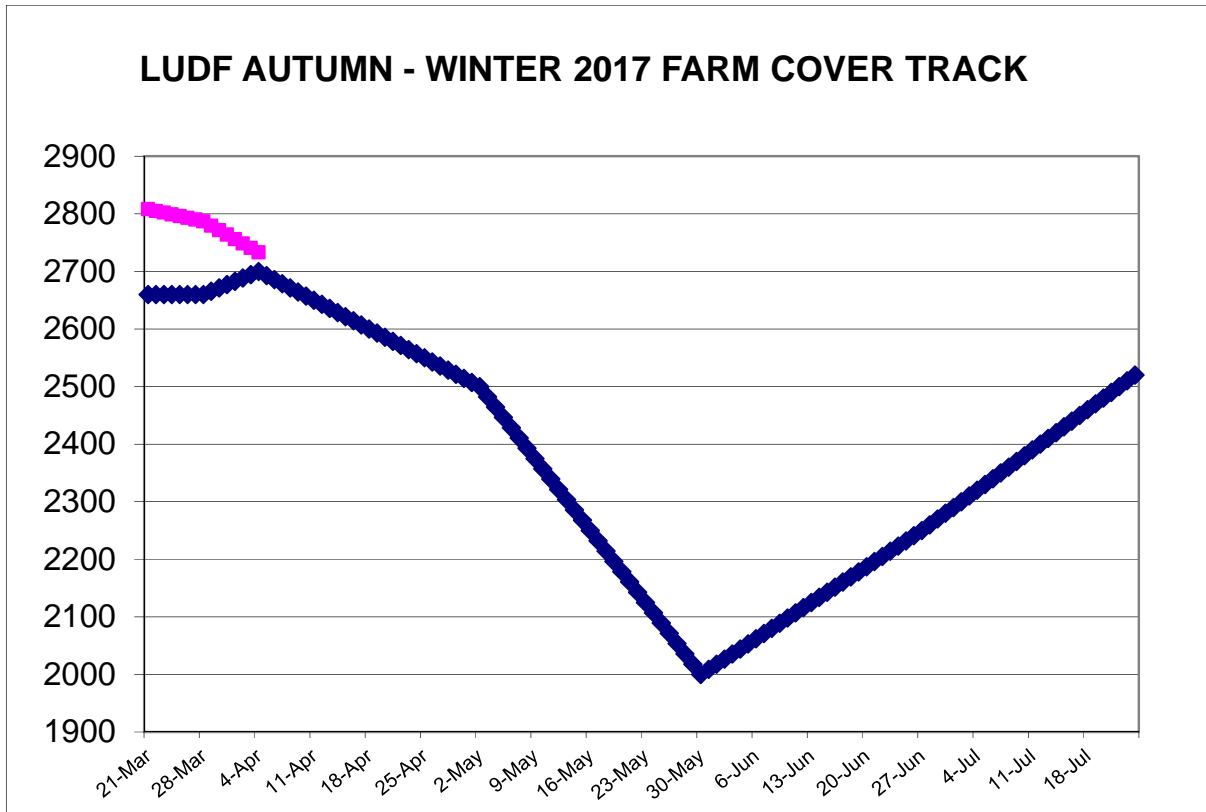
21. Cows have managed a 31 day round this week using 3 Kg DM/cow/day silage fed and 0.99 Kg DM fodder average for the week (slowly increased through the week).
22. Fodder Beet has been lifted and was introduced to the herd at around 0.8 kgDM/cow about 9 days ago, together with the silage. Bulbs were initially run over and broken by the tractor to entice cows to eat them as the herd had largely not been on fodder beet before. We offered around 1kg per day until yesterday when the amount was lifted to around 1.4 kgDM/cow/day. The uptake by the cows has been really good, with all of them now appearing to eat fodderbeet.
23. Rising Plate Meter data collected on the farm walk continues as an average of 2-3 plate meters and some discussion on the likely available feed that the herd will consume. This change in approach (since early February) has provided a more realistic data set, including APC and growth rates that appear to better align with apparent cow intake.
24. Pasture quality from samples collected on 29th March showed an average of 13.7% DM (a little higher than the previous week's 12.3 % DM).
 - a. Energy content similar to the previous week (11.6 MJME/kgDM)
 - b. Protein levels a little lower (19 vs 19.8%)
 - c. NDF higher (45.5 vs 44.1%).

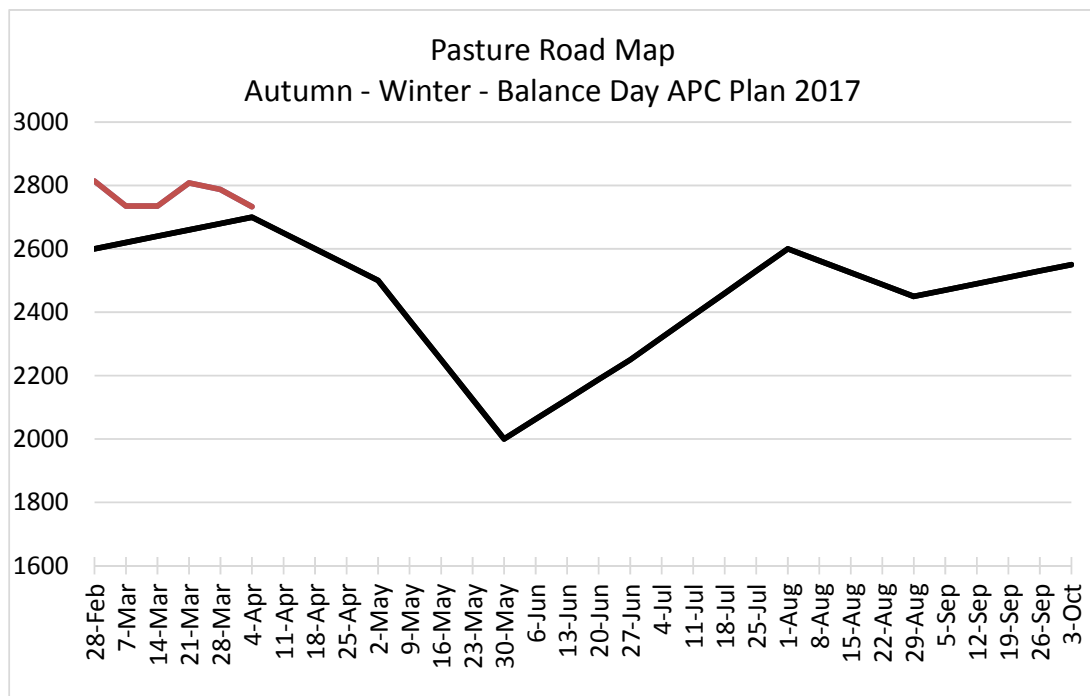
Figure 3: This week's feed wedge



25. The demand line on the pasture wedge graph is calculated as follows:
 - a. 543 cows on 160 ha: 3.4 cows/ha.
 - b. In terms of round length, we plan round length for the coming week is 35 days over 160 ha or 4.57 ha/day
 - c. The dry matter intake for the current level of milksolids production is around 18 kgDM/cow/day
 - d. Total demand: 18 kgDM/cow/day x 543 average cows for the week = 9774 kgDM/day (61 kgDM/ha/day)
 - e. Demand (if supplied solely from pasture) of 9774 kgDM/day from 4.57 ha /day requires 2138 kgDM/ha available.
 - f. Assuming the target residual is 1750kgDM/ha, target pregraze covers are 3888 kgDM/ha. (1750 kgDM/ha + 2138 kgDM/ha = 3,888 kgDM/ha pregraze cover).
 - g. Target APC would therefore be $(3888+1750)/2 = 2819$ kgDM/ha
26. The feed wedge above is showing a deficit of around 15 tDM total at this stage.
27. Average pasture cover this week has virtually not changed from last week.

28. The wedge above estimated a growth for the week of about 59 kgDM/ha/day and the pregrazing covers were calculated to feed cows on grass only, holding a 35 day round.
29. In reality, the farm achieved a 31 day round feeding a total of 4 kgDM/ha supplement, which means that the growth rates are still being overestimated by about 13-15 kgDM/ha/day.
30. Having now started feeding fodderbeet we want to continue this so any additional growth rate will be used to extend the round length, rather than replace fodderbeet in the diet.
31. The autumn APC cover track below shows the intended decrease in cover over the autumn. This is equivalent to 50kg/ha/week decrease through April, or about 7kgDM/ha/day (2kgDM/cow/day) of feed supply. The autumn-Winter Average Pasture Cover tracker aids with meeting targets for dry off cover and cover at the start of calving.





Feeding Management for the coming week:

32. As we are now into April, the ideal is to hold to a 35 day round.
33. To achieve this, the current feed wedge suggests that we could do it without supplements. However, given previous comments, the supplement and the fodder beet will remain in the diet.
34. The amount of silage accompanying the fodder beet will differ on a paddock per paddock basis, based on residuals and cow behaviour.
35. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day.
36. The farm will continue to apply Nitrogen fertilizer following grazing for the next week, applying Urea at 25kgN/ha to the non-effluent areas of the farm.

LUDF Weekly report	7-Mar-17	14-Mar-17	21-Mar-17	28-Mar-17	4-Apr-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	1/0/0/0	1/0/0/0	1/0/0/0	1/0/0/0	1/0/0/0
Culls (Includes culls put down & empties)	0	0	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	0	1	0	0	0
Deaths total to date	14	15	15	15	15
Calved Cows available (Peak Number 560...)	543	542	542	542	542
Treatment / Sick mob total	3	4	5	2	1
Mastitis clinical treatment	3	3	2	2	1
Mastitis clinical YTD (tgt below 64 yr end)	60	63	65	67	68
Bulk milk SCC (tgt Avg below 150)	140	151	163	176	146
Lame new cases	6	4	3	4	16
Lame ytd	113	117	120	124	140
Lame days YTD (Tgt below 1000 yr end)	3365	3540	3722	3794	3962
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	540	513	511	522	501
Milking once a day into vat	26	25	26	18	40
Small herd	158	157	158	159	150
Main Herd	356	356	353	363	351
MS/cow/day (Actual kg / Cows into vat only)	1.74	1.69	1.70	1.72	1.64

Milk Protein/Fat ratio	0.79	0.80	0.79	0.81	0.79
Milk Fat %	5.43	5.55	5.77	5.64	5.76
Milk Protein %	4.31	4.41	4.54	4.55	4.56
MS/cow to date (total kgs / Peak Cows 560	400	413	423	433	445
MS/ha/day (total kgs / ha used	5.87	5.68	4.27	5.76	5.53
Herd Average Cond'n Score	0.00	0.00	4.30	0.00	0.00
Monitor group LW kg WOW 281 early calvers	495	501	503	499	495
Soil Temp Avg Aquaflex	16.9	14.4	14.4	14.5	15.5
Growth Rate (kgDM/ha/day)	65	66	77	57	59
Plate meter height - ave half-cms	16.0	16.0	16.5	15.8	16.0
Ave Pasture Cover (x140 + 500)	2735	2735	2808	2716	2733
Surplus/[deficit] on feed wedge- tonnes	0	0	0	0	0
Pre Grazing cover (ave for week)	3636	3537	3900	3750	3559
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3800	3888	3743	3610	3850
Area grazed / day (ave for week)	5.62	5.12	4.92	5.10	5.23
Grazing Interval	28	31	33	31	31
Milkers Offered/grazed kg DM pasture	18.3	15.6	12.1		14
Estimated intake pasture MJME	216	184	142		160
Milkers offered kg DM Grass silage	1	5	5		3
Silage MJME/cow offered	11	11	11		11
Estimated intake Silage MJME	11	51	57		33
Estimated total intake MJME	227	235	199		200 (inc FB)
Target total MJME Offered/eaten (includes 6% waste)	0	0	0		
Pasture ME (pre grazing sample)	11.8	11.8	11.7	0.0	11.6
Pasture % Protein	20	22.9	18.9	0.0	19.0
Pasture % DM - Concern below 16%	14.3	14.5	14.9	0.0	13.7
Pasture % NDF Concern < 33	42.7	38.5	41.8	0.0	45.5
Mowed pre or post grazing YTD	277.2	277.2	277.2	277.2	277.2
Total area mowed YTD	310.4	310.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	87.8	119.5	154.7	166.3	195.3
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	25units / 29.1%	0	25units/ 29.1%	25units/ 17.7%	25units/15.4 %
Kgs N to Date (whole farm)	152	152	157	161	165
Rainfall (mm)	0	52.2	9.4	9.4	9.8
Aquaflex topsoil relative to fill point target 60 - 80%	50-60	100-100	90-100	80-90	70-90

Next farm walk: Tuesday 11th April 2017 at 9am. 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.