

## Lincoln University Dairy Farm - Farm Walk notes

Tuesday 28 March 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

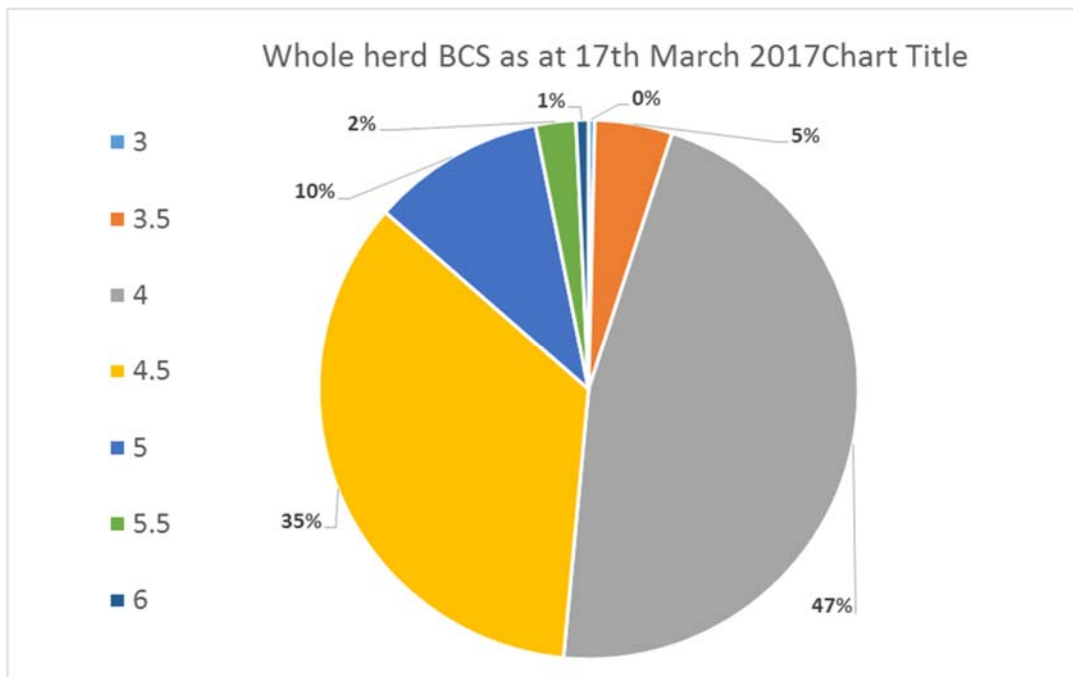
1. **Observe grazing behaviour of herd as fodderbeet has been introduced into the diet.**
2. **Hold the rotation length to minimum 30 days and likely 35 days as we head into the autumn**
3. **Set the farm and herd up for next season with round length and BCS monitoring and management**
4. **Remain focussed 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 28 March 2017

Ave Pasture Cover	2787 kgDM/ha	Pasture Growth Rate	57 kgDM/ha/day
Round length	31 days	Ave Supplement used	1.94 Kg/Dm/Day
No Cows on farm	543	Ave Soil Temp (week)	14.5°C
Kg MS/cow (546 cows)	1.72	SCC	176,000
Milk Protein : Fat ratio	0.81	Protein: 4.55%	Fat: 5.64%

### Herd Management

6. A total of 543 calved cows are on farm. There are 2 milking herds, the small herd comprises 159 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13<sup>th</sup> January 2017) and the large herd is 363 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 522 cows on twice a day milking, 18 once a day.
8. There were 2 new case of mastitis over the past week (67 clinical cases season to date vs 91 cases at the same time last season).
9. This week, there were 4 new cases of lameness (124 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 504 kgLWT, 4 kgLWT lower than last week. The monitor group (281 early calving MA cows) has also decreased by 4 kg to 499 kgLWT.
12. The herd was BCS on the 17<sup>th</sup> March. The average BCS of the whole herd was 4.3 (an increase of 0.1 BCS since the 16<sup>th</sup> 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 23<sup>rd</sup> March.

#### Reproductive performance:

##### 15. Cows:

- a. 10 weeks mating started on 25 October and finished 4<sup>th</sup> 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.

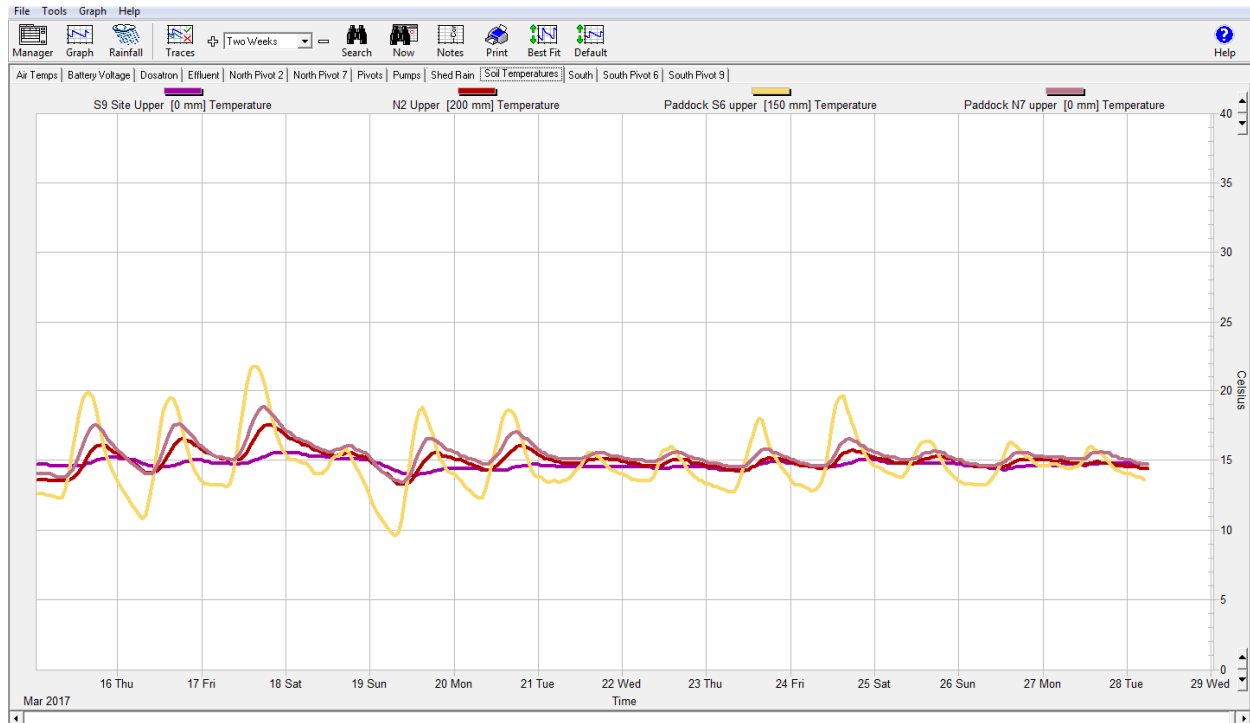
##### 16. Replacement heifers:

- a. 9 weeks mating started for R2 2015 born heifers on 11<sup>th</sup> October 2016.
- b. A scan on the 19<sup>th</sup> 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 14.5°C same as last week (15.7°C at the same time last year).

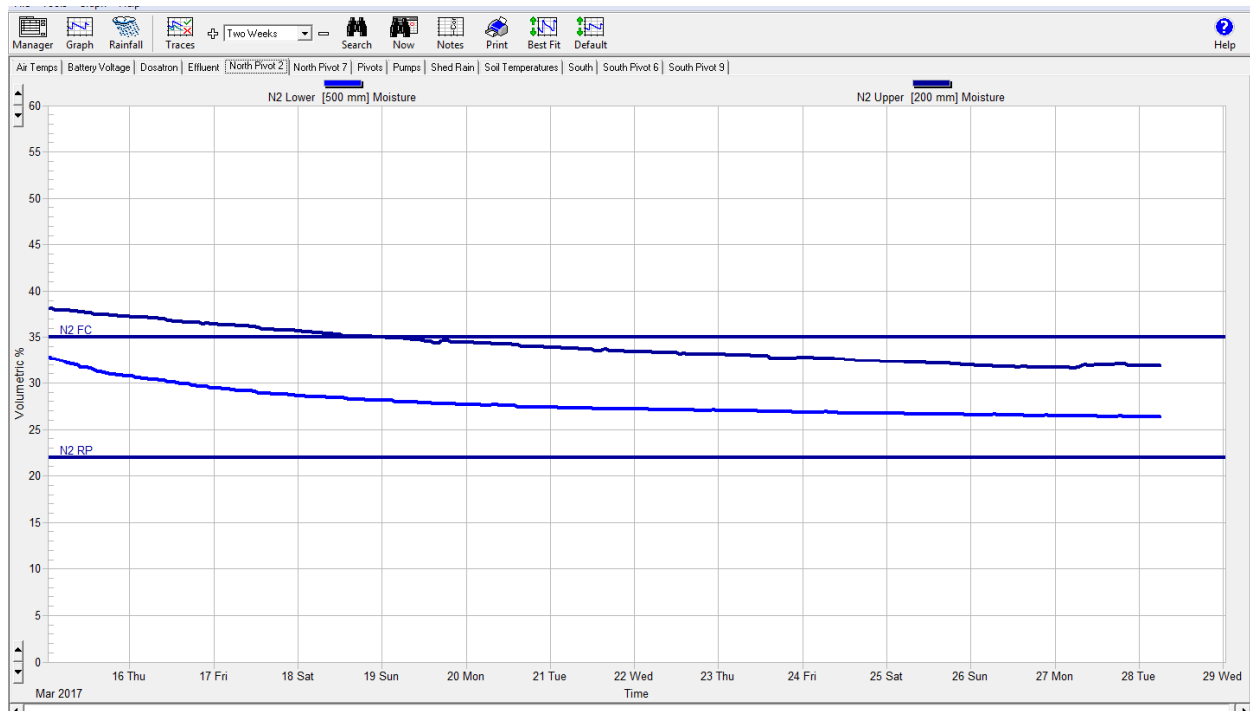
**Figure 1: Soil temperature history for the last 2 weeks**



18. The farm has had 9.4 mils over this past week (rain is supposed to be falling in the second half of this week).

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)**



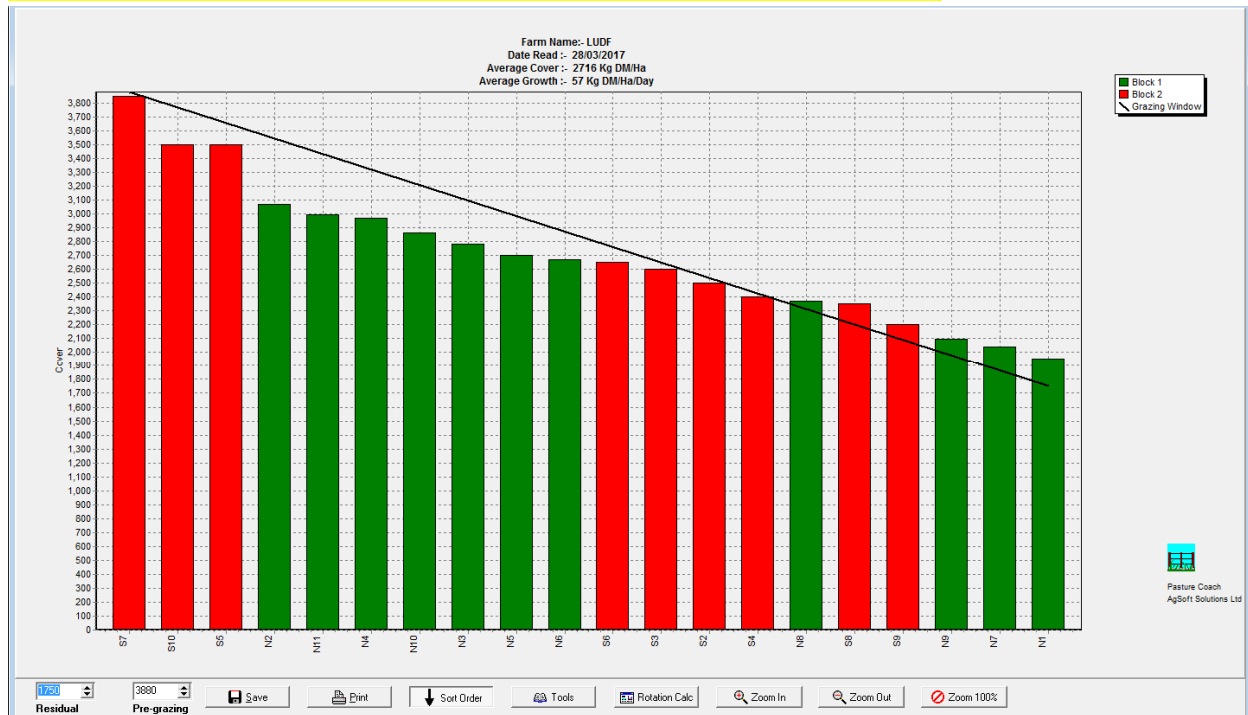
20. N Fertilizer was applied to 28.3 ha of the farm. Season to date, 161 kgN/ha has been applied on average across the whole farm. This is in line with the target to apply up to 170kgN/ha and finish applying N around the 10<sup>th</sup> April 2017.

### Pasture and Feed Management

21. Cows have managed a 31 day round this week using 1.69 Kg DM/cow/day silage fed and 0.88 Kg DM fodder beet fed for 2 days. The total supplement fed averages 6.6kgDM/ha/day or 1.95kgDM/cow/day.
22. Fodder Beet has been lifted and was introduced to the herd at around 0.8 kgDM/cow on Monday, together with the silage. Bulbs are being run over and broken by the tractor to entice cows to eat them. Cows have not been on fodder beet before and are expected to be slow to start eating it. We will offer around 1kg per day until we observe a good percentage of the herd eating it. On observation, uptake has been good with little whole bulbs left in the paddock and all broken bulbs have been chewed on.
23. The focus of offering a high daily intake of high quality pasture, while achieving a low and consistent residual continues so that high quality pasture is available again at the next round.
24. The consistent warm soil temperatures remain favourable to clover growth, with good levels of clover evident in most paddocks across the whole farm.
25. 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.
26. Pasture quality from samples collected on 15<sup>th</sup> March showed an average of 14.9% DM (a little higher than the previous week).
  - a. Energy content similar to the previous week (11.7 MJME/kgDM)
  - b. Protein levels lower than previous week (19 vs 23%)
  - c. NDF higher (42 vs 38.5%).

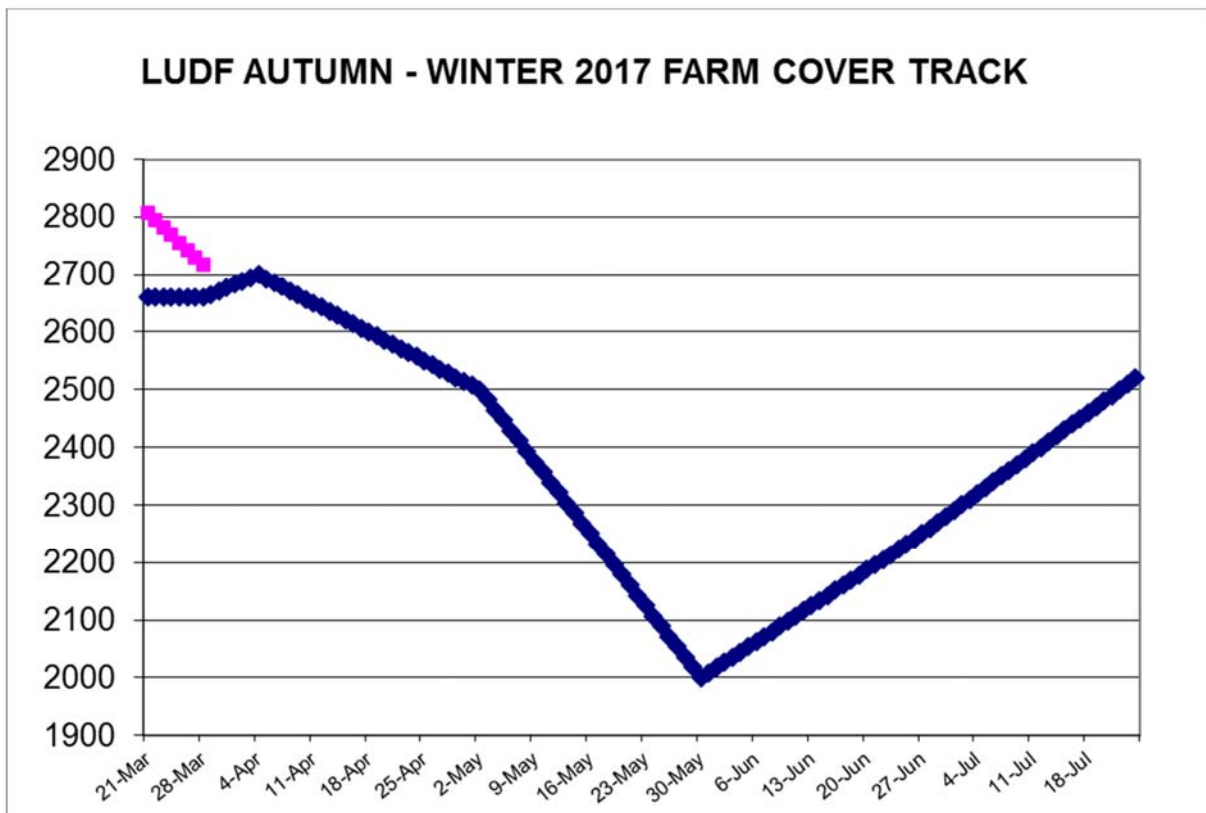
**Figure 3: This week's feed wedge**

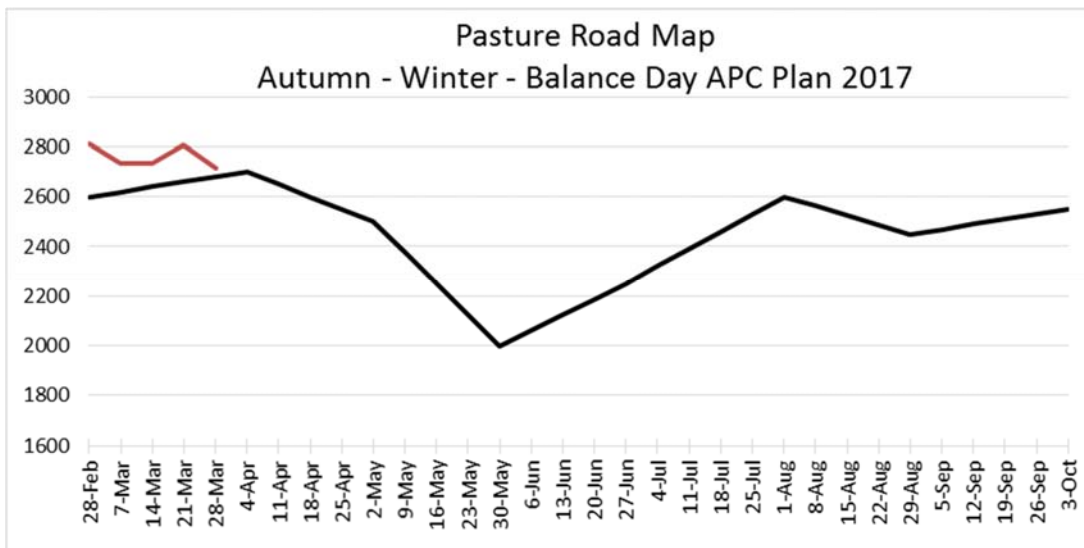
**NOTE missing one paddock – S1 @ 3181kgDM/ha. APC is therefore 2787kgDM/ha**



27. 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 are holding to a rotation of at least 30 days. Planned 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
28. It appears that the revision of plating technique has reduced much of the previous overestimation of pasture covers and subsequently growth rates, with the data more closely aligning with what cow observation indicates.
29. The feed wedge above is showing a deficit of around 17 tDM total at this stage.
30. Average pasture cover this week has decreased by 21 kgDM/ha for the week. Last week's wedge estimated we'd be able to feed all cows on grass only with a 35 day round. The reality was that the farm held a 31 day round with a little silage and fodder beet coming in. As average pasture cover dropped by approx. 3 kgDM/ha/day and approx. 7 kgDM/ha supplement was fed implies actual growth was not as high as the stated 57 kgM/ha/day. (ie demand of 61 less 3 from decrease in APC less 7 fed as silage = 51kgDM/ha/day likely growth rate)
31. At this time year, we start using our Autumn-Winter Average Pasture Cover tracker weekly and monthly, to ensure targets for dry off cover and cover at the start of calving are met.





**Feeding Management for the coming week:**

32. Being the end March, the aim is now to hold to a 35 day round.
33. To achieve this, the current feed wedge suggests that some silage needs to be brought in for the week. The fact that the fodder beet has now been started and will not be stopped until the cows go to the wintering block, means that the silage and the beet will continue to be brought into the diet from now. The amount of silage accompanying the fodder beet will differ on a paddock per paddock basis, based on residuals and cow behaviour.
34. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day.
35. The farm will continue to apply Nitrogen fertilizer following grazing for the next 2 weeks, applying Urea at 25kgN/ha to the non-effluent areas of the farm.

LUDF Weekly report	28-Feb-17	7-Mar-17	14-Mar-17	21-Mar-17	28-Mar-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	0	1	0	0
Deaths total to date	14	14	15	15	15
Calved Cows available (Peak Number 560...)	543	543	542	542	542
Treatment / Sick mob total	0	3	4	5	2
Mastitis clinical treatment	0	3	3	2	2
Mastitis clinical YTD (tgt below 64 yr end)	57	60	63	65	67
Bulk milk SCC (tgt Avg below 150)	116	140	151	163	176
Lame new cases	3	6	4	3	4
Lame ytd	107	113	117	120	124
Lame days YTD (Tgt below 1000 yr end)	3183	3365	3540	3722	3794
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	526	540	513	511	522
Milking once a day into vat	17	26	25	26	18
Small herd	159	158	157	158	159
Main Herd	367	356	356	353	363
MS/cow/day (Actual kg / Cows into vat only)	1.74	1.74	1.69	1.70	1.72
Milk Protein/Fat ratio	0.79	0.79	0.80	0.79	0.81
Milk Fat %	5.35	5.43	5.55	5.77	5.64
Milk Protein %	4.24	4.31	4.41	4.54	4.55
MS/cow to date (total kgs / Peak Cows 560)	386	400	413	423	433

MS/ha/day (total kgs / ha used	5.90	5.87	5.68	4.27	5.76
Herd Average Cond'n Score		0.00	0.00	4.30	0.00
Monitor group LW kg WOW 281 early calvers	490	495	501	503	499
Soil Temp Avg Aquaflex	17.3	16.9	14.4	14.4	14.5
Growth Rate (kgDM/ha/day)	69	65	66	77	57
Plate meter height - ave half-cms		16.0	16.0	16.5	15.8
Ave Pasture Cover (x140 + 500)	2814	2735	2735	2808	2787
Surplus/[deficit] on feed wedge- tonnes	14	0	0	0	0
Pre Grazing cover (ave for week)	3514	3636	3537	3900	3750
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3700	3800	3888	3743	3610
Area grazed / day (ave for week)	5.67	5.62	5.12	4.92	5.10
Grazing Interval	28	28	31	33	31
Milkers Offered/grazed kg DM pasture	16.0	18.3	15.6	12.1	0.0
Estimated intake pasture MJME	192	216	184	142	0
Milkers offered kg DM Grass silage		1	5	5	0
Silage MJME/cow offered		11	11	11	0
Estimated intake Silage MJME		11	51	57	0
Estimated total intake MJME	192	227	235	199	0
Target total MJME Offered/eaten (includes 6% waste)		0	0	0	0
Pasture ME (pre grazing sample)	11.9	11.8	11.8	11.7	0.0
Pasture % Protein	22.8	20	22.9	18.9	0.0
Pasture % DM - Concern below 16%	15	14.3	14.5	14.9	0.0
Pasture % NDF Concern < 33	39.8	42.7	38.5	41.8	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)	79.7	87.8	119.5	154.7	166.3
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	25units / 18.7%	25units / 29.1%	0	25units/ 29.1%	25units/ 17.7%
Kgs N to Date (whole farm)	145	152	152	157	161
Rainfall (mm)	0	0	52.2	9.4	9.4
Aquaflex topsoil relative to fill point target 60 - 80%	50-70	50-60	100-100	90-100	80-90

Next farm walk: Tuesday 4<sup>th</sup> 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.

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

## Lincoln University Dairy Farm - Farm Walk notes

Tuesday 21 March 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. **Hold the rotation length to minimum 30 days and likely 30+ as we head into the autumn**
2. **Set the farm and herd up for next season with round length and BCS monitoring and management**
3. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production.**
4. **Monitor cow BCS changes.**

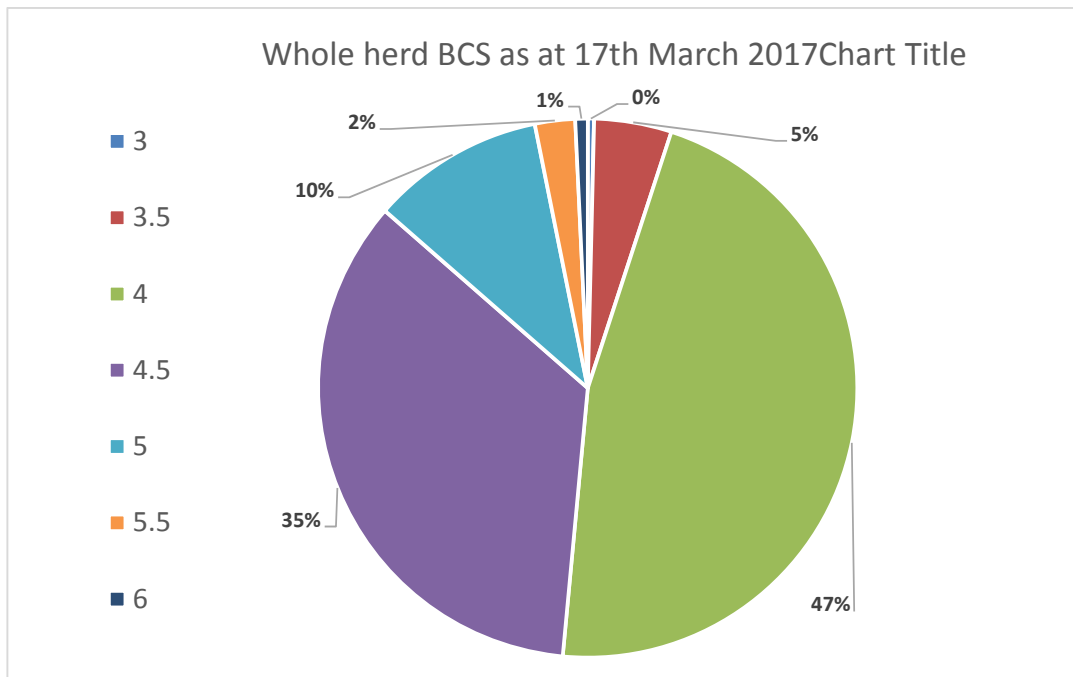
### Key Numbers - week ending Tuesday 21 March 2017

Ave Pasture Cover	2808 kgDM/ha	Pasture Growth Rate	71 kgDM/ha/day
Round length	32.5 days	Ave Supplement used	5.15 Kg/Dm/Day
No Cows on farm	543	Ave Soil Temp (week)	14.4°C
Kg MS/cow (546 cows)	1.7	SCC	163,000
Milk Protein : Fat ratio	0.79	Protein: 4.54%	Fat: 5.77%

### Herd Management

5. A total of 543 calved cows are on farm. There are 2 milking herds, the small herd comprises 158 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13<sup>th</sup> January 2017) and the large herd is 353 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)
6. There are 537 cows going into the vat, with 511 cows on twice a day milking, 26 once a day.
7. There were 2 new case of mastitis over the past week (65 clinical cases season to date vs 91 cases at the same time last season).
8. This week, there were 3 new cases of lameness (120 cases season to date vs 151 cases same time last year).
9. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
10. Average herd liveweight (whole herd) for the week was 508 kgLW, 2 kgLW higher than last week. The monitor group (281 early calving MA cows) has also increased by 2 kg to 503 kgLWT.
11. The herd was BCS on the 17<sup>th</sup> March. The average BCS of the whole herd was 4.3 (an increase of 0.1 BCS since the 16<sup>th</sup> 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.





12. 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 kgLW. 93% of these are above target, and the remainder on target.
13. 2015 born R2 will be weighed and vaccinated for Lepto as well as receive B12 plus Selenium on Thursday 23<sup>rd</sup> March.

**Reproductive performance:**

14. Cows:

- a. 10 weeks mating started on 25 October and finished 4<sup>th</sup> 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.

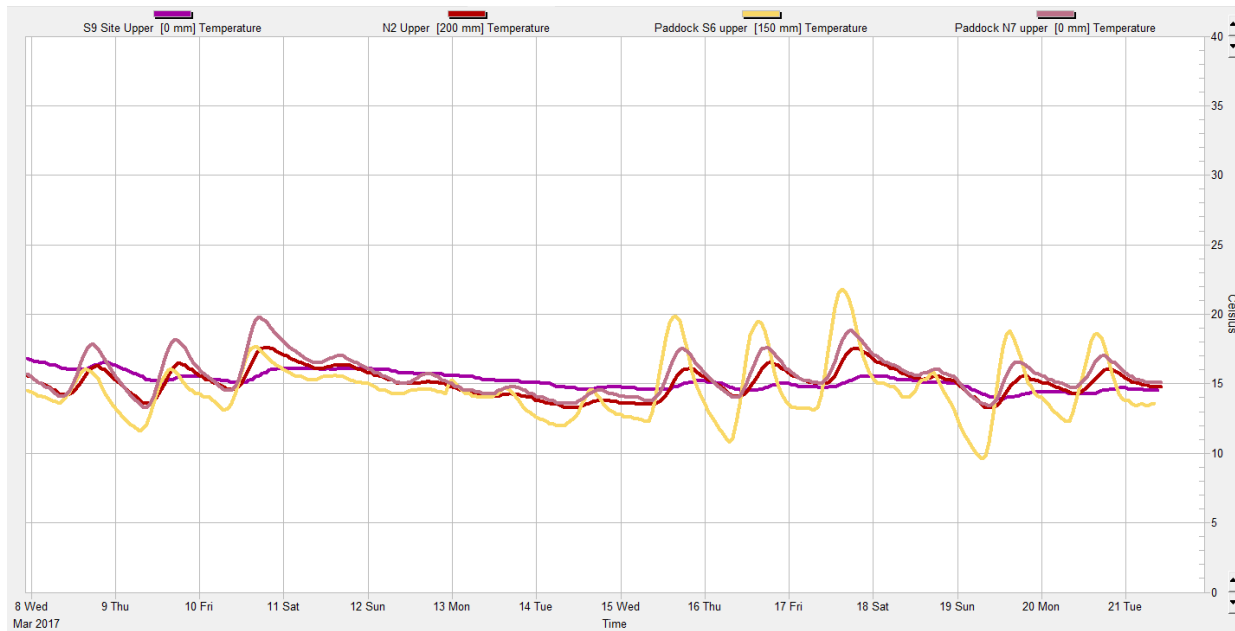
15. Replacement heifers:

- a. 9 weeks mating started for R2 2015 born heifers on 11<sup>th</sup> October 2016.
- b. A scan on the 19<sup>th</sup> 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**

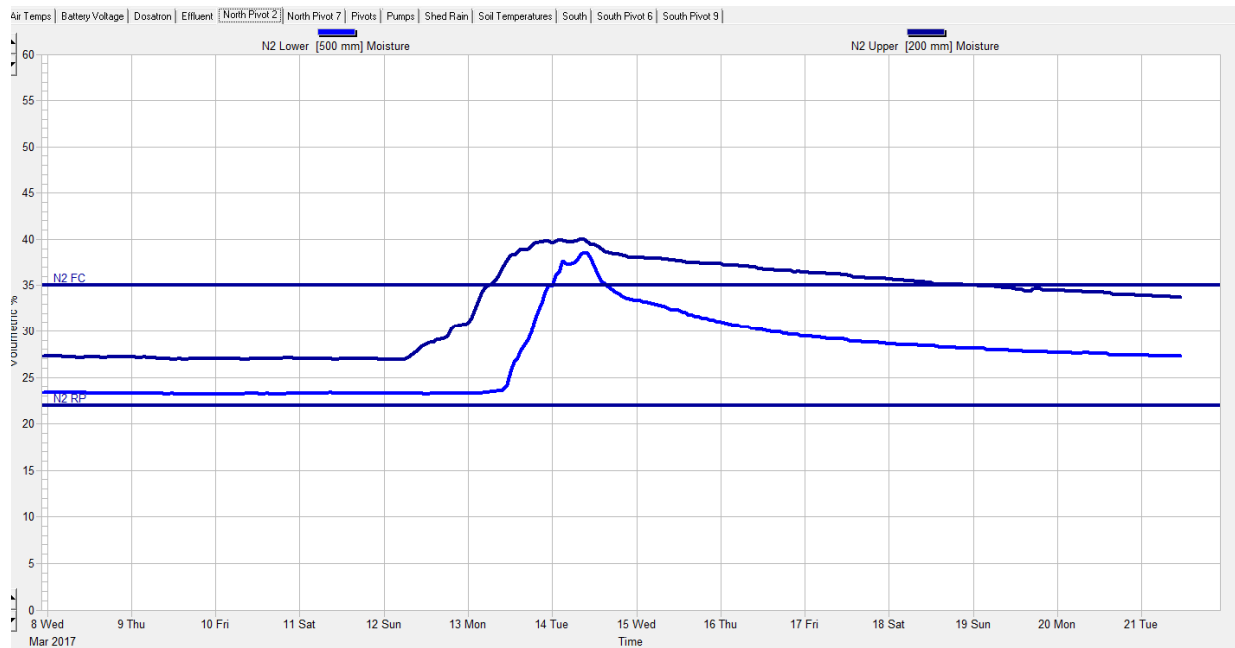
16. The average 9 am soil temperature for the past week has remained at 14.4°C from last week (15.2°C at the same time last year).

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



- 17. The farm has had 9.4 mils over this past week (rain is supposed to be falling in the second half of this week).
- 18. No Irrigation occurred this week on the north and south Blocks. Soil moisture have remain well in the comfort zone after last week’s rain.

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



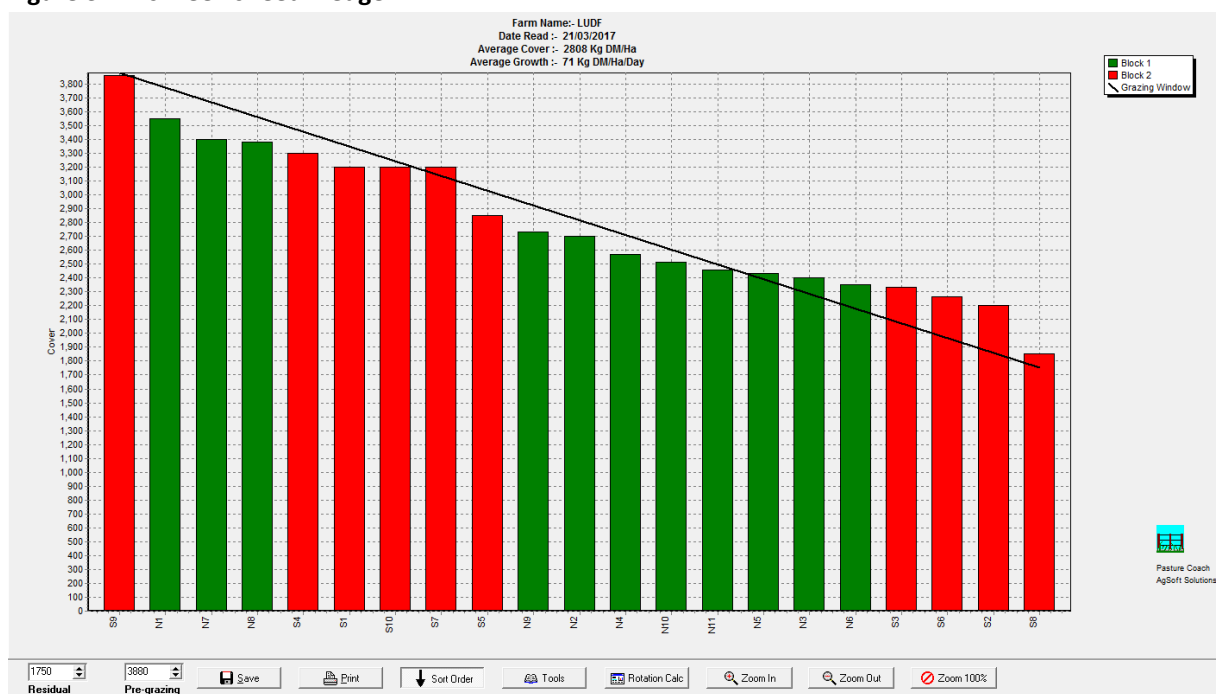
- 19. N Fertilizer was applied to 30.33 ha of the farm. Season to date, 157 kgN/ha has been applied on average across the 160 ha of the farm. This is in line with the target to apply up to 170kgN/ha and finish applying N around the 10<sup>th</sup> April 2017.

**Pasture and Feed Management**

- 20. Cows have managed a 32.5 day round this week using 5.15 Kg DM/cow/day silage fed
- 21. The focus of offering a high daily intake of high quality pasture, while achieving a low and consistent residual continues so that high quality pasture is available again at the next round.

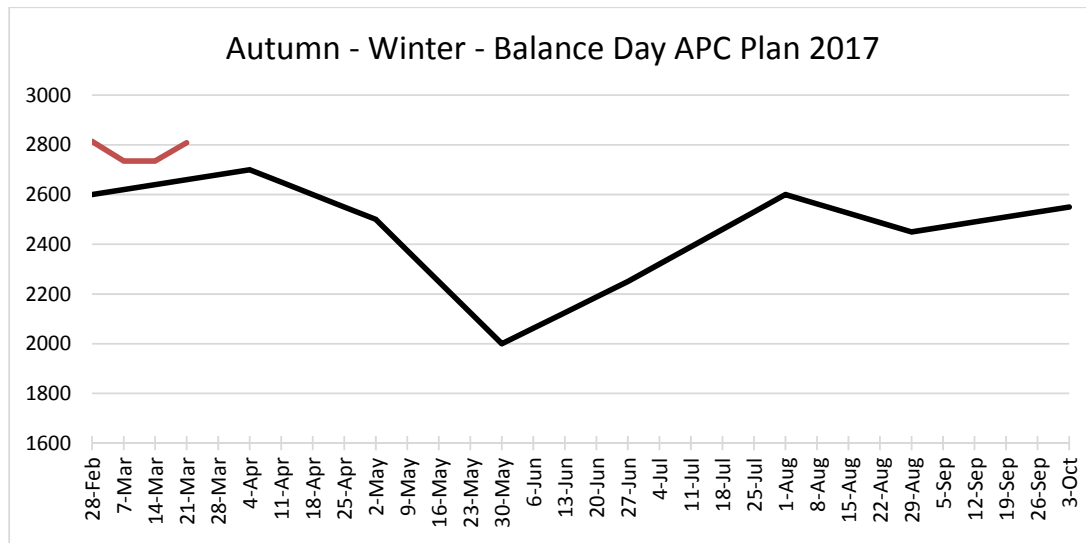
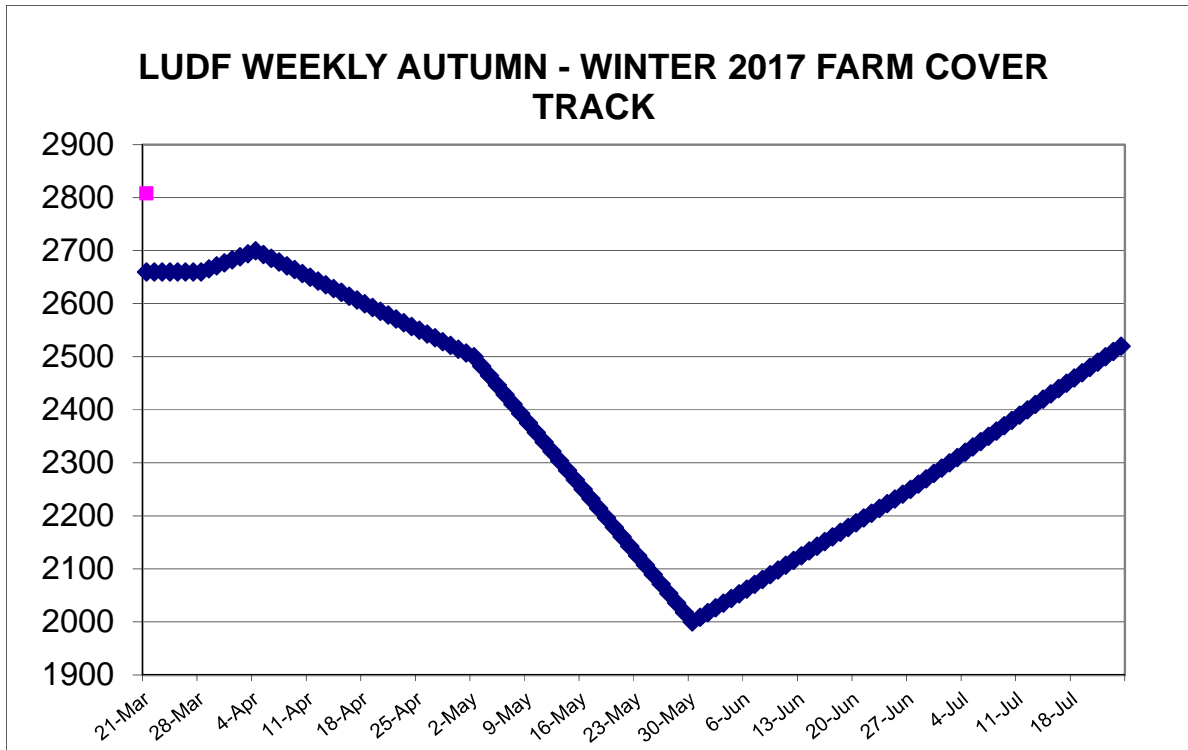
22. The consistent warm soil temperatures remain favourable to clover growth, with good levels of clover evident in most paddocks across the whole farm.
23. Rising Plate Meter data collected on the farm walk continues as an average of 2-3 plate meters and some discussion on the likely available feed 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 15<sup>th</sup> March showed an average of 14.9% DM (a little higher than the previous week).
  - a. Energy content similar to the previous week (11.7 MJME/kgDM)
  - b. Protein levels lower than previous week (19 vs 23%)
  - c. NDF higher (42 vs 38.5%).

**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 are holding to a rotation of at least 30 days. We will use 33-35 days round for the next few weeks to ensure we are looking towards our target. Planned 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 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. It appears that the revision of plating technique has reduced much of the previous overestimation of pasture covers and subsequently growth rates, with the data more closely aligning with what cow observation indicates. The feed wedge above is showing virtually no surplus available at this stage.
27. Average pasture cover this week has increased by 73 kgDM/ha from last week's, indicating pasture growth has exceeded demand for pasture (of the total demand of 61kgDM/ha/day, 17kgDM/ha/day has been met from pasture silage).

28. At this time year, we start using our Autumn-Winter Average Pasture Cover tracker weekly and monthly, to ensure targets for dry off cover and cover at the start of calving are met.



**Feeding Management for the coming week:**

- 29. The aim to hold to aim at 30+ day grazing round this week, with an emphasis on the + (aiming for 35 days round over the next week or 2). To achieve this, the current feed wedge suggests no silage is required however this will be evaluated on a paddock per paddock basis, taking into account weather conditions as well.
- 30. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day. Historically LUDF has experienced growth above demand during March so silage and round length will be manipulated with any surplus now pushed forward into a longer round.
- 31. The farm will continue to apply Nitrogen fertilizer following grazing for the next 2-3 weeks, applying Urea at 25kgN/ha to the non-effluent areas of the farm.

LUDF Weekly report	21-Feb-17	28-Feb-17	7-Mar-17	14-Mar-17	21-Mar-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	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)	2	0	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	0	0	0	1	0
Deaths total to date	14	14	14	15	15
Calved Cows available (Peak Number 560...)	544	543	543	542	542
Treatment / Sick mob total	1	0	3	4	5
Mastitis clinical treatment	0	0	3	3	2
Mastitis clinical YTD (tgt below 64 yr end)	57	57	60	63	65
Bulk milk SCC (tgt Avg below 150)	112	116	140	151	163
Lame new cases	6	3	6	4	3
Lame ytd	104	107	113	117	120
Lame days YTD (Tgt below 1000 yr end)	3064	3183	3365	3540	3722
Other/Colostrum		0	0	0	0
Milking twice a day into vat	521	526	540	513	511
Milking once a day into vat	22	17	26	25	26
Small herd	157	159	158	157	158
Main Herd	364	367	356	356	353
MS/cow/day (Actual kg / Cows into vat only)	1.83	1.74	1.74	1.69	1.70
Milk Protein/Fat ratio	0.81	0.79	0.79	0.80	0.79
Milk Fat %	5.32	5.35	5.43	5.55	5.77
Milk Protein %	4.32	4.24	4.31	4.41	4.54
MS/cow to date (total kgs / Peak Cows 560)	376	386	400	413	423
MS/ha/day (total kgs / ha used)	6.18	5.90	5.87	5.68	4.27
Herd Average Cond'n Score	4.2		0.00	0.00	4.30
Monitor group LW kg WOW 281 early calvers	495	490	495	501	503
Soil Temp Avg Aquaflex	16.0	17.3	16.9	14.4	14.4
Growth Rate (kgDM/ha/day)	92	69	65	66	77
Plate meter height - ave half-cms	16.5		16.0	16.0	16.5
Ave Pasture Cover (x140 + 500)	2811	2814	2735	2735	2808
Surplus/[deficit] on feed wedge- tonnes	8	14	0	0	0
Pre Grazing cover (ave for week)	3386	3514	3636	3537	3900
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3500	3700	3800	3888	3743
Area grazed / day (ave for week)	5.87	5.67	5.62	5.12	4.92
Grazing Interval	27	28	28	31	33
Milkers Offered/grazed kg DM pasture	19.2	16.0	18.3	15.6	12.1
Estimated intake pasture MJME	230	192	216	184	142
Milkers offered kg DM Grass silage	4		1	5	5
Silage MJME/cow offered	11		11	11	11
Estimated intake Silage MJME	43		11	51	57
Estimated total intake MJME	273	192	227	235	199
Target total MJME Offered/eaten (includes 6% waste)	0		0	0	0
Pasture ME (pre grazing sample)	12	11.9	11.8	11.8	11.7
Pasture % Protein	24	22.8	20	22.9	18.9
Pasture % DM - Concern below 16%	13.9	15	14.3	14.5	14.9
Pasture % NDF Concern < 33	37.7	39.8	42.7	38.5	41.8
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)	79.7	79.7	87.8	119.5	154.7
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47

Units N applied/ha and % of farm	25units /22.7%	25units/ 18.7%	25units/ 29.1%	0	25units/29.1%
Kgs N to Date (whole farm)	140	145	152	152	157
Rainfall (mm)	1.8	0	0	52.2	9.4
Aquaflex topsoil relative to fill point target 60 - 80%	50-70	50-70	50-60	100-100	90-100

Next farm walk: Tuesday 28<sup>th</sup> March 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.

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

## Lincoln University Dairy Farm - Farm Walk notes

Tuesday 14 March 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

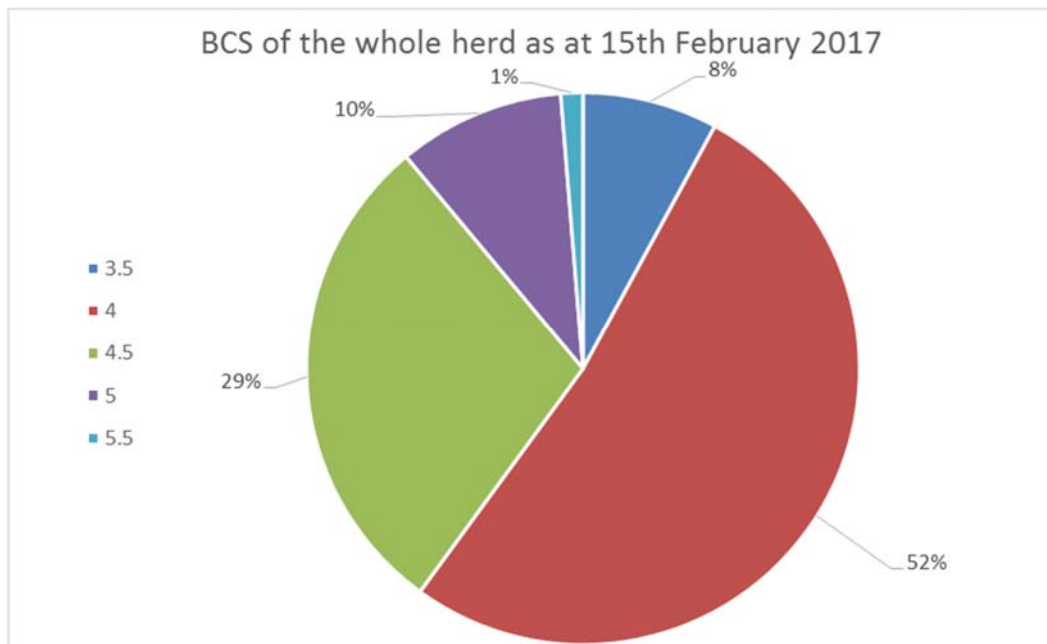
1. **Hold the rotation length to minimum 28 days and likely 30+ as we head into the autumn**
2. **Set the farm and herd up for next season with round length and BCS monitoring and management**
3. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production and reproductive results.**
4. **Monitor cow BCS changes.**

### Key Numbers - week ending Tuesday 14 March 2017

Ave Pasture Cover	2735 kgDM/ha	Pasture Growth Rate	66 kgDM/ha/day
Round length	31.3	Ave Supplement used	4.6 Kg/DM/Day
No Cows on farm	543	Ave Soil Temp (week)	14.4°C
Kg MS/cow (546 cows)	1.69	SCC	151,000
Milk Protein : Fat ratio	0.80	Protein: 4.41%	Fat: 5.55%

### Herd Management

5. A total of 543 calved cows are on farm. There are 2 milking herds, the small herd comprises 158 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13<sup>th</sup> January 2017) and the large herd is 356 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)
6. There are 538 cows going into the vat, with 513 cows on twice a day milking, 25 once a day.
7. There were 3 new case of mastitis over the past week (63 clinical cases season to date vs 91 cases at the same time last season).
8. This week, there were 4 new cases of lameness (116 cases season to date vs 145 cases same time last year).
9. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
10. Average herd liveweight (whole herd) for the week was 506 kgLW, an increase of 7 kg from last week. The monitor group (281 early calving MA cows) has also increased 6 kg to 501 kgLWT.
11. The herd was BCS on the 16<sup>th</sup> February. The average BCS of the whole herd was 4.2 (a drop of 0.1 BCS since the 13<sup>th</sup> January). 8% of the herd is below CS 4.0, 52% of cows are BC 4.0, 29% at 4.5 and 11% at 5 or above. 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 this month.



12. 2016 spring born replacement heifers have received their 7 in 1 vaccine booster and an IBR vaccine. They have been drenched and weighed on the 13<sup>th</sup> February 2017 and presented an average weight of 177 kg liveweight with 94% of them above target liveweight, 7% of them on target and 1 % below target.

**Reproductive performance:**

13. Cows:

- a. 10 weeks mating started on 25 October and finished 4<sup>th</sup> 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.

14. Replacement heifers:

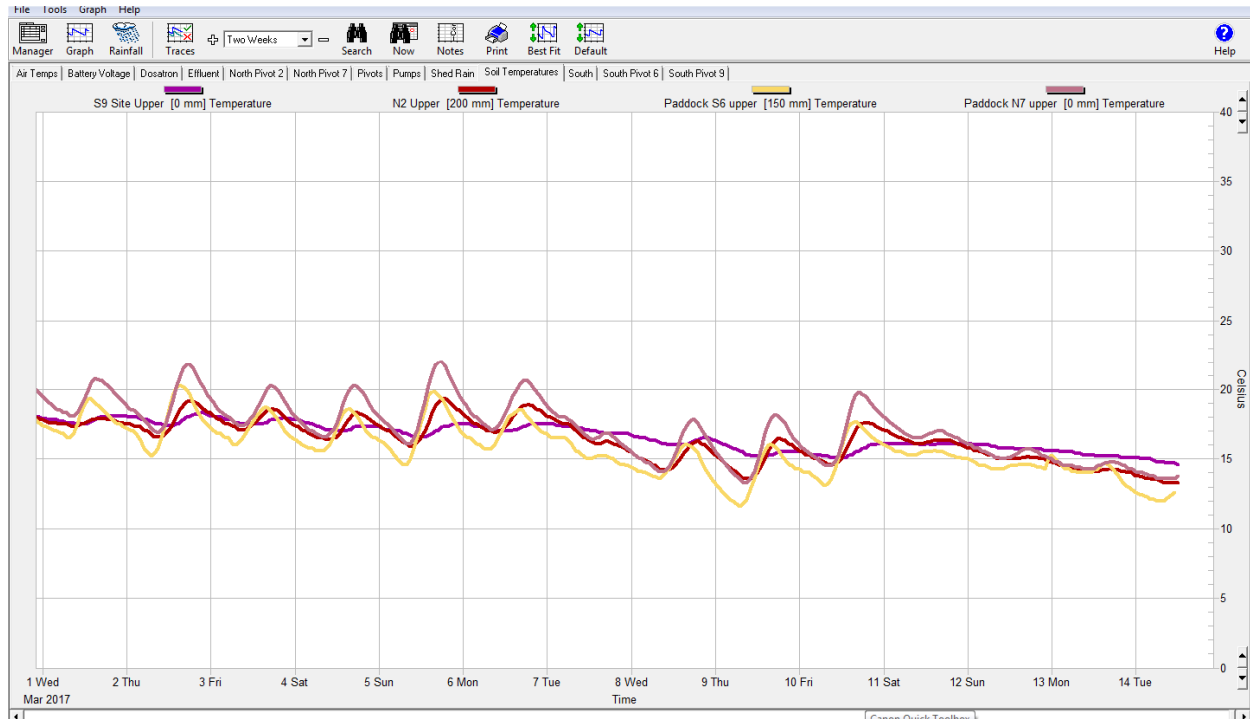
- a. 9 weeks mating started for R2 2015 born heifers on 11<sup>th</sup> October 2016.
- b. A scan on the 19<sup>th</sup> January gave a final result of 91% in calf.
- c. This results in 134 R2yr heifers InCalf or 24% available as replacements to enter the herd next calving. (2 have been culled since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

**Growing Conditions**

15. The average 9 am soil temperature for the past week was 14.4°C, 2.5°C lower than last week's (14.7°C at the same time last year).



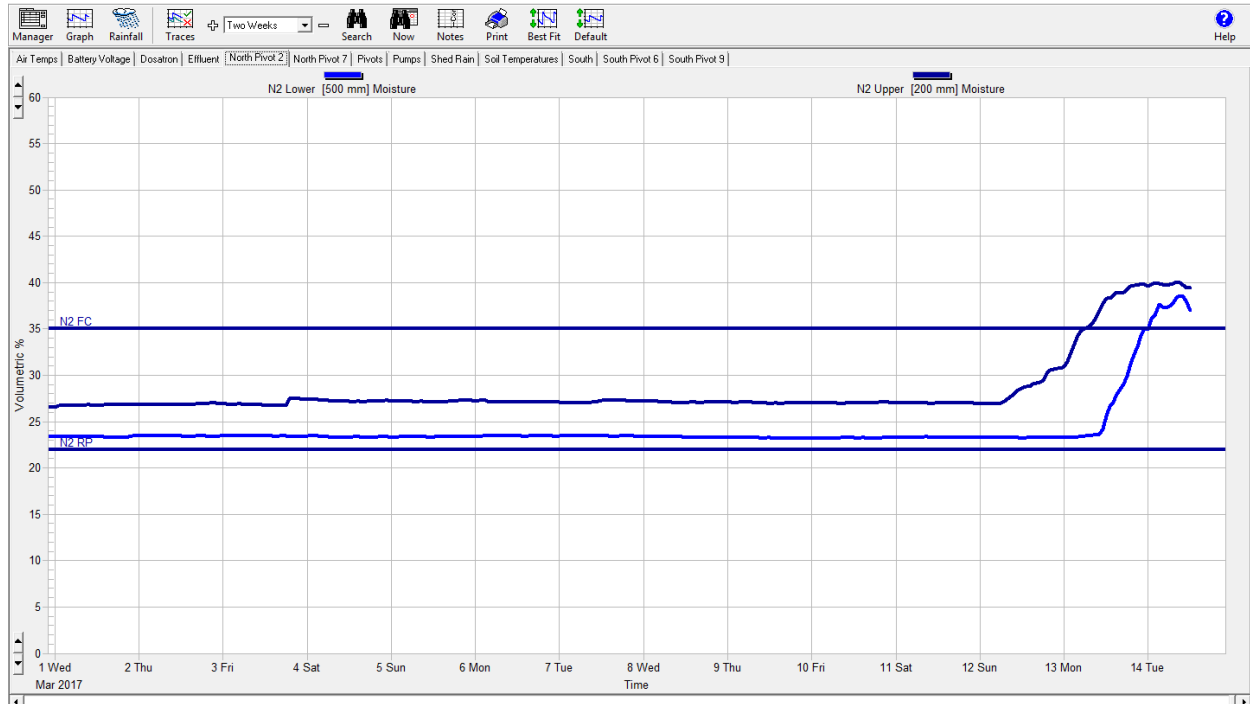
**Figure 1: Soil temperature history for the last 2 weeks**



16. The farm has had steady drizzle over the weekend and yesterday, and a small amount of rain earlier in the week. Soil moisture on north block has increased rapidly with the 52 mils of rain up to and including Monday.

17. No Irrigation occurred this week. Considering the lower ET's now occurring (shorter days and cooler temperatures) and soil moisture below, further irrigation is unlikely this season.

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

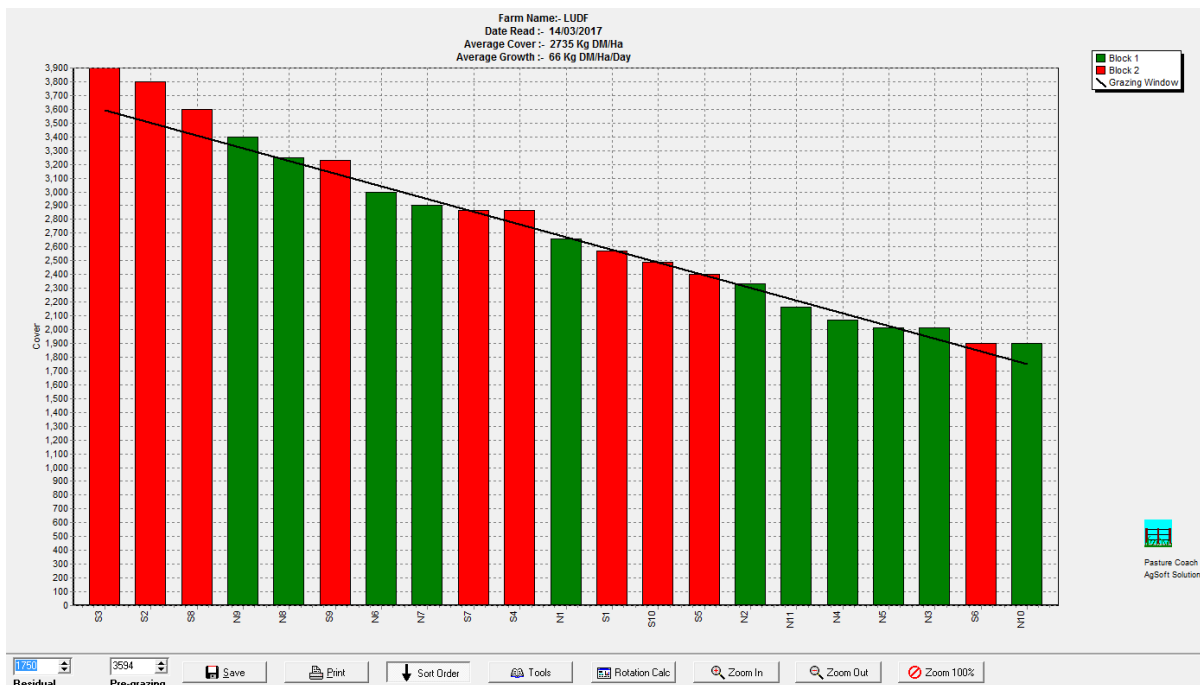


18. No N Fertilizer over the past week as the farm was mostly grazing north block effluent paddocks. Season to date, 152 kgN/ha has been applied on average across the 160 ha of the farm. This is in line with the target to apply up to 170kgN/ha and finish applying N around the 10<sup>th</sup> April 2017.
19. The non-effluent block of the north block has received the 100 Kg/Ha of potassium behind the cows.

### Pasture and Feed Management

20. Cows have managed a 31.3 day round this week using 4.62 Kg DM silage fed
21. The focus of offering a high daily intake of high quality pasture, while achieving a low and consistent residual continues so that high quality pasture is available again at the next round.
22. The consistent warm soil temperatures remain favourable to clover growth, with good levels of clover evident in most paddocks across the whole farm.
23. Rising Plate Meter data collected in recent months had appeared to routinely overestimate pregrazing pasture cover, and possibly post grazing covers also. This results in an overestimate of growth rate and impacts apparent average pasture cover. Throughout this time, grazing residuals have generally been 'low and consistent' with little remaining feed available – even at the higher plate meter readings.
24. To counteract this data collected in February and now into March is the result of a more considered focus on technique, using an average of 2-3 plate meters, combined with some discussion on the apparent yield in each paddock. This seems to be working well, with the data collected over recent weeks better aligning with apparent cow intake.
25. Pasture quality from samples collected on 8<sup>st</sup> March showed an average of 14.5% DM (similar to the previous week).
  - a. Energy content was also similar to the previous week (11.8 MJME/kgDM)
  - b. Protein levels higher and comparable to 2 weeks ago (23 vs 20%)
  - c. NDF lower (38.5% vs 42.7%).

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



26. The demand line on the pasture wedge graph is calculated as follows:
  - a. 544 cows on 160 ha: 3.4 cows/ha.
  - b. Planned minimum round length for the coming week is 30 days over 160 ha or 5.33 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 of 9774 kgDM/day from 5.33 ha /day requires 1834 kgDM/ha available.
  - f. Assuming the target residual is 1750kgDM/ha, target pregraze covers are 3584 kgDM/ha. (1750 kgDM/ha + 1834 kgDM/ha = 3,584 kgDM/ha pregraze cover).
  - g. Target APC would therefore be (3584+1750)/2 = 2667 kgDM/ha
27. The feed wedge above is showing a surplus of about 9 TDM total at this stage (1 days feed).
28. Average pasture cover this week is the same as last week, suggesting estimated pasture covers and growth rates are still slightly overstated and given that we have had to add silage every day (equivalent to 13kgDM/day).
29. It appears that the revision of plating technique has largely reduced the previous overestimation of pasture covers and subsequently growth rates, with the data more closely aligning with what cow observation indicates.

**Feeding Management for the coming week:**

- 30. The aim to hold to a minimum of 30 day grazing round this week. To achieve this, the current feed wedge suggests no silage is required however we think we are still overestimating grass available so some silage will be used as required to achieve the 30 day round.
- 31. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day. Historically LUDF has experienced growth above demand during March so silage and round length will be manipulated with any surplus now pushed forward into a longer round.
- 32. The farm will continue to apply Nitrogen fertilizer following grazing, applying Urea at 25kgN/ha to the non-effluent areas of the farm.

LUDF Weekly report	14-Feb-17	21-Feb-17	28-Feb-17	7-Mar-17	14-Mar-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	0/0/0	0/0/0	1/0/0/0	1/0/0/0	1/0/0/0
Culls (Includes culls put down & empties)	2	2	0	0	0
Culls total to date	22	22	22	22	22
Deaths (Includes cows put down)	0	0	0	0	1
Deaths total to date	14	14	14	14	15
Calved Cows available (Peak Number 560...)	544	544	543	543	542
Treatment / Sick mob total	2	1	0	3	4
Mastitis clinical treatment	2	0	0	3	3
Mastitis clinical YTD (tgt below 64 yr end)	57	57	57	60	63
Bulk milk SCC (tgt Avg below 150)	118	112	116	140	151
Lame new cases	3	6	3	6	4
Lame ytd	98	104	107	113	117
Lame days YTD (Tgt below 1000 yr end)	2910	3064	3183	3365	3540
Other/Colostrum			0	0	0
Milking twice a day into vat	521	521	526	540	513
Milking once a day into vat	21	22	17	26	25
Small herd	161	157	159	158	157
Main Herd	360	364	367	356	356
MS/cow/day (Actual kg / Cows into vat only)	1.82	1.83	1.74	1.74	1.69
Milk Protein/Fat ratio	0.80	0.81	0.79	0.79	0.80
Milk Fat %	5.26	5.32	5.35	5.43	5.55
Milk Protein %	4.24	4.32	4.24	4.31	4.41
MS/cow to date (total kgs / Peak Cows 560)	363	376	386	400	413
MS/ha/day (total kgs / ha used)	6.18	6.18	5.90	5.87	5.68
Herd Average Cond'n Score		4.2		0.00	0.00

Monitor group LW kg WOW 281 early calvers	484	495	490	495	501
Soil Temp Avg Aquaflex	15.0	16.0	17.3	16.9	14.4
Growth Rate (kgDM/ha/day)	70	92	69	65	66
Plate meter height - ave half-cms	15.4	16.5		16.0	16.0
Ave Pasture Cover (x140 + 500)	2652	2811	2814	2735	2735
Surplus/[deficit] on feed wedge- tonnes	0	8	14	0	0
Pre Grazing cover (ave for week)	3445	3386	3514	3636	3537
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3600	3500	3700	3800	3888
Area grazed / day (ave for week)	6.61	5.87	5.67	5.62	5.12
Grazing Interval	24	27	28	28	31
Milkers Offered/grazed kg DM pasture	14.8	19.2	16.0	18.3	15.6
Estimated intake pasture MJME	166	230	192	216	184
Milkers offered kg DM Grass silage	0	4		1	5
Silage MJME/cow offered	0	11		11	11
Estimated intake Silage MJME	0	43		11	51
Estimated total intake MJME	166	273	192	227	235
Target total MJME Offered/eaten (includes 6% waste)		0			
Pasture ME (pre grazing sample)	11.2	12	11.9	11.8	11.8
Pasture % Protein	18.6	24	22.8	20.0	23
Pasture % DM - Concern below 16%	14.7	13.9	15	14.3	14.5
Pasture % NDF Concern < 33	46	37.7	39.8	42.7	38.5
Mowed pre or post grazing YTD	272.3	277.2	277.2	277.2	277.2
Total area mowed YTD	305.4	310.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	55.2	79.7	79.7	87.8	119.5
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	25units /20.7%	25units /22.7%	25units/ 18.7%	25units/ 29.1%	0
Kgs N to Date (whole farm)	135	140	145	152	152
Rainfall (mm)	0.8	1.8	0	0	52.2
Aquaflex topsoil relative to fill point target 60 - 80%	50-70	50-70	50-70	50-60	100-100

Next farm walk: Tuesday 21<sup>st</sup> March 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.

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

## Lincoln University Dairy Farm - Farm Walk notes

Tuesday 07 March 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

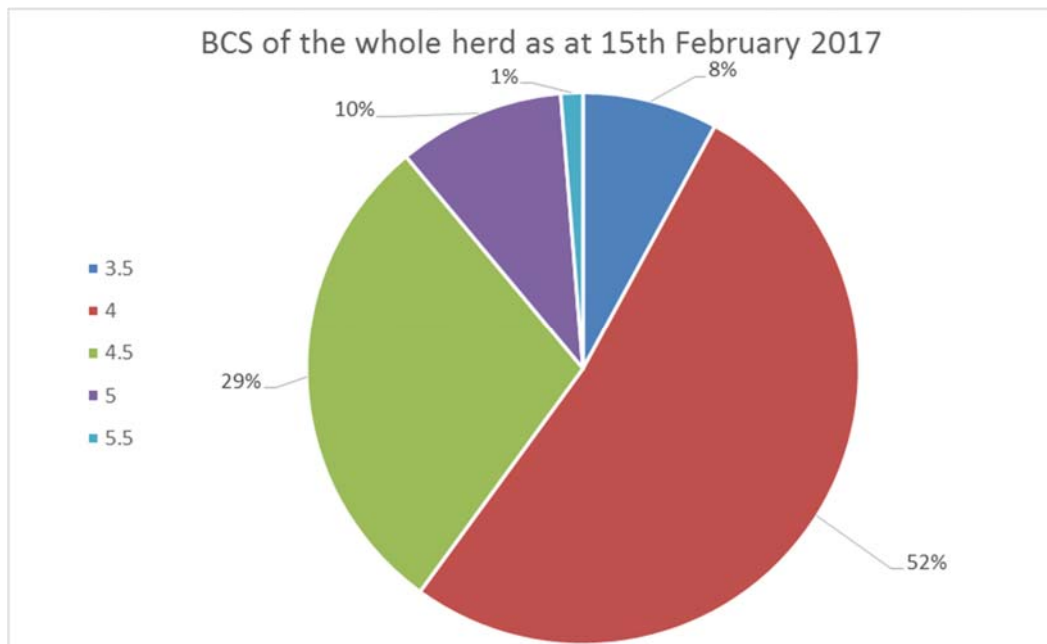
1. **Hold the rotation length to minimum 28 days and likely 30+ as we head into the autumn**
2. **Set the farm and herd up for next season with round length and BCS monitoring and management**
3. **Remain focussed on average pasture cover and pasture quality to ensure enough good quality pasture is offered daily to ensure good production and reproductive results.**
4. **Monitor cow BCS changes.**

### Key Numbers - week ending Tuesday 7 March 2017

Ave Pasture Cover	2735 kgDM/ha	Pasture Growth Rate	65 kgDM/ha/day
Round length	28	Ave Supplement used	1 Kg/Dm/Day
No Cows on farm	544	Ave Soil Temp (week)	16.9°C
Kg MS/cow (546 cows)	1.74	SCC	140,000
Milk Protein : Fat ratio	0.79	Protein: 4.31%	Fat: 5.43%

### Herd Management

5. A total of 544 calved cows are on farm. There are 2 milking herds, the small herd comprises 158 early 2017 calving, lower BCS cows (BCS below 4.5 as at the 13<sup>th</sup> January 2017) and the large herd is 356 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)
6. There are 540 cows going into the vat, with 514 cows on twice a day milking, 26 once a day.
7. There were 3 new case of mastitis over the past week (60 clinical cases season to date vs 90 cases at the same time last season).
8. This week, there were 6 new cases of lameness (113 cases season to date vs 141 cases same time last year).
9. Trace minerals and magnesium chloride are running through the stock water to all cows on the milking platform.
10. Average herd liveweight (whole herd) for the week was 499 kgLW, an increase of 4 kg from last week. The monitor group (281 early calving MA cows) has also increased 5 kg to 495 kgLWT.
11. The herd was BCS on the 16<sup>th</sup> February. The average BCS of the whole herd was 4.2 (a drop of 0.1 BCS since the 13<sup>th</sup> January). 8% of the herd is below CS 4.0, 52% of cows are BC 4.0, 29% at 4.5 and 11% at 5 or above. 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-March 2017.



12. 2016 spring born replacement heifers have received their 7 in 1 vaccine booster and an IBR vaccine. They have been drenched and weighed on the 13<sup>th</sup> February 2017 and presented an average weight of 177 kg liveweight with 94% of them above target liveweight, 7% of them on target and 1 % below target.

**Reproductive performance:**

13. Cows:

- a. 10 weeks mating started on 25 October and finished 4<sup>th</sup> 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.

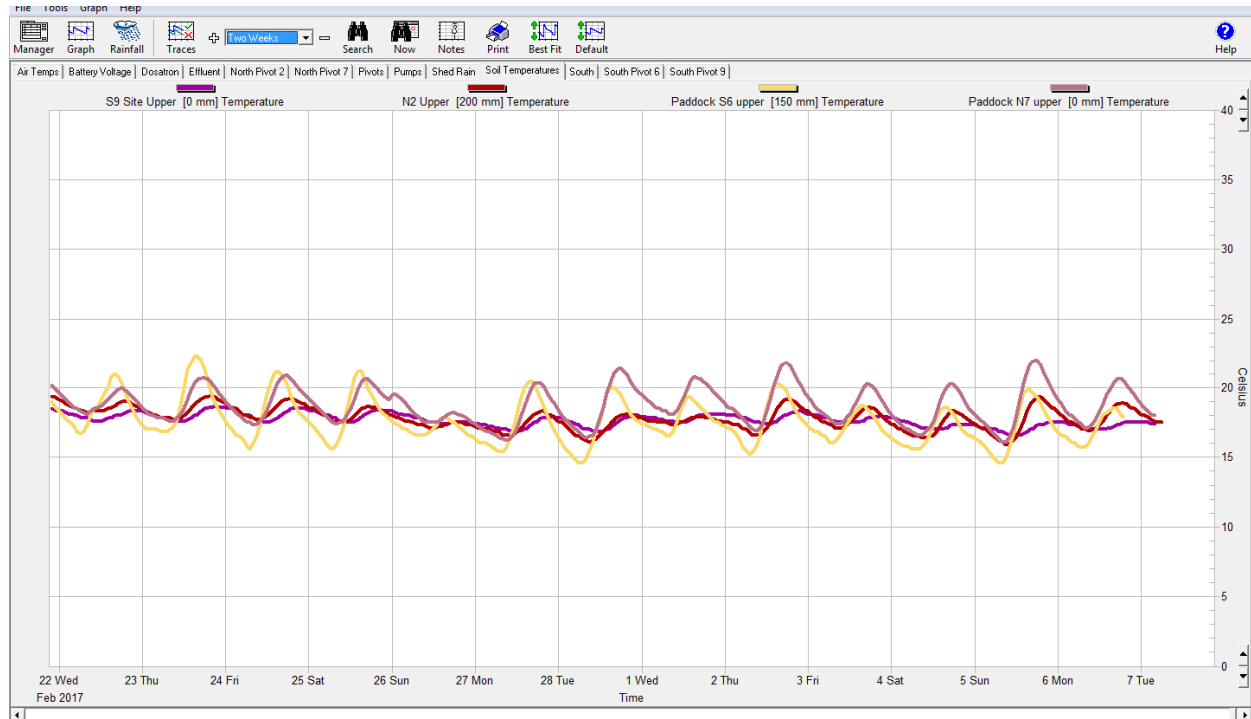
14. Replacement heifers:

- a. 9 weeks mating started for R2 2015 born heifers on 11<sup>th</sup> October 2016.
- b. A scan on the 19<sup>th</sup> 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**

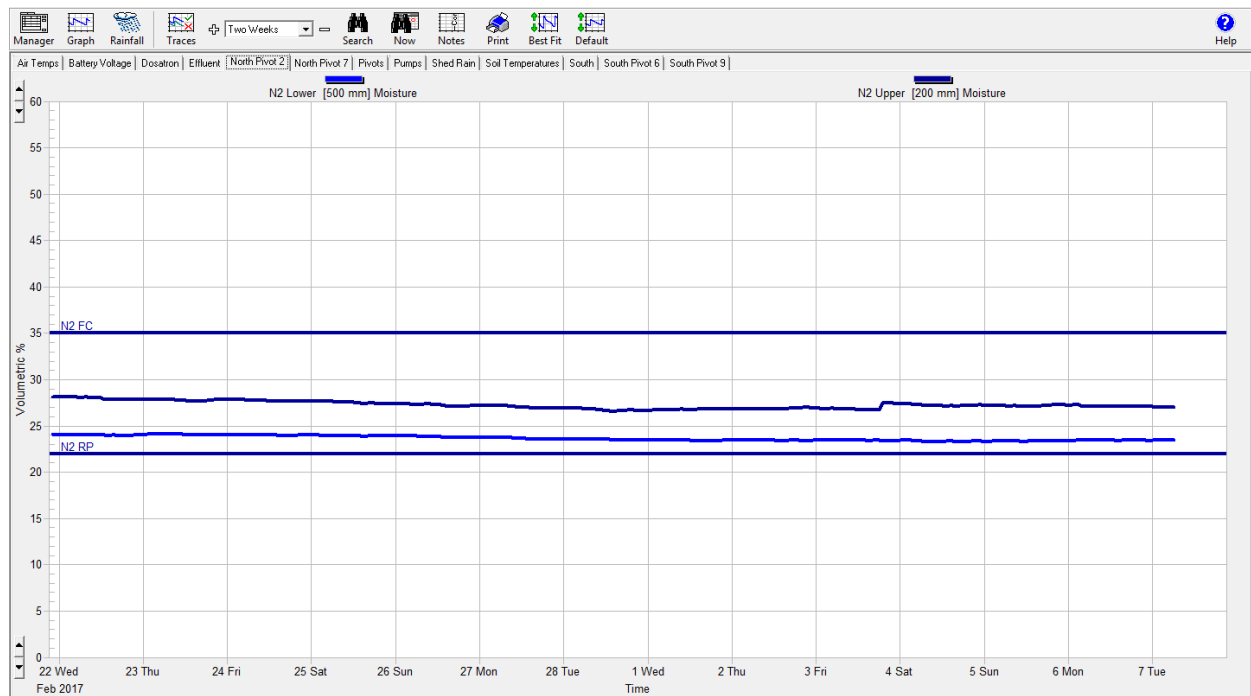
15. The average 9 am soil temperature for the past week was 16.9°C, 0.2°C lower than last week's (but higher than the 16°C at the same time last year).

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



- 16. The farm has had no rain over this past week (but rain is now falling today, Tuesday 7 March).
- 17. Irrigation occurred for 1 day on the north Block (It should have been more but north pivot is still having issues) and south block 4 days for this week. Soil moisture on north block has remained relatively stable this week, even with only limited irrigation.

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

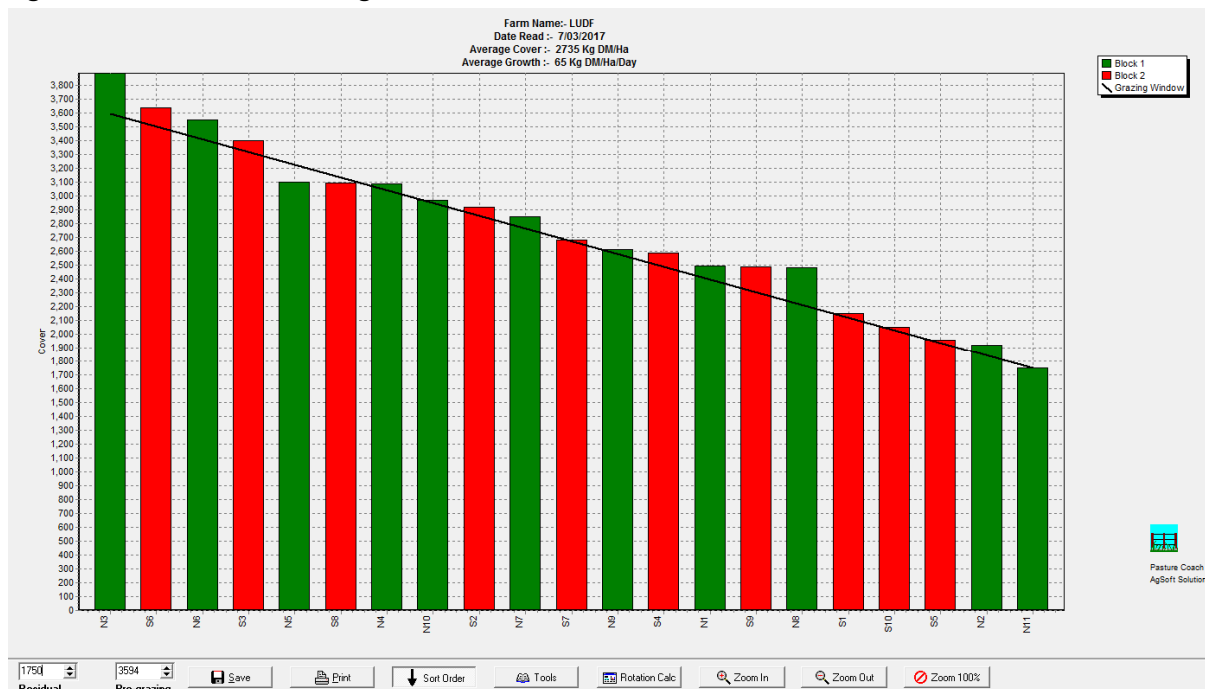


18. N Fertilizer: 46.68 ha have received nitrogen at a rate of 25 kgN/ha as urea, over the past week. Season to date, 152 kgN/ha has been applied on average across the 160 ha of the farm. This is in line with the target to apply up to 170kgN/ha and finish applying N around the end of March 2017.
19. The non-effluent block of the north block has received the 100 Kg/Ha of potassium behind the cows.

### Pasture and Feed Management

20. Cows have managed a 28.4 day round this week using a small amount of silage fed
21. The focus of offering a high daily intake of high quality pasture, while achieving a low and consistent residual continues so that high quality pasture is available again at the next round.
22. The consistent warm soil temperatures remain favourable to clover growth, with good levels of clover evident in most paddocks across the whole farm.
23. No mowing has occurred this week
24. Rising Plate Meter data collected in recent months had appeared to routinely overestimate pregrazing pasture cover, and possibly post grazing covers also. This results in an overestimate of growth rate and impacts apparent average pasture cover. Throughout this time, grazing residuals have generally been 'low and consistent' with little remaining feed available – even at the higher plate meter readings.
25. To counteract this data collected in February and now into March is the result of a more considered focus on technique, using an average of 2-3 plate meters, combined with some discussion on the apparent yield in each paddock. This seems to be working well, with the data collected over recent weeks better aligning with apparent cow intake.
26. Pasture quality from samples collected on 1<sup>st</sup> March showed an average of 14.3% DM (a little lower than the previous week).
  - a. Energy content similar to the previous week (11.8 MJME/kgDM)
  - b. Protein levels slightly lower than previous week (20 vs 22.8%)
  - c. NDF a little higher (42.7% vs 40%).

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



27. The demand line on the pasture wedge graph is calculated as follows:
  - a. 544 cows on 160 ha: 3.4 cows/ha.



- b. Planned minimum round length for the coming week is 30 days over 160 ha or 5.33 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 of 9774 kgDM/day from 5.33 ha /day requires 1834 kgDM/ha available.
  - f. Assuming the target residual is 1750kgDM/ha, target pregraze covers are 3584 kgDM/ha. (1750 kgDM/ha + 1834 kgDM/ha = 3,584 kgDM/ha pregraze cover).
  - g. Target APC would therefore be (3584+1750)/2 = 2667 kgDM/ha
28. The feed wedge above is showing a surplus of about 11.5 TDM total at this stage.
29. Average pasture cover this week is 79 kgDM/ha lower than last week, suggesting estimated pasture covers and growth rates are still slightly overstated. A decrease of 79kgDM/ha over the week is equivalent to supply of 11kgDM/ha/day .
30. It appears that the revision of plating technique has reduced much of the previous overestimation of pasture covers and subsequently growth rates, with the data more closely aligning with what cow observation indicates.

#### Feeding Management for the coming week:

- 31. The aim is to extend to a 30 day grazing round this week. To achieve this, the current feed wedge suggests no silage is required however we think we are still overestimating grass available so some silage will be used as required to achieve the 30 day round.
- 32. Grazing decisions will continue to be influenced by cow behaviour and pasture growing conditions, taking particular note of area grazed per day. Historically LUDF has experienced growth above demand during March so silage and round length will be manipulated with any surplus now pushed forward into a longer round.
- 33. The farm will continue to apply Nitrogen fertilizer following grazing, applying Urea at 25kgN/ha to the non-effluent areas of the farm.

LUDF Weekly report	7-Feb-17	14-Feb-17	21-Feb-17	28-Feb-17	7-Mar-17
Farm grazing ha (available to milkers)	160	160	160	160	160
Dry Cows on farm / East blk /Jackies/other	2/0/0	0/0/0	0/0/0	1/0/0/0	1/0/0/0
Culls (Includes culls put down & empties)	0	2	2	0	0
Culls total to date	20	22	22	22	22
Deaths (Includes cows put down)	0	0	0	0	0
Deaths total to date	14	14	14	14	14
Calved Cows available (Peak Number 560...)	546	544	544	543	543
Treatment / Sick mob total	0	2	1	0	3
Mastitis clinical treatment	0	2	0	0	3
Mastitis clinical YTD (tgt below 64 yr end)	55	57	57	57	60
Bulk milk SCC (tgt Avg below 150)	98	118	112	116	140
Lame new cases	0	3	6	3	6
Lame ytd	95	98	104	107	113
Lame days YTD (Tgt below 1000 yr end)	2763	2910	3064	3183	3365
Other/Colostrum				0	0
Milking twice a day into vat	527	521	521	526	540
Milking once a day into vat	17	21	22	17	26
Small herd	163	161	157	159	158
Main Herd	364	360	364	367	356
MS/cow/day (Actual kg / Cows into vat only)	1.86	1.82	1.83	1.74	1.74
Milk Protein/Fat ratio	0.82	0.80	0.81	0.79	0.79
Milk Fat %	5.19	5.26	5.32	5.35	5.43
Milk Protein %	4.25	4.24	4.32	4.24	4.31
MS/cow to date (total kgs / Peak Cows 560)	351	363	376	386	400

MS/ha/day (total kgs / ha used	6.31	6.18	6.18	5.90	5.87
Herd Average Cond'n Score			4.2		0.00
Monitor group LW kg WOW 281 early calvers	490	484	495	490	495
Soil Temp Avg Aquaflex	16.3	15.0	16.0	17.3	16.9
Growth Rate (kgDM/ha/day)	57	70	92	69	65
Plate meter height - ave half-cms	15.4	15.4	16.5		16.0
Ave Pasture Cover (x140 + 500)	2656	2652	2811	2814	2735
Surplus/[deficit] on feed wedge- tonnes	4	0	8	14	0
Pre Grazing cover (ave for week)	3581	3445	3386	3514	3636
Post Grazing cover (ave for week)	1800	1800	1800	1800	1800
Highest pregrazing cover	3888	3600	3500	3700	3800
Area grazed / day (ave for week)	6.47	6.61	5.87	5.67	5.62
Grazing Interval	25	24	27	28	28
Milkers Offered/grazed kg DM pasture	17.9	14.8	19.2	16.0	18.3
Estimated intake pasture MJME	208	166	230	192	216
Milkers offered kg DM Grass silage	0	0	4		1
Silage MJME/cow offered	0	0	11		11
Estimated intake Silage MJME	0	0	43		11
Estimated total intake MJME	208	166	273	192	227
Target total MJME Offered/eaten (includes 6% waste)			0		0
Pasture ME (pre grazing sample)		11.2	12	11.9	11.8
Pasture % Protein		18.6	24	22.8	20.0
Pasture % DM - Concern below 16%		14.7	13.9	15	14.3
Pasture % NDF Concern < 33		46	37.7	39.8	42.7
Mowed pre or post grazing YTD	267.7	272.3	277.2	277.2	277.2
Total area mowed YTD	300.9	305.4	310.4	310.4	310.4
Supplements fed to date kg per cow (555peak)	55.2	55.2	79.7	79.7	87.8
Supplements Made Kg DM / ha cumulative	361.47	361.47	361.47	361.47	361.47
Units N applied/ha and % of farm	25units /23.5%	25units /20.7%	25units /22.7%	25units/ 18.7%	25units/ 29.1%
Kgs N to Date (whole farm)	129	135	140	145	152
Rainfall (mm)	0	0.8	1.8	0	0
Aquaflex topsoil relative to fill point target 60 - 80%	50-70	50-70	50-70	50-70	50-60

Next farm walk: Tuesday 14<sup>th</sup> March 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.

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