

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 06-January 2015

LUDF – focus for 2014/15 Season: Nil-Infrastructure, low input, low N-loss, high profit.
Farm system comprises 3.5 cows/ha, 150kgN/ha, 300kgDM/cow imported supplement, plus winter most cows off farm. FWE of less than \$1.12million and Target production of 500kgMS/cow.

Critical issues for the short term

1. **Achieve target grazing residuals and cow intakes while managing average pasture cover, shape of the wedge and maintaining pasture quality (especially in paddocks at the top of the wedge).**
2. **Use back-fences on all herds whenever paddock grazing takes more than 36 hours.**
3. **Residual management remains critical .**

Key Numbers - week ending Tuesday 23rd December

Ave Past Cover	2638 kgDM/ha	Past Growth Rate	70 kgDM/ha/day
Ave Milk Production	1.89 kgMS/cow*	No Cows In Milk	554
Round length	17.2 days*	Supplement used	none
SCC	205,000	6-week submission rate	96.5%

(* Peak Cows)

*Includes first nip off of S-10

Herd Management

4. We are managing 3 milking herds,
 - a. The small milking herd with all the heifers + plus light condition cows (148 animals)
 - b. The main herd with mixed aged cows (395 animals).
 - c. 16 cows are on OAD (lame cows) and OAD cows are being run with the red mob (1 red).
5. Milk production is down from 1.93 last week to 1.89 kgMS/cow (peak cows).
6. BCS on the 10th December was 4.2 (herd average).
7. 1 new mastitis case.
8. 7 new lame cases

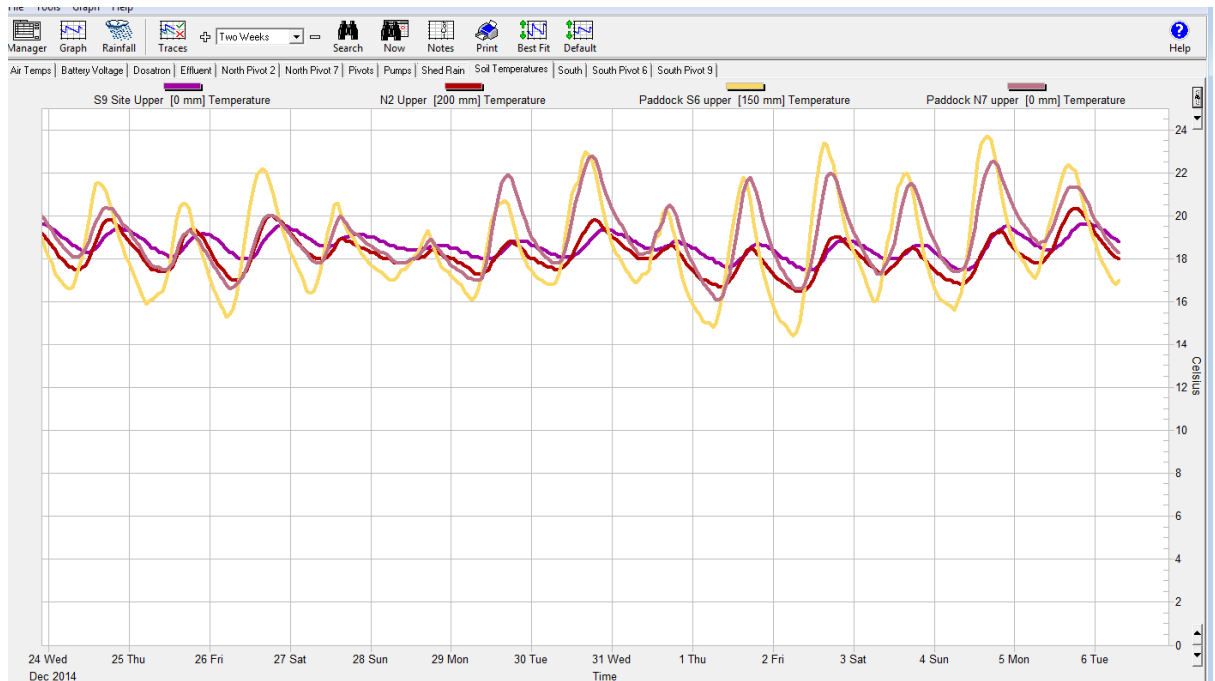
Mating

9. Mating started 25th October 2014 (6 weeks AI).
10. Bulls have gone out with the herd on the 6th December 2014 and were taken out yesterday 5th January. Pregnancy testing is booked in for 12th January 2015 for both the MA cows and the R2 heifers.
11. Mating of our 150 R2 heifers is now finished. Bulls were pulled out on Wednesday 17th December.

Growing Conditions

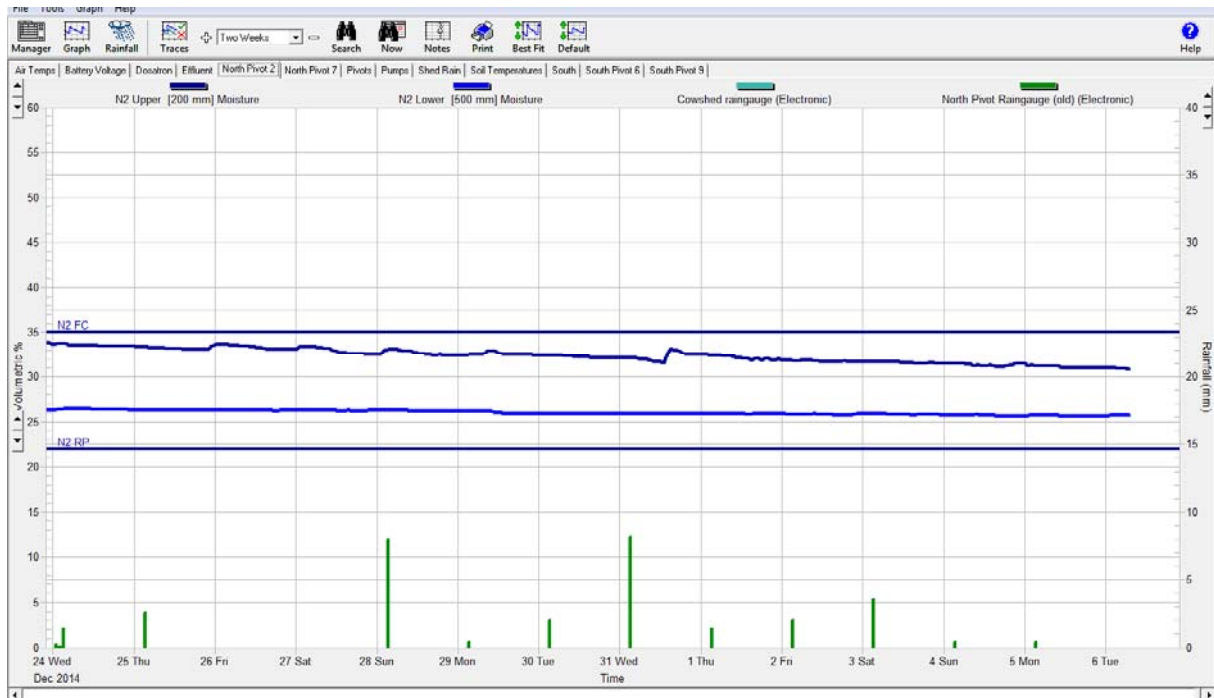
12. Soil Temperature: 9 am average soil temperature for the week was 17.7 degrees (0.2 degrees lower than last week).

Figure 1: Soil temperature history for the last 2 weeks



- 13. Rain fall: 3 ml for the week.
- 14. Irrigation: 7 days irrigation in North Block and 6 days in South Block.
- 15. Soil moisture levels are now struggling to hold on due to the hot weather we have had over the last 2 weeks.

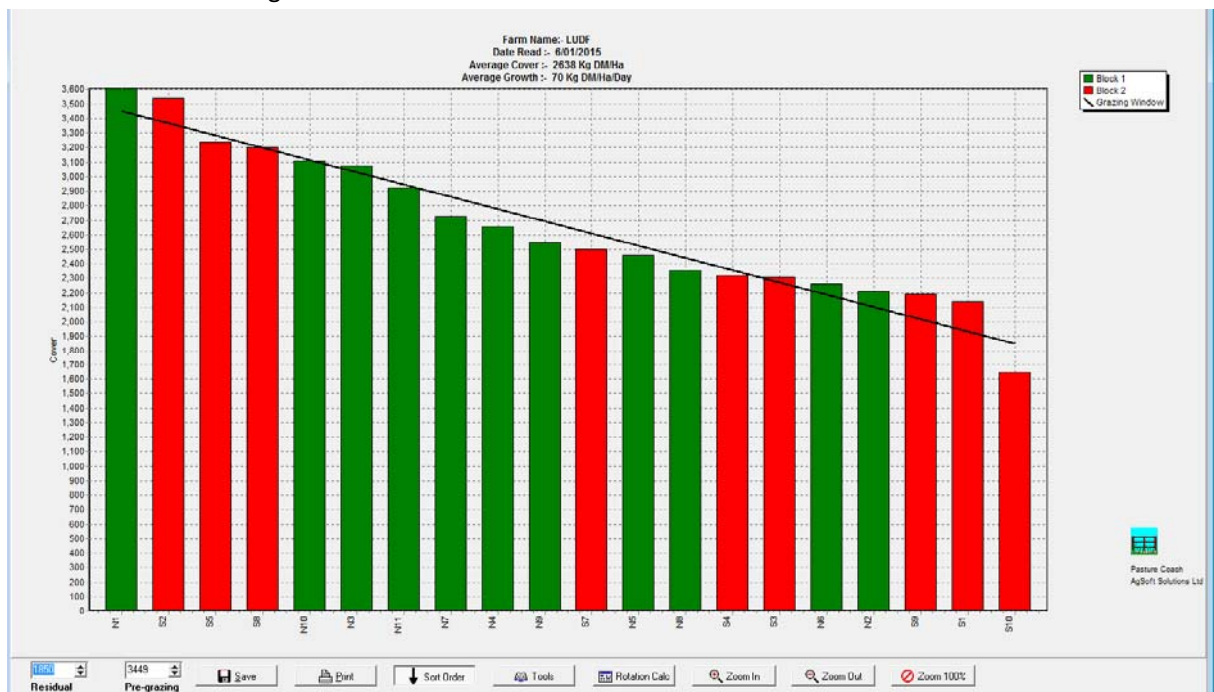
Figure 2: Soil moisture history for the 2 weeks



Pasture Management

16. Area grazed this week was 62.4 ha total, giving a 17.2 day round. This has been shorter because we have grazed S-10 for the first grazing which has just been a nip off to help promote faster tillering of the new grass
17. Our current stocking rate is 3.63 cows/ha
 - a. Paddock S10 (10ha) has now been included back in the round as it has now had its first grazing
 - b. Paddock S6 was sprayed Monday 8th Dec. and was sown with Shogun chicory plantain and clovers on Thursday 11th December 2014.
18. No silage has been fed over the last week.
19. There was no pre-graze mowing done this week.
20. We have made a decision to not apply any fert over the next month as we only have 55 Kg \N Ha left. We feel we need to apply this for February and March.
21. The feed wedge below continues to target dry matter intakes of 20kgDM/cow/day giving a demand of 72.6 kgDM/ha/day. This requires a pre-grazing target of 3449 kgDM/ha (554 cows eating 20 kgDM/day, a 22 day round and a post-grazing cover of 1850 kgDM/ha). Paddocks that appear to be well grazed visually are plating high due to stem in the base for this reason we have lifted our residual line on our feed wedge to give us the true reading of feed available per ha.

Figure 3: This week's feed wedge:



Feeding Management for the coming week

22. The feed wedge above indicates a feed deficit of about 200 Kg DM for the week. This reflects the recent decrease in pasture growth rates with hotter conditions over the last week.
23. Pasture growth is estimated at 70 kgDM/day, which is slightly lower than the 72.6kgDM/day demand.
24. Pasture quality: Paddocks seem mostly under control. The urine patches seem to be less noticeable than before (possibly due to mineralization of N happening with the high soil temperatures)
25. Due to all of the above this week's decisions are:
 - a. Hold to a 22 day rotation (6.5 ha/day) over our currently available 152.8 ha.
 - b. Both herds will be fully fed on grass.

c. Monitor residuals and growth during the week and respond as required.

26. Currently, higher cover paddocks are initially grazed by the small herd with the large herd allocated the rear portions of these paddocks to achieve the desired post-grazing targets over the whole area. This allows us to adequately feed young and lower BCS cows, as well as achieving post-grazing targets, but is modified a little as required from paddock to paddock, taking account also of the paddock attributes including location, quality, previous grazing residual etc.

Data sheet

LUDF Weekly report	9-Dec-14	16-Dec-14	23-Dec-14	30-Dec-14	6-Jan-15
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	0/0/0	0/0/0	0/0/0
Culls (Includes culls put down & empties)	1	1	0	0	1
Culls total to date	15	16	16	16	17
Deaths (Includes cows put down)	0	0	0	0	0
Deaths total to date	5	5	5	5	5
Calved Cows available (Peak Number 560)	556	555	555	555	557
Treatment / Sick mob total	1	4	2	2	1
Mastitis clinical treatment	1	3	2	2	1
Mastitis clinical YTD (tgt below 64 yr end)	36	39	41	43	44
Bulk milk SCC (tgt Avg below 150)	160	169	165	205	183
Lame new cases	3	2	4	3	7
Lame ytd	57	59	63	66	73
Lame days YTD (Tgt below 1000 yr end)	494	529	578	627	718
Other/Colostrum	0	0	0	0	0
Milking twice a day into vat	553	547	548	545	539
Milking once a day into vat	2	4	5	8	14
Small herd	151	150	150	150	148
Main Herd	402	397	397	395	390
MS/cow/day (Actual kg / Cows into vat only)	2.04	1.98	1.93	1.93	1.89
MS/cow to date (total kgs / Peak Cows	234	247	261	274	287
MS/ha/day (total kgs / ha used	7.08	6.81	6.68	6.68	6.53
Herd Average Cond'n Score	0.00	4.20	0.00	0.00	0.00
Monitor group LW kg WOW early MA calvers	481	482	487	487	489
Soil Temp Avg Aquaflex	14.3	13.9	16.6	17.9	17.7
Growth Rate (kgDM/ha/day)	92	66	106	105	70
Plate meter height - ave half-cms	15.0	13.9	15.2	15.3	15.3
Ave Pasture Cover (x140 + 500)	2604	2450	2623	2637	2638
Surplus/[deficit] on feed wedge- tonnes	9	0	0	0	0
Pre Grazing cover (ave for week)	3591	0	3292	3348	3341
Post Grazing cover (ave for week)	1650	1650	1700	1700	1700
Highest pregrazing cover	3684	0	3480	3500	3566
Area grazed / day (ave for week)	6.42	7.42	6.65	6.90	8.90
Grazing Interval	22	19	21	21	17
Milkers Offered/grazed kg DM pasture	20.0	20.0	20.0	0.0	0.0
Estimated intake pasture MJME	0	234	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	234	0	0	0
Target MJME Offered/eaten (includes 6% waste)	0	0	0	0	0
Pasture ME (pre grazing sample)	12.1	11.7		0.0	0.0
Pasture % Protein	17.6	17.5		0.0	0.0
Pasture % DM - Concern below 16%	16.7	12.6		0.0	0.0
Pasture % NDF Concern < 33	36.6	35.2		0.0	0.0
Mowed pre or post grazing YTD	109.2	132.4	132.4	138.7	138.7
Total area mowed YTD	116.5	139.7	139.7	145.9	145.9
Supplements fed to date kg per cow (630 peak)	95.6	95.6	120.6	120.6	120.6
Supplements Made Kg DM / ha cumulative	99.2	99.2	99.2	99.2	99.2
Units N applied/ha and % of farm	25units/15.8%	25units/27%	25units/22.8%	25units/16.9%	0
Kgs N to Date (whole farm)	79	85	89	95	95
Rainfall (mm)	4.2	7.2	3.6	0.6	3
Aquaflex topsoil relative to fill point target 60 - 80%	70-80	70-80	70-90	70-80	50-70

Farm walks occur every Tuesday morning. 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.