

Lincoln University Dairy Farm - Farm Walk notes

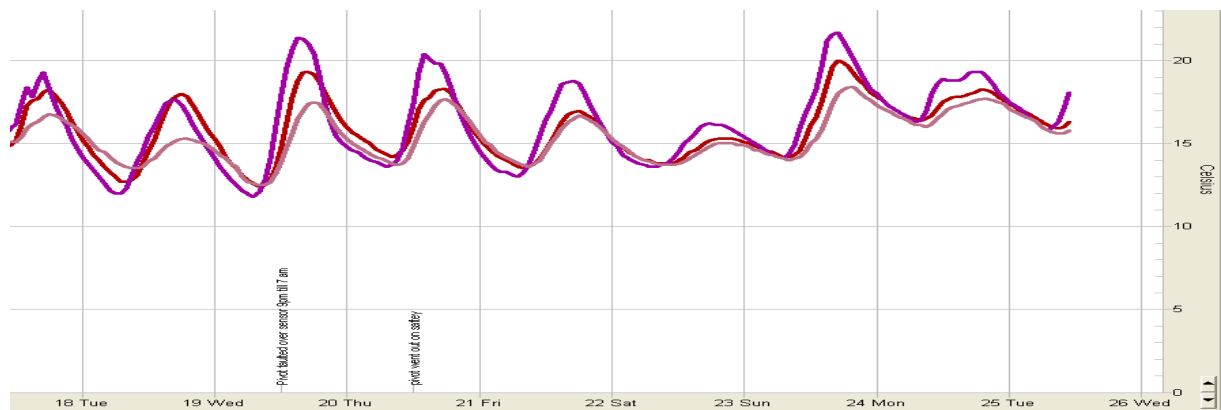
Tuesday, 25th November 2008

Critical issues for the short term

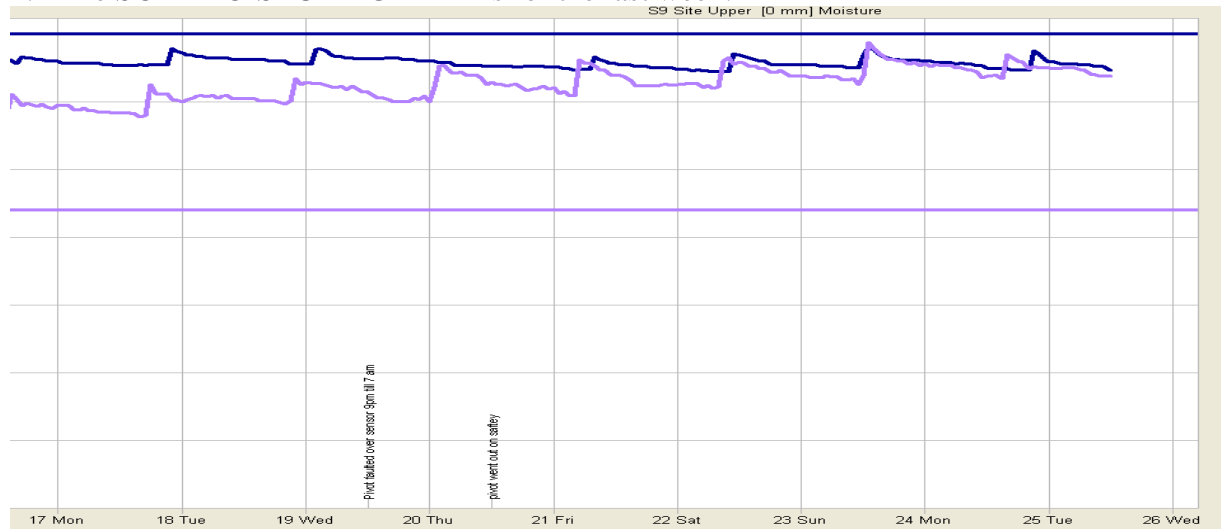
1. **Keep the rotation length to no faster than 19 days.**
2. **Identify grass surpluses on the runoffs and make into silage immediately.**

Summary of Key Factors affecting Grazing Management & Animal Performance

3. The SOIL TEMP graph below is for the last weeks. The 9am temperature has been below 15°C for all except the last two mornings when it has been 16°C. The lighter free draining soils have a bigger daily range of temperature, getting warmer in the day and colder at night, but their 9am temperature is almost the same as the heavy clay soils.



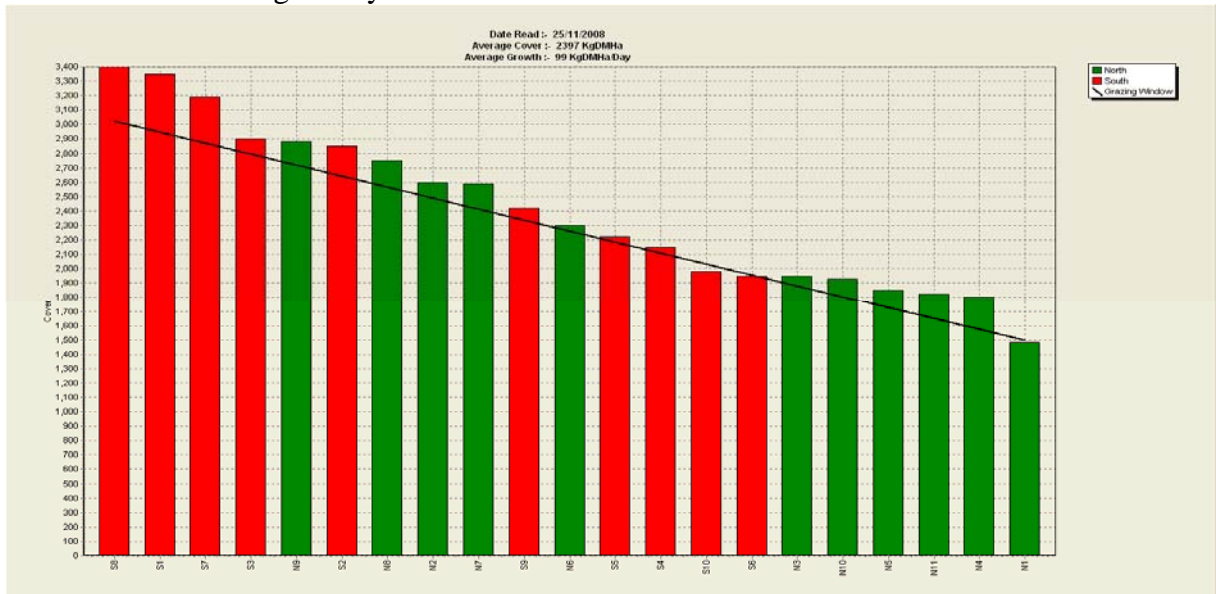
4. The SOIL MOISTURE GRAPH is for the last week.



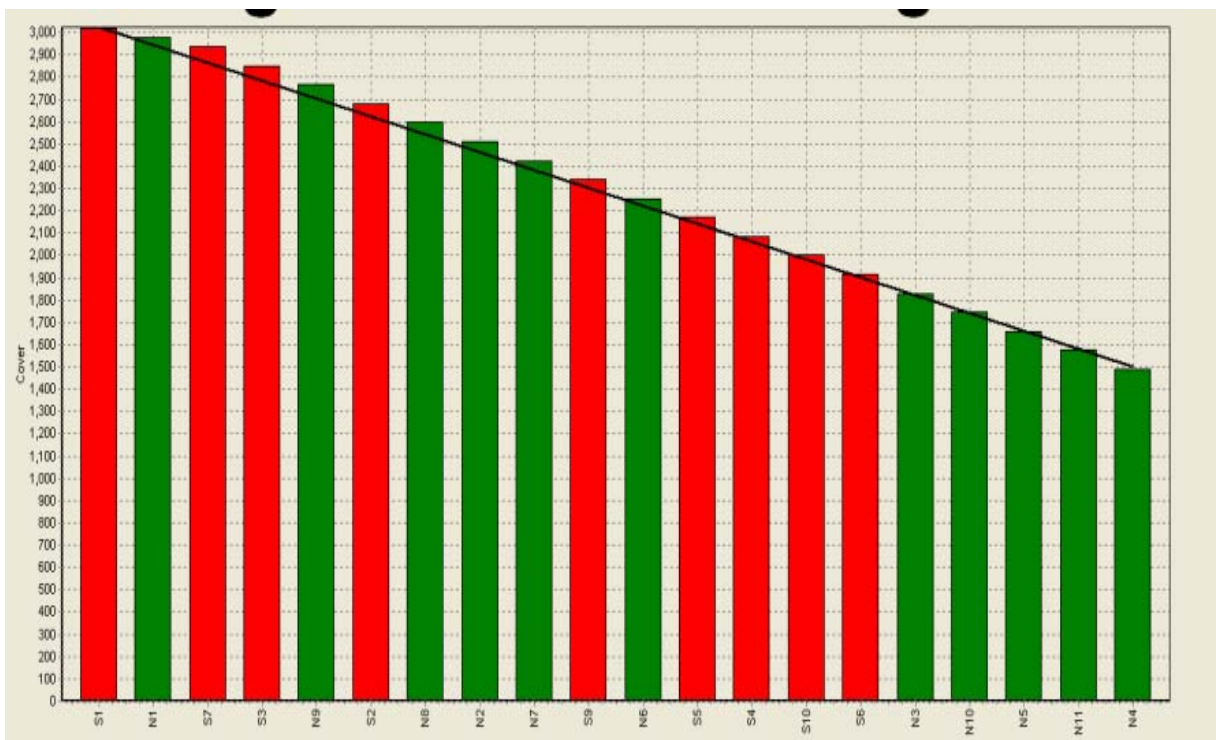
This week we have been able to hold moisture levels on the free draining North Block and lifting them on the heavier clays of the South Block. This also shows us that we are still exposed to any breakdown.

5. PASTURE GROWTH was 99 kg DM/ha (previous week 110).
6. Average pasture cover has increased to 2397 kg DM/ha (last week 2398 kg DM/ha).

7. Last week the rotation was 17.6 days. The cows were on 1/19th of the farm a day and then we also cut one paddock for silage. The aim is to lengthen this back up 20 days.
8. The Pasture Wedge today.



9. The wedge target line reflects the pre-grazing target for a 20 day rotation, feeding an average of 19 kg DM/cow at a stocking rate of 4.3 $(4.3 \times 21 \times 19) + 1480 = 3196$.
10. We have a surplus. The next wedge shows our position in 7 days if we remove one and a half paddocks for silage and assuming a growth rate of 85.



11. The target line is now based on a 20 day round.
12. The weather for the coming week is again likely to be mild with one cold front coming through late today. This should not affect soil temperatures badly and any rain will be welcome.

13. We now have 679 cows going in the vat. Production /ha has dropped from 7.74 kg MS/ha/day to 7.3 kg MS/ha/day. Per cow production has also dropped from 1.85 kg MS/cow/day to 1.72 kg MS/cow/day. At the moment we can not explain this drop. Pasture quality looks excellent but we will check this with pasture samples.
14. Mating has been running for 27 days. 656 cows have had their first insemination and an additional 14 CIDR cows will be inseminated tomorrow. The 4 week submission target of 98% means we need to submit 668. We will achieve this. All the cows who have had CIDR's have had the CIDR re-inserted.
15. We will do a first pregnancy scan within two week to work out our conception rate.
16. The average Somatic cell count has risen again and the range is now from 184,000 to 217,000.

The next WEEKLY farm walk is on Tuesday **2nd December 2008 at 9.00am.**

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. Phone SIDDC – 03 325 3629

Management Group

Peter Hancox (Farm Manager), George Reveley (for SIDDC), and Adrian van Bysterveldt DairyNZ).

Lincoln University Dairy Farm - Farm Walk notes

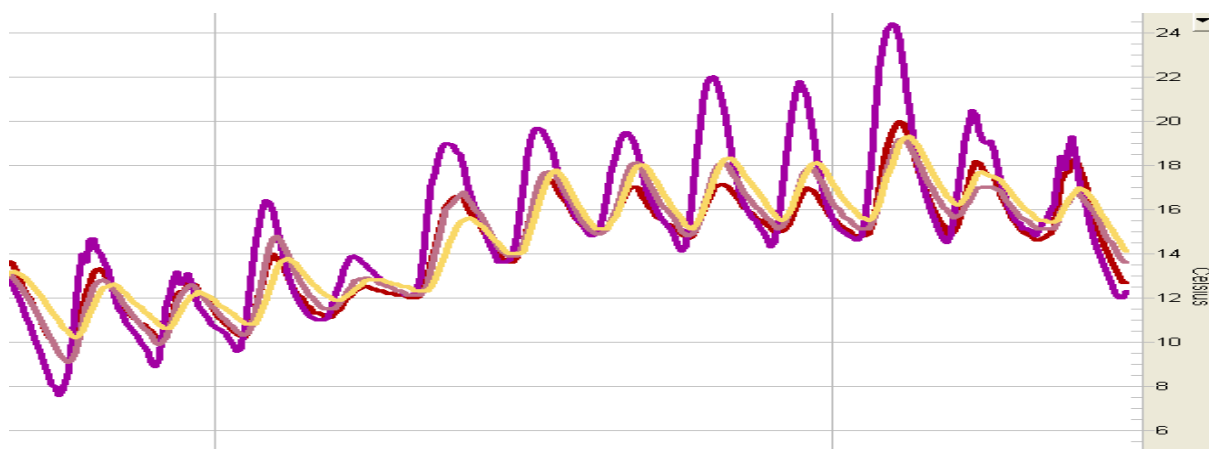
Tuesday, 18th November 2008

Critical issues for the short term

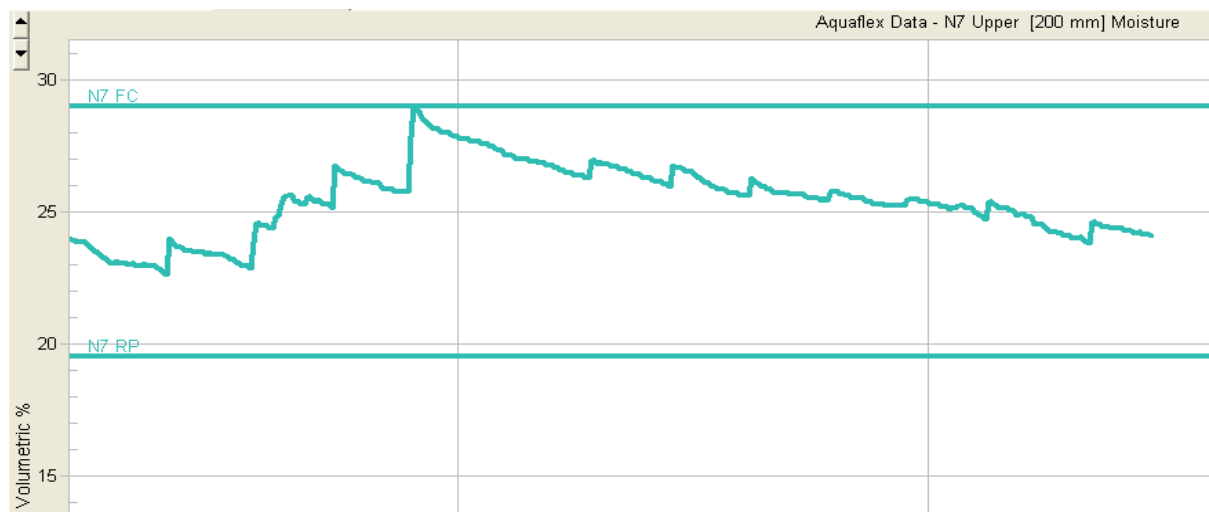
1. **Keep the rotation length to no faster than 19 days.**
2. **Identify grass surpluses on the runoffs and make into silage immediately.**

Summary of Key Factors affecting Grazing Management & Animal Performance

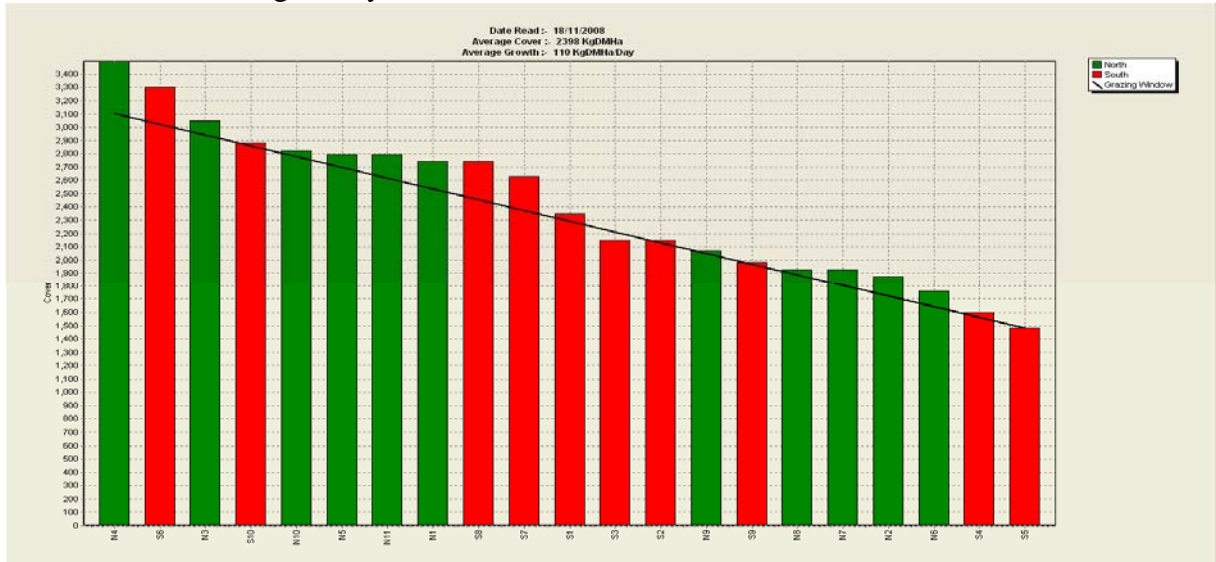
3. The SOIL TEMP graph below is for the last two weeks. The 9am temperature has been close to 15 °C for all except this morning. The lighter free draining soils have a bigger daily range of temperature getting warmer in the day and colder at night but their 9am temperature is almost the same as the heavy clay soils.



4. The SOIL MOISTURE GRAPH is for the last two weeks. In the first week we had a combination of irrigation and several small rain events, with a 15mm one near the end of the week which lifted the levels up to Field Capacity. After that we missed one round of irrigation and then the next 7 little peaks are each round of irrigation. Despite irrigating as much as we can the graph shows that we have gone from Field Capacity to more than half way to Stress Point. We will need cooler conditions and rain on top of irrigation to get us back closer to our preferred position which is about 10 – 15 mm below Field Capacity.



5. PASTURE GROWTH was 110 kg DM/ha (previous week 71).
6. Average pasture cover has increased to 2398 kg DM/ha (last week 2172 kg DM/ha).
7. Last week the rotation was lengthened from 19 days to 21 days just by the cows finding more grass in the paddocks and taking longer to get to target residual. No silage was fed.
8. The Pasture Wedge today.

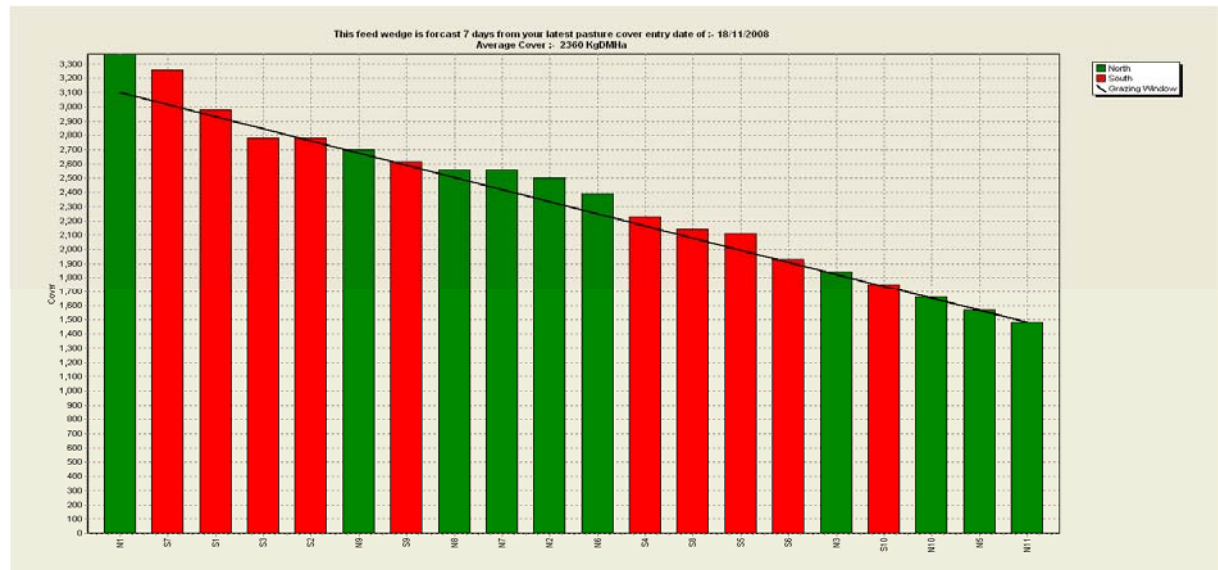


9. The wedge target line reflects the pre-grazing target for a 21 day rotation, feeding an average of 19 kg DM/cow at a stocking rate of 4.3 ($4.3 \times 21 \times 19 + 1480 = 3196$).
10. We have a surplus. The next wedge shows our position tomorrow if we remove our longest paddock for silage (one additional paddock will also have been grazed).



11. The target line is now based on a smaller area of 156 ha (silage paddock removed). We will have to go to a 19 day round for the next few days but there is a further surplus in a few days time which will be able to lengthen out to a 21 day round again.

12. This final wedge below is our position in a weeks time with the silage paddock back in the round and a growth rate of 90 a day. The target line is again based on a 21 day round.



This suggests that we will again be in an immediate surplus with another in about a week time.

13. The weather for the coming week is again likely to be mild with frequent small fronts that are not going to reduce soil temperatures much. November growth rate on average is over 90.
14. We have now completed our third round of N and will continue with a 4th round at 25 kg N/ha. This will take us up to 130 kg N/ha by the end of November. Our protocol is to cease N applications once soil temperatures are reliably at 16 °C or higher.
15. We now have 669 cows going in the vat. Production /ha has dropped from 8.13 kg MS/ha/day to 7.74 kg MS/ha/day, probably due to several days of hot weather. Per cow production has also dropped from 1.96 kg MS/cow/day to 1.85 kg MS/cow/day.
16. Mating has be running for 20 days. 631 cows of the 680 have been mated to date. This includes 128 cows that have had a CIDR treatment. A further 14 cows are currently being treated with a CIDR. Some are late cows and the others are cows which had pre-mating heats, were then treated with prostaglandin, but still did not cycle. We have already achieved a 93% submission rate in 20 days and our target is to have 98% (or better) submission rate by the end of week 4.
17. The average Somatic cell count has risen again and the range is now from 190,000 to 248,000.

The next WEEKLY farm walk is on Tuesday **25th November 2008 at 9.00am. 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. Phone SIDDC – 03 325 3629**

Management Group

Peter Hancox (Farm Manager), George Reveley (for SIDDC), and Adrian van Bysterveldt DairyNZ).

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 11th November 2008

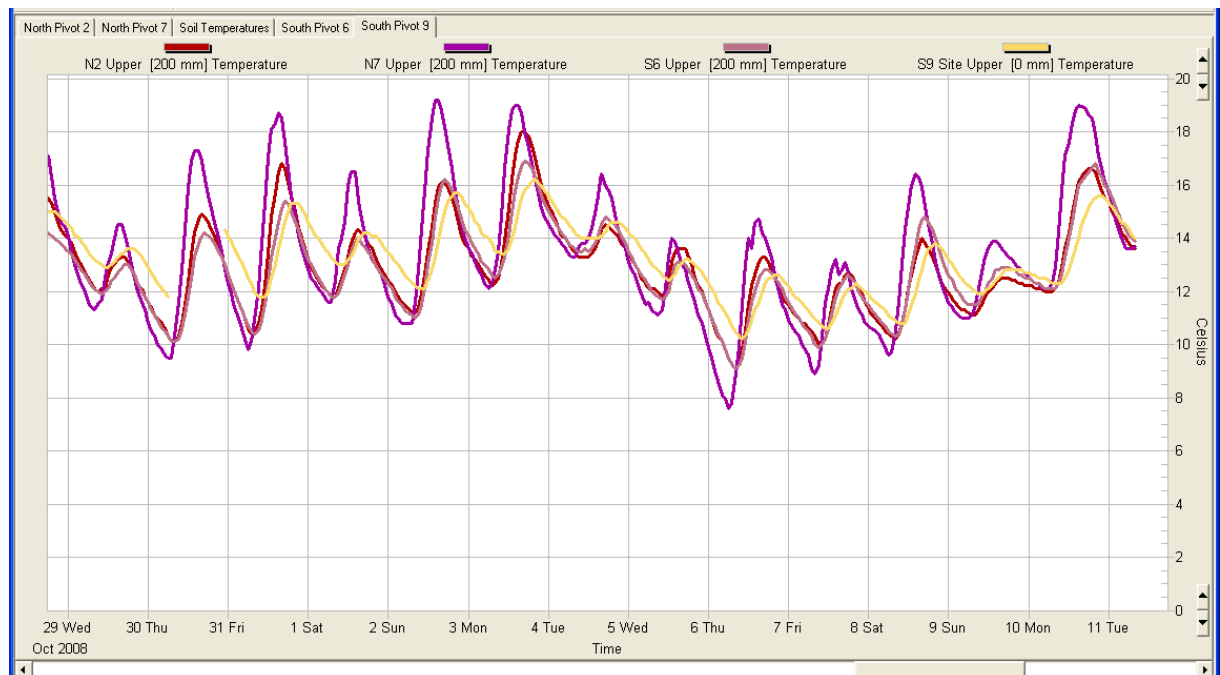
Critical issues for the short term

1. **Maintain water supply mag chloride.**
2. **Keep the rotation length to no faster than 19 days.**
3. **Identify grass surpluses on the runoffs and make into silage immediately.**

Summary of Key Factors affecting Grazing Management & Animal Performance

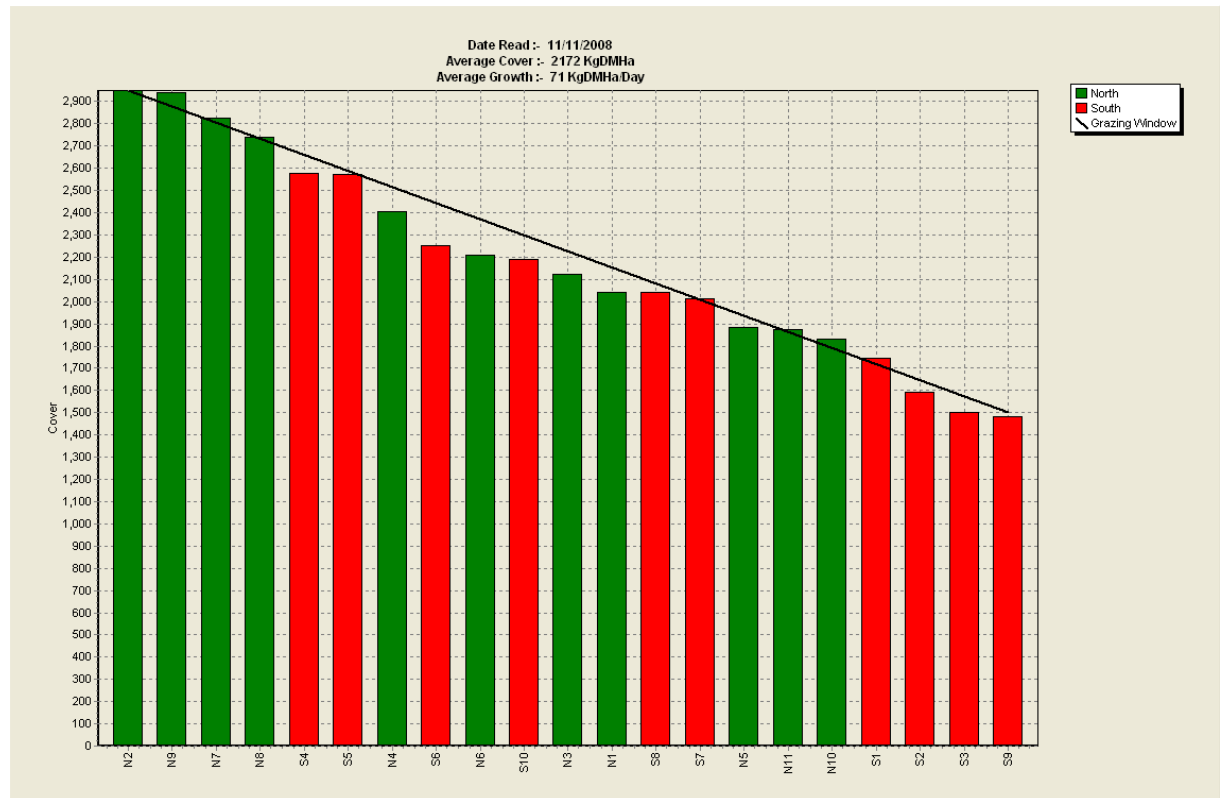
4. SOIL TEMP at 9am has been even more variable this week than the previous week, (between 8.5°C and 15 °C) and with a lower average about 10.5 °C. (11.3 previous week) but climbing rapidly as the week finished.

The week was notable for very cold showers including hail and some snow flakes along with a very cold frost in the early part of the week.



5. PASTURE GROWTH was 71 kg DM/ha (previous week 66).
6. Average pasture cover has decreased to 2172 kg DM/ha (last week 2188 kg DM/ha).
7. Last week the rotation length was held at 20 days with silage feeding being required on 4 days. 30 bales of baleage, 7.8t DM which was 2.9kg DM/cow for the 4 days.

8. The Pasture Wedge today.



9. The wedge now has a target line that reflects the pre-grazing target for a 19 day rotation, feeding an average of 18.5 kg DM/cow at a stocking rate of 4.3
 $(4.3 \times 19 \times 18.5) + 1480 = 2991$.
10. The silage feeding and holding the round length to 20 days has generated a wedge very similar to last week. It would appear that the farm will grow enough feed to support a 19 – 20 day rotation without silage this week.
11. Pasture quality is very good. Ryegrass is currently very actively generating seed head but very little is evident in the pastures ahead of the cows.
12. The weather for the coming week is likely to be mild and settled quite unlike the week we have just had so we are confident that growth rates will return to average growth rates for November. November growth rate on average is over 90 a day for us so as long as we can hold the rotation length at 19 -20 days we will eventually get a week of growth rates that will re-establish the 21 day rotation. Perhaps it will be this week
13. Our decision for this week is to hold the rotation length at 19 - 20 days. In the unlikely event that growth rates drop below demand then we will use silage to hold this round as we have in the week just finished. Equally growth rates could be above demand and so we will watch residuals closely and lengthen the round as opportunity arises.
14. We have now completed our third round of N and will continue with a 4th round at 25 kg N/ha. This will take us up to 130 kg N/ha by the end of November.

15. We now have 665 cows going in the vat. Production /ha continues to rise and is now 8.13 kg MS/ha/day. Per cow production 1.96 kg MS/cow/day.
16. Mating has been running for 13 days. 455 cows of the 680 have been mated to date. This includes 128 cows that have had a CIDR treatment. A further 7 cows were treated with prostaglandin when they had reached 28 days since an observed heat. These cows all cycled and were mated.
17. It is encouraging but not surprising that the cows that had cycled prior to mating are being mated at a 95% submission rate.
18. There are about 12 cows that have had observed cycles 27 – 35 days ago and have not cycled. These cows will be treated with prostaglandin this week. There are other cows that have been calved more than 35 days and have not cycled, these will be treated with CIDR's later in the week.
19. The average Somatic cell count has lowered and the range is now from 134,000 to 189,000. We found 1 new clinical case of mastitis this week. This level of mastitis and Somatic cells is at last into a more normal position. Too soon to celebrate but all the work done finding cows with infection and the detailed work on the milking machine appear to have paid off.
20. November/ December are our period of growth rates most frequently above demand. This is when we do our re-grassing and planning for this is well underway. The paddock to re-grass has been chosen as has the grass mix. The additional drainage and contouring work has also been proposed and are being finalised.
21. The continuing high price for standing grass is creating a lot of management discussion. We continue to be able to find suitable grazing for replacements at a lower cost and so are maximising the amount of silage we are making off our own runoffs. At this stage we are still on track to accumulate our target of 1.2t to 1.5t of additional silage /ha to feed to the cows to maximise cow milking days in the autumn.
22. We are using the soil moisture deficit information from our 4 Aquaflex sites round the farm to schedule our irrigation. Our aim in the late spring and summer, is to keep soil moisture levels just far enough below Field Capacity, to allow for almost all rain events without exceeding Field Capacity and having leaching occurring. This allows us to survive extended periods of evapo-transpiration rates that are higher than we can replace by irrigation on a daily basis and also gives us some time if a breakdown occurs. We make our energy and water savings by stopping irrigating earlier in the autumn and allowing soil moisture deficits to approach Stress Point just before the autumn rains.

The next WEEKLY farm walk is on Tuesday **18th November 2008 at 9.00am. 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. Phone SIDDC – 03 325 3629**

Management Group

Peter Hancox (Farm Manager), George Reveley (for SIDDC), and Adrian van Bysterveldt (DairyNZ).

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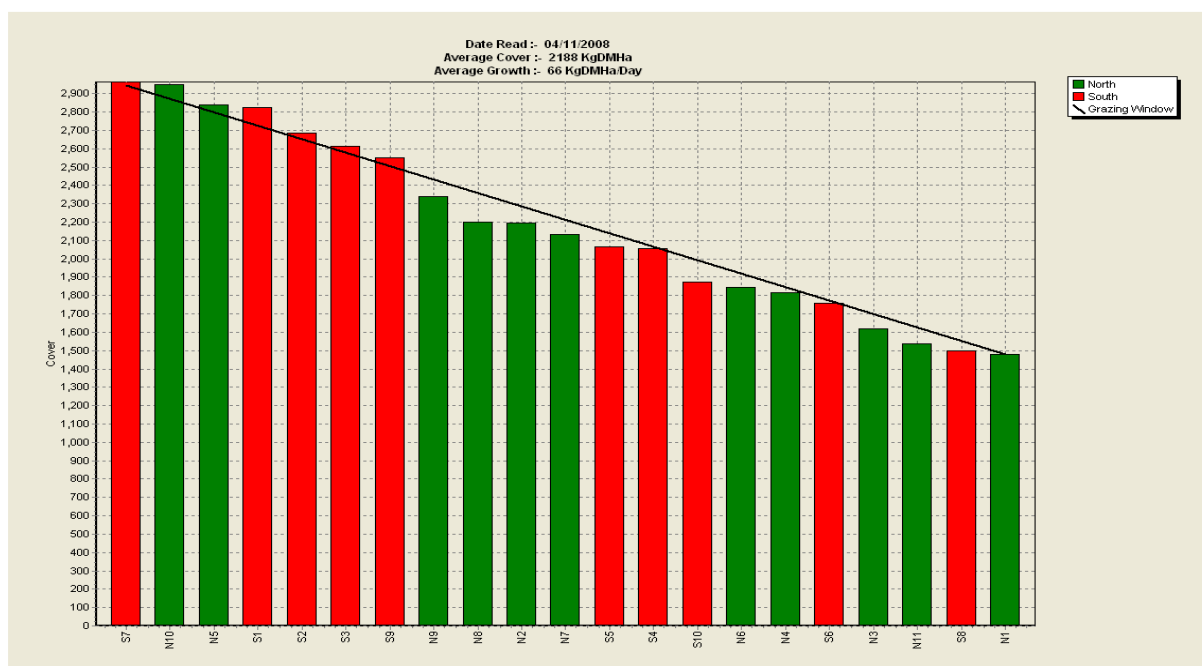
Tuesday, 4th November 2008

Critical issues for the short term

1. **Maintain water supply mag chloride.**
2. **Keep the rotation length to no faster than 19 days.**

Summary of Key Factors affecting Grazing Management & Animal Performance

3. SOIL TEMP at 9am has been more variable this week than the previous week, (between 9.0°C and 15 °C) but with a slightly lower average about 11.3 °C, (12 previous week).
4. PASTURE GROWTH was 66 kg DM/ha (previous week 93).
5. Average pasture cover has decreased to 2188 kg DM/ha (last week 2320 kg DM/ha).
6. Last week the rotation length was held at 18.5 days without feeding silage.
7. The Pasture Wedge today.



8. The wedge now has a target line that reflects the pre-grazing target for a 19 day rotation, feeding an average of 18kg DM/cow at a stocking rate of 4.3 (4.3x21x18)+1480=2924). This is a slight increase in allocation and we want to continue to increase this to about 19 kg DM/cow.
9. The lower average farm cover and wedge shape has changed enough for us to need to go back to a 19 day rotation without continuing to feed silage. The defining thing is how long it takes for the cows to get to the target residual of “7 clicks” or 1480 kg DM/ha.

10. The weather for the coming week is confused and we are not confident that there will be higher growth rates this week which will return us to a 21 days rotation this week. November growth rate on average is over 90 a day for us so as long as we can hold the rotation length at 19 days we will eventually get a week of growth rates that will re-establish the 21 day rotation.
11. Our decision for this week is to hold the rotation length at 19 days. If growth rates continue below demand then we will use silage to hold this round. Equally growth rates could be above demand and so we will watch residuals closely and lengthen the round.
12. We have now completed our third round of N and will continue with a 4th round at 25 kg N/ha. This will take us up to 130 kg N/ha by the end of November.
13. We now have 658 cows going in the vat. Production /ha continues to rise and is now 8.03 kg MS/ha/day. Per cow production 1.96 kg MS/cow/day.
14. Pre mating anoestrus cows were mated on day one of mating. There were 84 in this group (12% of the herd) and 21 of the 84 animals were 2yr olds. A further group of 44 anoestrus cows (later calving and cows with an earlier observed heat but had not cycled again) have since been treated and will be mated on day 10 of mating.
15. In addition to anoestrus cows mated we have had an average of 29.8 normally cycling cows per day for the first 6 days of AB. To reach a target of 90% mated in 3 weeks.
16. There are about 20 cows that have had observed cycles 27 – 35 days ago and have not cycled. These cows will be treated with prostaglandin this week. There are other cows that have been calved more than 35 days and have not cycled, these will be treated with CIDR's later in the week.
17. The average Somatic cell count has lowered and the range is from 198,000 to 229,000. We found 11 new clinical cases of mastitis this week via the quarter stripping. This level of mastitis is much higher than the farm has experienced in recent years. The milking machine function has been rechecked and the pulsators have been fully serviced. We have sent milk samples away for bacteriological analysis.

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