

# Lincoln University Dairy Farm - Farm Walk notes

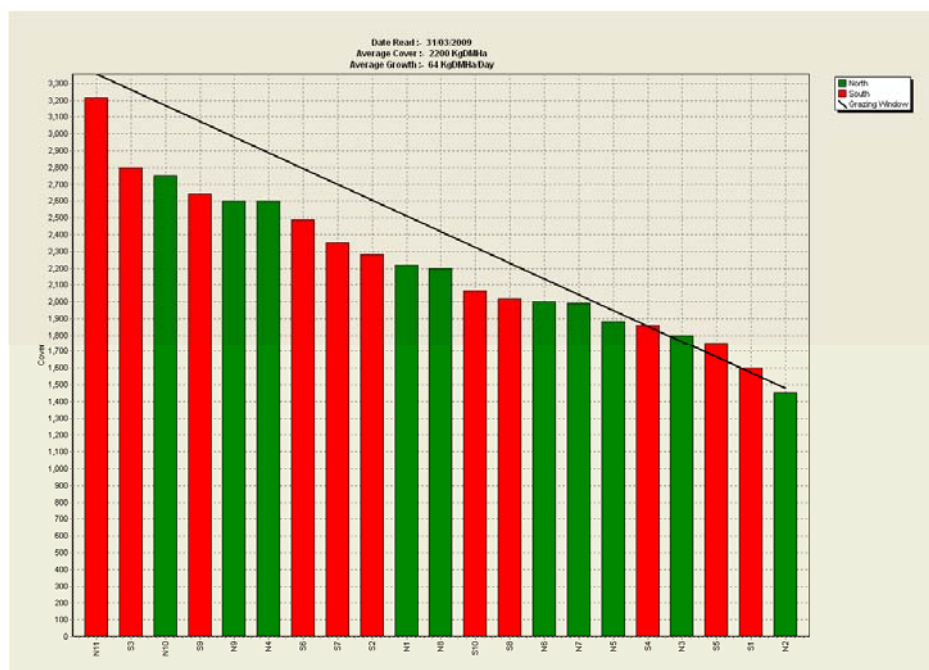
Tuesday, 31<sup>st</sup> March 2009

## Critical issues for the short term

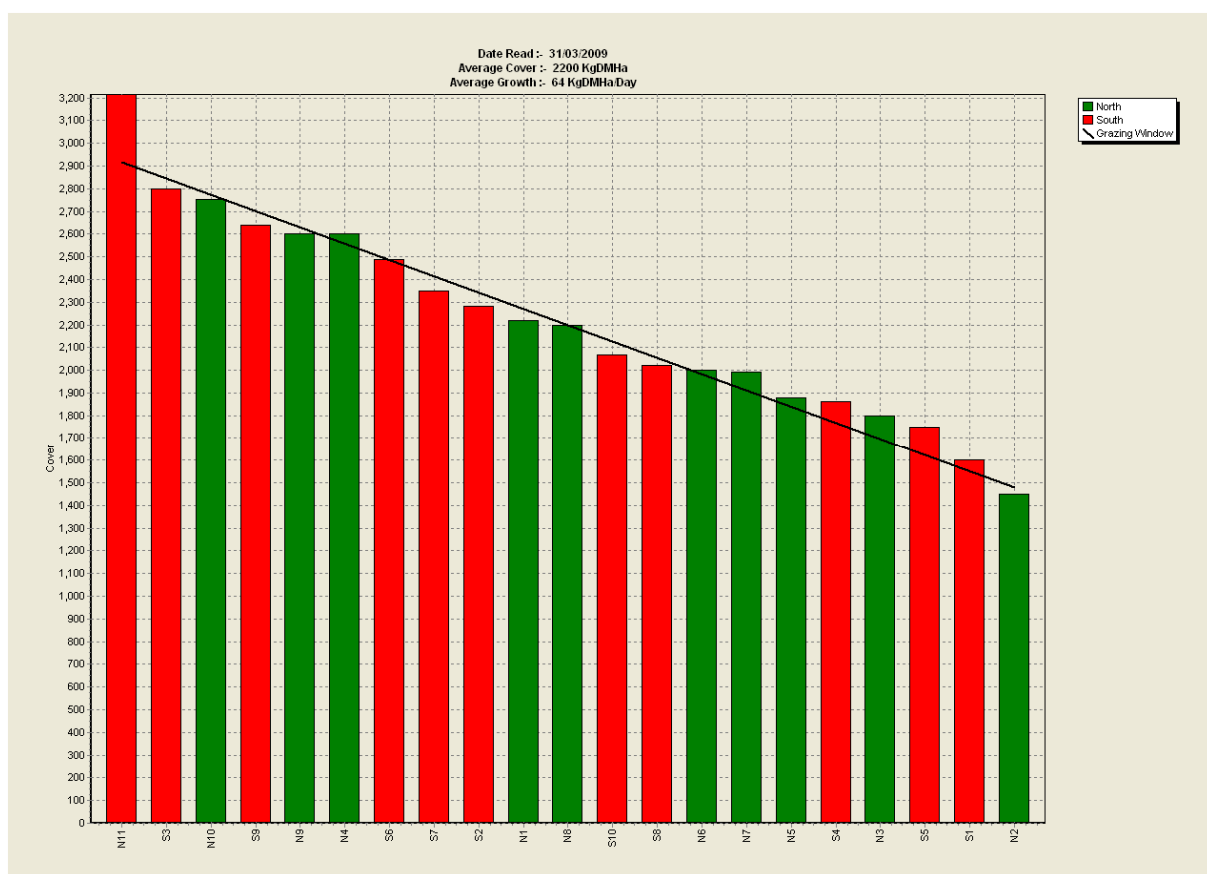
1. **Maintain the 30 days round length**
2. **Maintain grazing residuals to 7 “clicks”**
3. **Continue monitoring cow condition to achieve the targets at calving**

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

4. Soil Temperatures at 9 am have been quite steady at 13 degrees.
5. SOIL MOISTURE has dropped quite significantly. We were holding off from irrigating because rain had been forecasted but it did not happen. We started irrigating this morning. Now that we are in the autumn evapo-transpiration rates have dropped and persistent high rates are not likely to occur. Our plan is to now allow soil moisture levels to drop lower than the target we have been running at through most of the summer. This is to allow more space for autumn rain.
6. PASTURE GROWTH was 64 kg DM/ha (previous week 42 kg DM/ha).
7. Average pasture cover has increased to 2200 kg DM/ha from 2150 kg DM/ha last week. Pasture quality test done on the 18<sup>th</sup> of March showed that the Dry Matter percentage increased to 15.7 % from 12.7 %. The MJME went from 11.6 MJME to 12.2MJME.
8. Last week the overall rotation length was 30 days on 159.1 ha. We achieved this round length by feeding 25.1 Tonne DM of silage which represented 6.14 kg DM/ cow/day. We will hold this round length for another week and if growth rates increase we will keep the silage in the system and slow the round length.
9. Average cows milked last week was 598. 46 cull cows, of which 13 were low producing young empty cows, have been sold. Cows to milk this week are 585 cows.
10. The Feed Wedge Today



11. The target line in the wedge below reflects the pre-grazing target for a 30 day rotation, feeding an average of 17 kg DM/cow at a stocking rate of 3.68 cows/ha.  $(3.68 \times 30 \times 17) + 1480 = 3,356$  kg DM/ha. As last week there is quite a large gap between the line and the feed available.
12. We want to stay on a round length above 30 day otherwise the feed deficit will become too big and difficult to achieve the Average Pasture Cover at Drying off. We will try to push the round length to 35 days if possible. We do not want to feed any extra silage to slow the round but if we get a good growth rate we may keep the silage in the system and slow the round to 35 days.
13. To achieve a round length of 30 days and achieve the intake of 17 kg DM/cow we need to feed 4 kg silage DM/cow/day keeping the same number of cows for the week. The feed wedge below shows the pre-grazing target for a 30 day rotation, feeding an average of 13 kg DM/cow (pasture) at a stocking rate of 3.68 cows/ha.  $(3.68 \times 30 \times 13) + 1480 = 2,915$  kg DM/ha.



14. We have done a feed budget and we have a set of Average Pasture cover targets that we are trying to achieve. The decisions we make from now on will depend on how we are tracking to achieve these targets.
15. We are continuing a round of Urea application with 40 kg N/ha to capture the potential of the current autumn period. In previous years the next 2-3 weeks have seen very strong pasture growth.
16. From next week we will be looking at drying off cows that are early calvers and below target condition score. These cows will normally be fed off farm and managed by us.

On average the herd lost 9 kg LW over the last week, and some of last week live weight gain was gut fill from silage.

17. Production /ha is 5.47 kg MS/ha/day. Per cow production increased to 1.46 kg MS/cow/day last week to 1.38 kg MS/cow/day.
18. The Somatic Cell count ranged from 178-206. There were 2 cows with fresh clinical mastitis treated this week.
19. The number of lame cows was 4 this week.
20. This is also the time of the year when we are talking to our winter grazing suppliers to confirm what areas of grass and crop are available and to check on the progress of any crops.
21. The eco-n for the autumn has been ordered and will begin to be applied from Mid April.

The next WEEKLY farm walk is on Tuesday 7<sup>th</sup> April 2009 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), Neil Jones (Herd Manager), Virginia Serra (DairyNZ), George Reveley (for SIDDC).

# Lincoln University Dairy Farm - Farm Walk notes

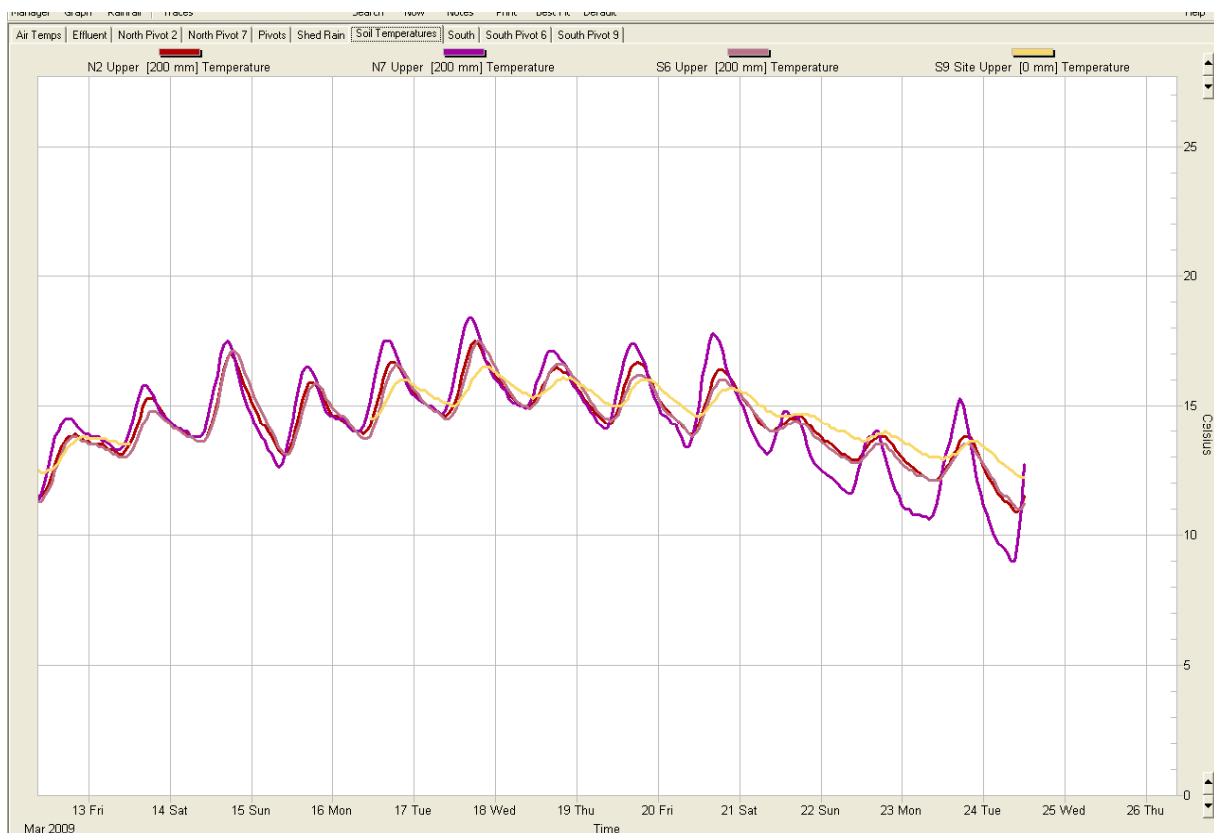
Tuesday, 25<sup>th</sup> March 2009

## Critical issues for the short term

1. **Keep lengthening the round to achieve 30 days by the end of March.**
2. **Maintain grazing residuals to 7 “clicks”.**
3. **Continue monitoring cow condition to achieve the target of cow condition at calving.**

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

4. Soil Temperatures at 9 am have dropped to 9 degrees yesterday. The range for the first days of the week was between 11°C and 15°C at 9am. The average for the week has been about 12°C.

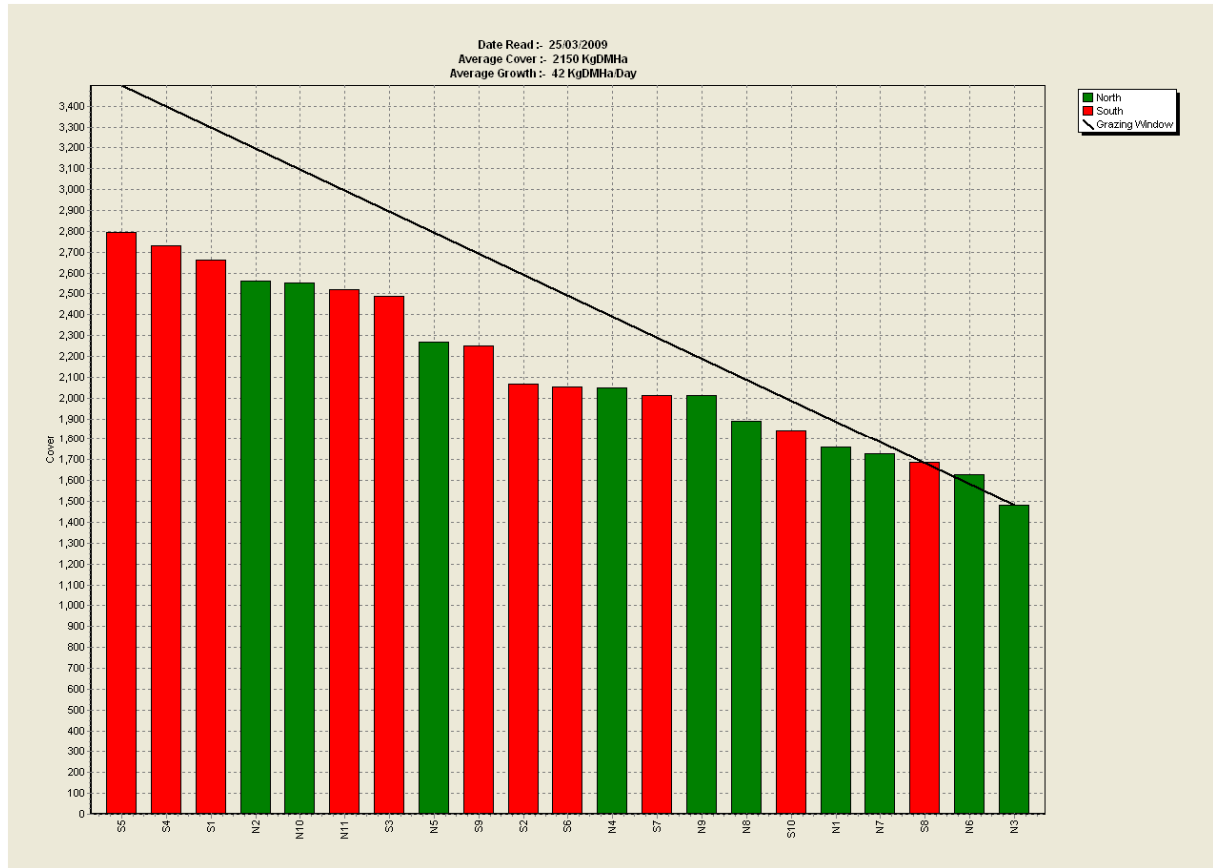


5. SOIL MOISTURE is just in the margin. We haven't done any irrigation this week. Now that we are in the autumn evapo-transpiration rates have dropped and persistent high rates are not likely to occur. Our plan is to now allow soil moisture levels to drop lower than the target we have been running at through most of the summer. This is to allow more space for autumn rain.
6. PASTURE GROWTH was 42 kg DM/ha (previous week 58 kg DM/ha).
7. Average pasture cover has decreased to 2150 kg DM/ha from 2244 kg DM/ha last week. Pasture quality test done on the 18<sup>th</sup> of March showed that the Dry Matter percentage increased to 15.7 % from 12.7 %. The MJME went from 11.6 MJME to 12.2MJME.
8. The DM% of the pasture has increased to what is expected at this time of the year so cows should have come back up to the DM intake allocated to them. The low level of

DM of the pasture during recent weeks has seen cows struggling to eat enough to harvest enough Dry Matter to maintain milk production and live weight.

9. Last week the overall rotation length was 26.5 days on 159.1 ha. We maintained this round by feeding silage at 2.2 kg DM/ cow/day. We now have all paddocks back in the round.

10. The Pasture Wedge today

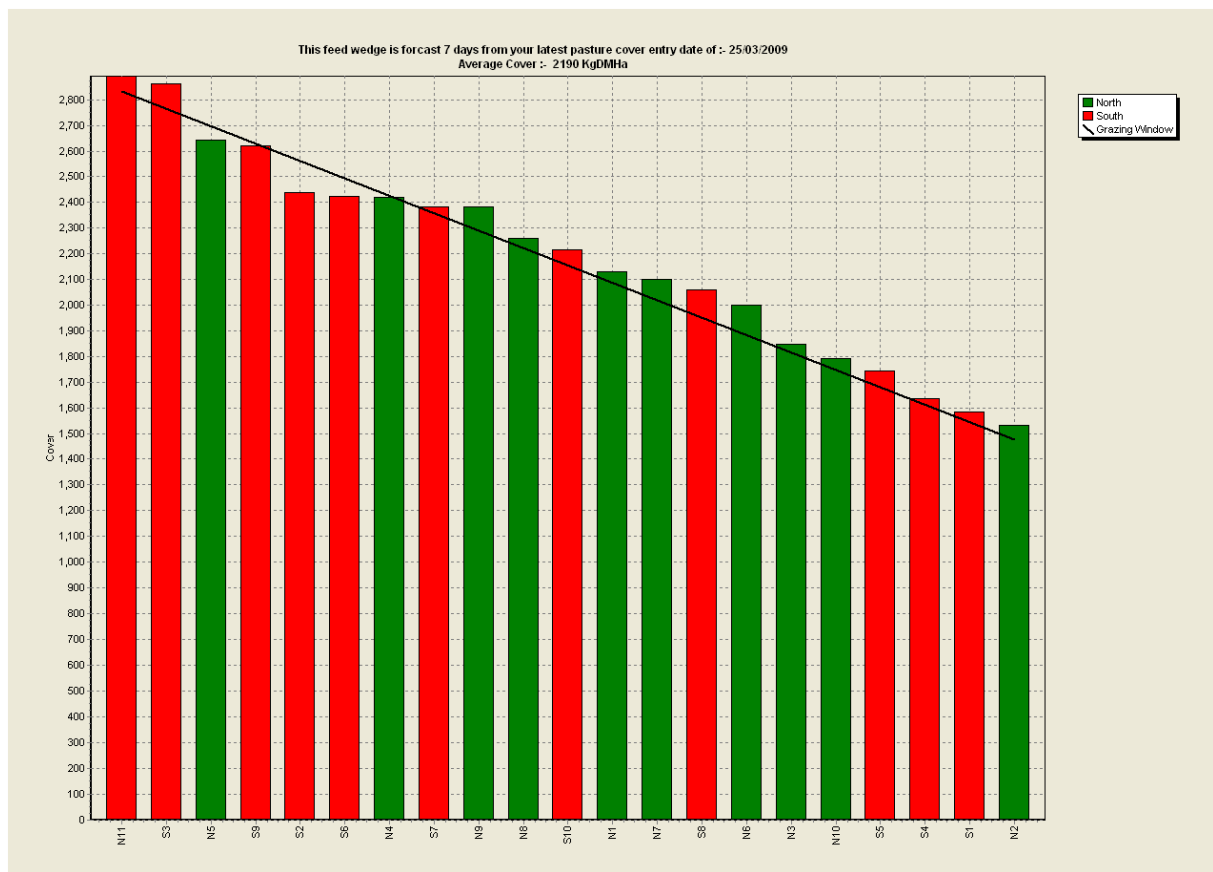


11. The target line in the wedge above reflects the pre-grazing target for a 30 day rotation, feeding an average of 17kg DM/cow at a stocking rate of 3.96 cows/ha.  $(3.96 \times 30 \times 17) + 1480 = 3499$  kg DM/ha. Yes - quite a large gap between the line and the feed available - something will have to change.

12. This week we really need to be on a 30 day round otherwise the feed deficit will become too big and difficult to achieve the Average Pasture Cover at Drying off.

13. To achieve a round length of 30 days and achieve the intake of 17kg DM/cow we need to feed 5 kg silage Dry Matter per cow per day and drop the stocking rate to 3.7 cows/ha. We will dry off and remove 40 cows which are the low producing empties.

14. The **predicted wedge** below shows the pre-grazing target for a 30 day rotation, feeding an average of 12 kg DM/cow (pasture) at a stocking rate of 3.7 cows/ha  $(3.7 \times 30 \times 12) + 1480 = 2812$  kg DM/ha and assuming a growth of 53 kg DM/ha/day.



15. We have done a feed budget and we have a set of Average Pasture cover targets that we are trying to achieve. The decisions we make from now on will depend on how are we tracking to achieve these targets and the cow condition targets.
16. We are continuing a round of Urea application with 40 kgN/ha to capture the potential of the current autumn period. In previous years the next 4 - 5 weeks have seen very strong pasture growth.
17. On average the herd put on 12 kgLW over the last week. Any light and early calvers who are below 4 condition by 10<sup>th</sup> April will be dried off. These cows will normally be fed off farm and managed by us.
18. Production /ha is 5.46 kg MS/ha/day. Per cow production is 1.38 kg MS/cow/day last week 1.35 kg MS/cow/day.
19. The Somatic Cell count ranged from 187 - 223. There were no cows with fresh clinical mastitis found this week.
20. The number of lame cows was 6 this week.
21. This is also the time of the year when we are talking to our winter grazing suppliers to confirm what areas of grass and crop are available and to check on the progress of any crops.
22. The eco-n for the autumn has been ordered and will begin to be applied from Mid April.

The next WEEKLY farm walk is on Tuesday 31<sup>st</sup> March 2009 at 9.00am.

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### Management Group

Peter Hancox (Farm Manager), Neil Jones (Herd Manager), Virginia Serra (DairyNZ), George Reveley (for SIDDC).

# Lincoln University Dairy Farm - Farm Walk notes

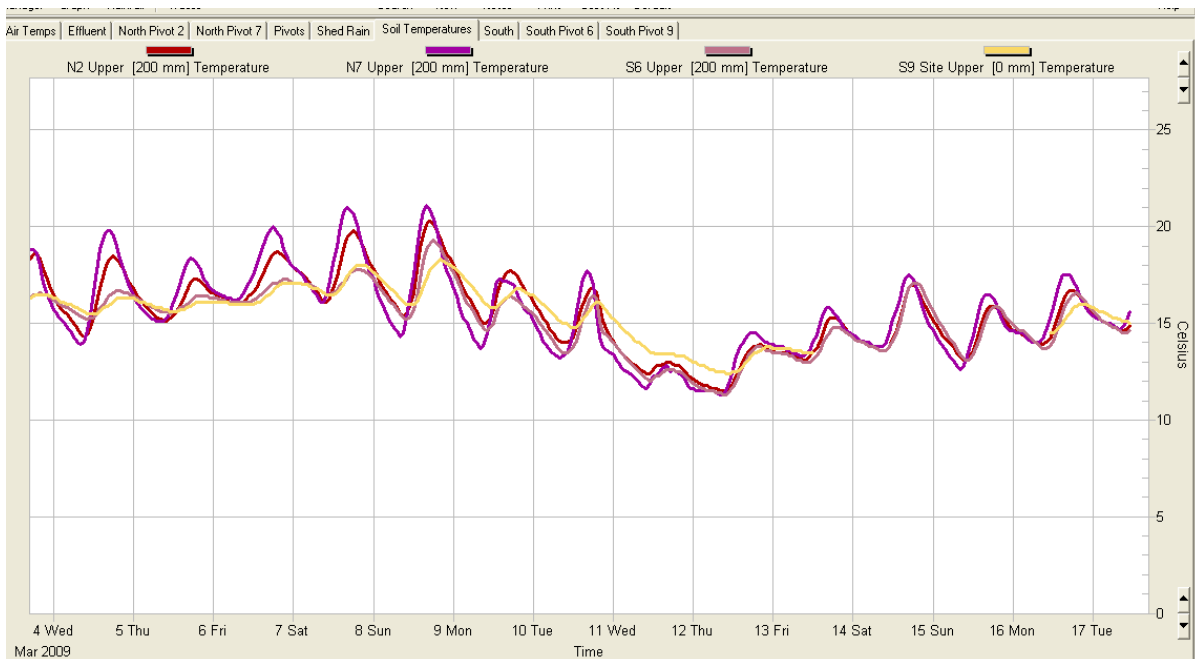
Tuesday, 17<sup>th</sup> March 2009

## Critical issues for the short term

1. **Keep lengthening the round to achieve 30 days by the end of March.**
2. **Maintain grazing residuals to 7 “clicks”.**
3. **Continue monitoring cow condition to achieve the target of cow condition at calving.**

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

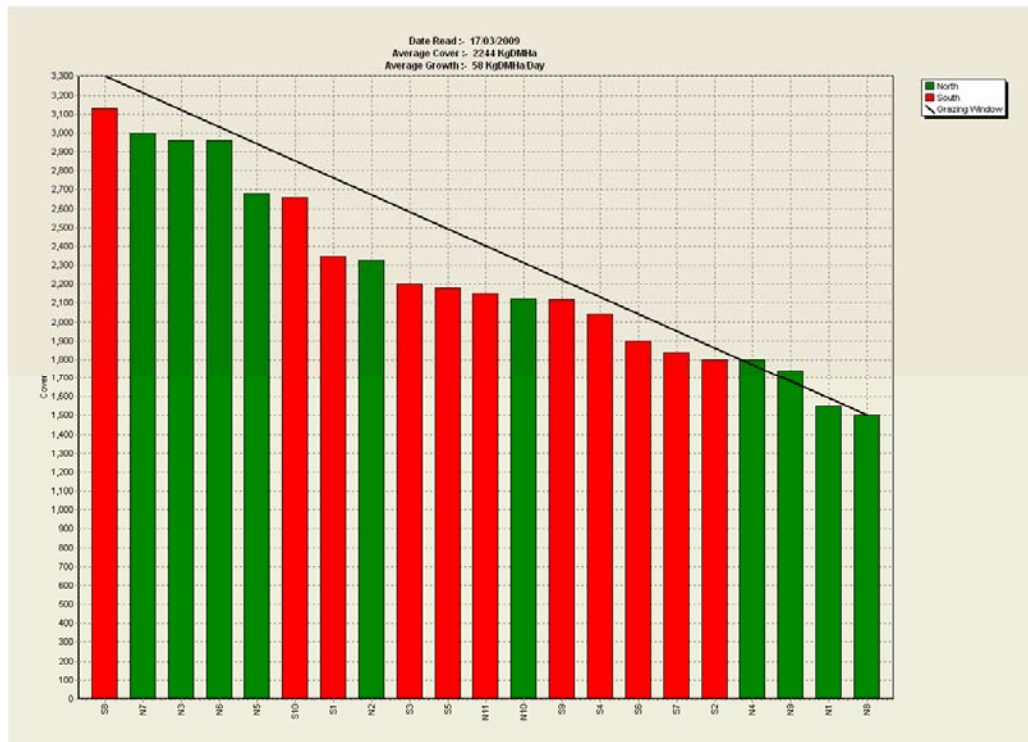
4. Soil Temperatures at 9 am have dropped by as much as 4 degrees over the week. Ranging between 11 and 15°C at 9am. The average for the week has been about 13°C.



5. **SOIL MOISTURE** - we are still doing occasional irrigating. Now that we are in the autumn evapo-transpiration rates have dropped and persistent high rates are not likely to occur. Our plan is to now allow soil moisture levels to drop lower than the target we have been running at through most of the summer. This is to allow more space for autumn rain.
6. **PASTURE GROWTH** was 58 kg DM/ha (previous week 94 kg DM/ha).
7. Average pasture cover has decreased to 2244kg DM/ha from 2391kg DM/ha last week. Pasture quality test recently showed that the DM percentage was only 12.7 %. This very low level meant that cows were struggling to eat enough to harvest enough DM to maintain milk production and live weight. It was also very likely that pasture estimations with the plate meters were overestimates. Weather conditions over the past week have led to a raising of the pasture DM enabling the cows to eat the feed they need and also we will have a slight under estimate of pasture growth this week.
8. Last week the overall rotation length was 29 days on 159.1 ha. We now have all paddocks back in the round. This longer round was achieved because there were six paddocks above the target line last week.

9. Paddock S4 sown 5 weeks ago had its first nip off last week and was sprayed this week for broad leaf weeds.

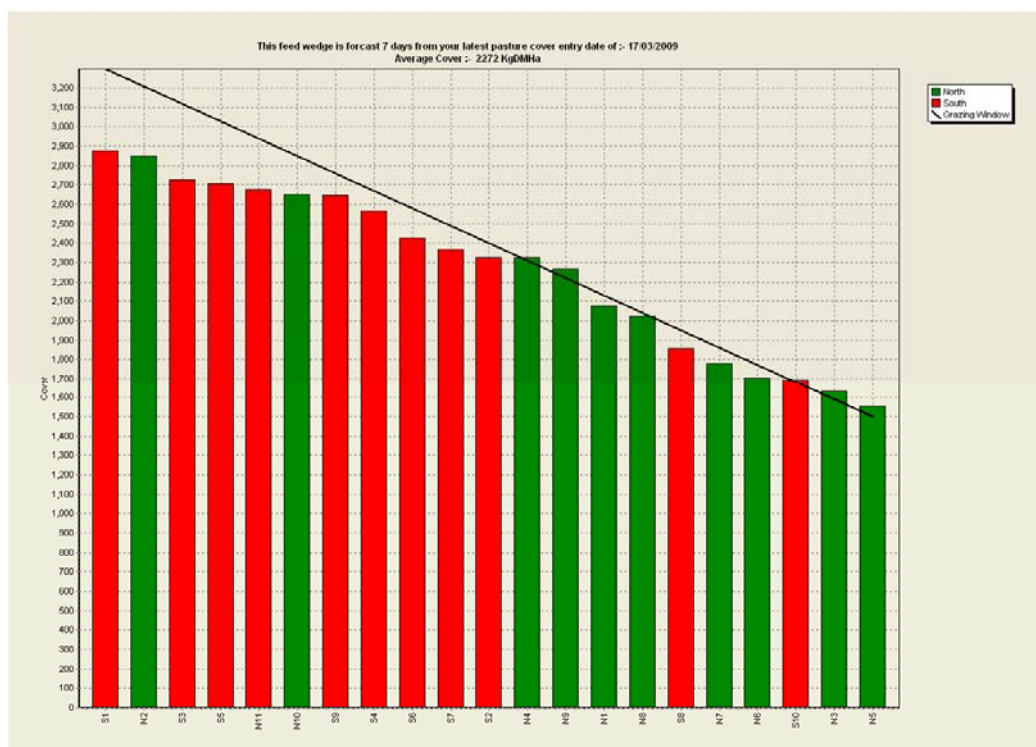
10. The Pasture Wedge today



11. The target line in the wedge above reflects the pre-grazing target for a 27 day rotation, feeding an average of 17 kg DM/cow at a stocking rate of 3.96 cows/ha.  
 $(3.96 \times 27 \times 17) + 1480 = 3297$  kg DM/ha.

12. This week we will need to feed 2kg silage DM/cow/day using a grazing round of 27 days to achieve the intake of 17 kg DM /cow.

13. The **predicted wedge** below shows the pre-grazing target for a 27 day rotation, feeding an average of 17 kg DM/cow at a stocking rate of 3.96 cows/ha ( $3.96 \times 27 \times$



14. We have culled down to a herd of 630 cows and will maintain that number for another week at least. We have considered culling another 40 cows and avoiding any silage feeding but we could still see substantial pasture growth and we consider it too early to make this move. Next week we will make a call regarding the most likely dry off dates for thin cows and run a detailed feed plan to estimate the best dates to cull the remainder of the cull cows.
15. We are beginning a round of Urea application with 40 kgN/ha to capture the potential of the current autumn period. In previous years the next 4 - 5 weeks have seen very strong pasture growth.
16. Cow condition is a big concern and is a threat to completing a full lactation presently. The average cow condition of the herd is 4. This means that there are a good proportion of the cows below 4 and we need to take some action to achieve the targets. The options we have been considering are
  1. Milking cows twice a day and dry cows off by cow condition and calving day. For example, an early calving cow that is 3.5 condition will be dried off by the 10<sup>th</sup> of April. These cows will normally be fed off farm and managed by us.
  2. Because of the size of the problem this year we are also considering using once a day milking from an early date with the whole herd. However, this could be a bit challenging considering the SCC of the herd.
  3. The other option could be to split the herd and have the worst ones on once a day. However this option will bring challenges to the team from a practical point of view.
17. Production /ha is 5.31 kg MS/ha/day. Per cow production is 1.35 kg MS/cow/day last week 1.38 kg MS/cow/day.
18. The Somatic Cell count ranged from 208 - 176. There were 2 cases of fresh clinical mastitis found this week.
19. The number of lame cows was 5 this week.
20. Cow live weight average seems to be stable, with a wide range of weight gain and weight loss, i.e. some cows gaining weight and some losing.
21. This is also the time of the year when we are talking to our winter grazing suppliers to confirm what areas of grass and crop are available and to check on the progress of any crops.
22. The eco-n for the autumn has been ordered and will begin to be applied from Mid April.

The next WEEKLY farm walk is on Tuesday **24<sup>th</sup> March 2009 at 9.00am.**

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### **Management Group**

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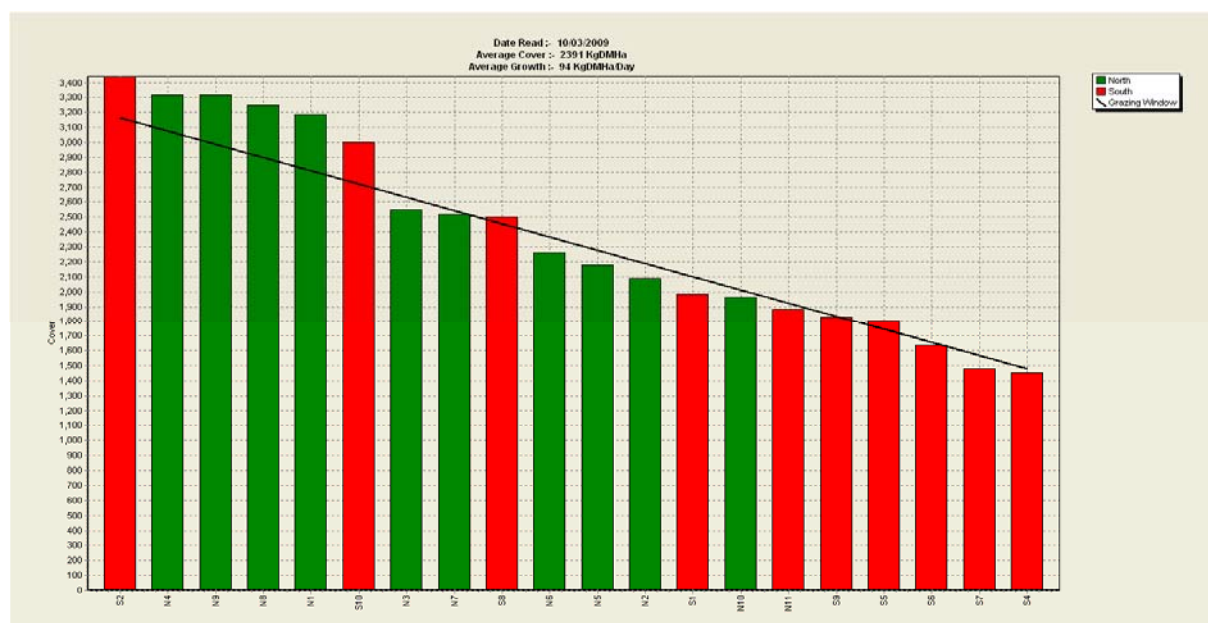
Tuesday, 10<sup>th</sup> March 2009

## Critical issues for the short term

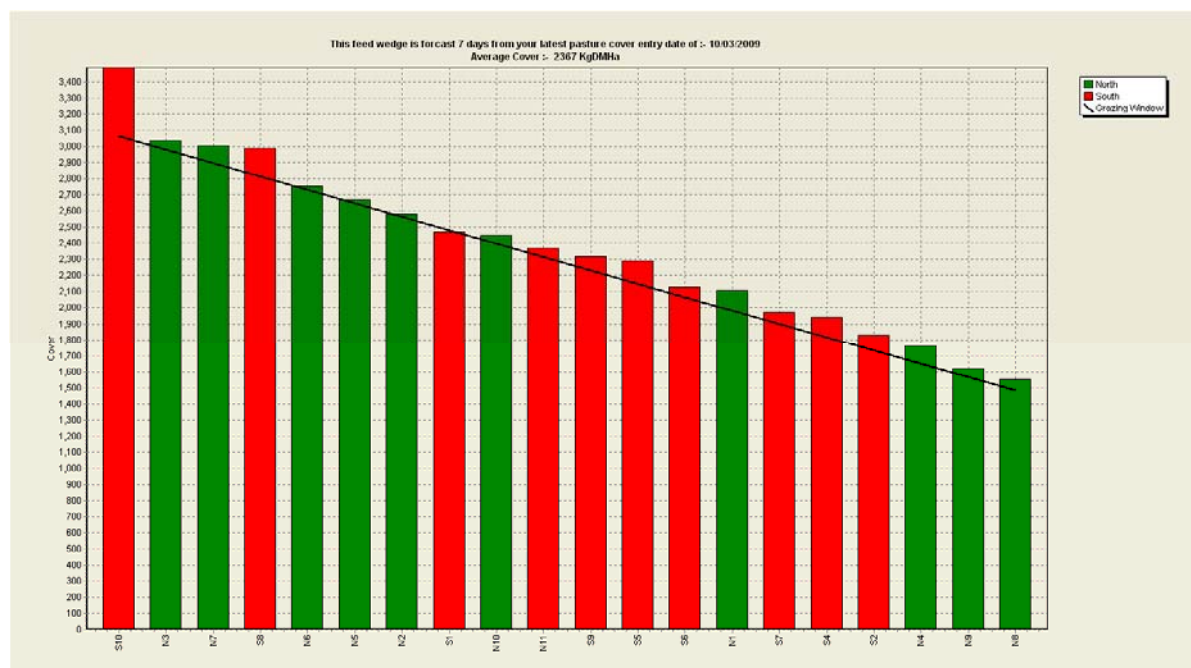
1. **Keep lengthening the round to achieve 30 days by the end of March.**
2. **Start monitoring cow condition to achieve the target of cow condition at calving.**

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

3. Soil Temperatures at 9.00 am had dropped by 1.5 - 2 degrees in the last three days of the week. At the beginning of the week was about 16°C. The average for the week has been about 15°C.
4. SOIL MOISTURE was dropping from last week so we started irrigating last Friday to maintain soil moisture levels.
5. PASTURE GROWTH was 94 kg DM/ha (previous week 87 kg DM/ha).
6. Average pasture cover has increased slightly to 2391 kg DM/ha from 2318 kg DM/ha last week. A pasture quality test done last week showed that the Dry Matter percentage was only 12.7 %. This very low level means we are currently overestimating the dry matter available when doing the farm walk. This low dry matter level raises the issue of cows not being able to eat enough dry matter in a day, because there is not enough dry matter in the total feed they can fit in their guts during the day.
7. Last week the overall rotation length was 23 days on the 151 ha. This week S4 is back in the round, this will lengthen the round naturally especially as there has been growth above demand.
8. Paddock S4 sown 4 weeks ago had its first nip off this week. The paddock needs to be sprayed for broad leaf weeds immediately.
9. The Pasture Wedge today



10. The target line in the wedge above reflects the pre-grazing target for a 25 day rotation, feeding an average of 17 kg DM/cow at a stocking rate of 3.96 cows/ha.  $(3.96 \times 25 \times 17) + 1480 = 3163$  kg DM/ha. The increase allocated intake per cow from 16 kg DM to 17 kg DM/cow/day was done to compensate for the lower Dry Matter percentage of the grass
11. This week we will not need to feed any silage and achieve a round of 25 days and the intake of 17 kg DM/cow of grass.
12. The **predicted wedge** below reflects the pre-grazing target for a 25 day rotation, feeding an average of 16 kg DM/cow at a stocking rate of 3.96 cows/ha  $(3.96 \times 25 \times 16) + 1480 = 3064$  kg DM/ha and assuming a growth of 70 kg DM/ha/day.



13. We culled 10 empties which were old cows last week. There are another 7 cull cows going tomorrow bringing the number of milking cows to 630. We would not expect to cull any more cows until about the 10<sup>th</sup> of April when growth will most likely drop below demand from the 630 cow herd.
14. Urea started 3 weeks ago and has been applied to the whole farm. Next week we will start the next round of Urea at 65kg/ha.
15. Cow condition is a big concern and is a threat to completing a full lactation presently. The average cow condition of the herd is 4. This means that there is a good proportion of the cows below 4 and we need to take some action to achieve the targets. The options we have been considering are:
  1. Milking cows twice a day and dry cows off by cow condition and calving day. For example, an early calving cow that is 3.5 condition will be dried off by the 10<sup>th</sup> of April. These cows will normally be fed off-farm and managed by us.
  2. Because of the size of the problem this year we are also considering using once a day milking from an early date with the whole herd. However, this could be a bit challenging considering the SCC of the herd.

3. The other option could be to split the herd and have the worst ones on once a day. However, this option will bring challenges to the team from a practical point of view.
  
16. Considering the Dry Matter percentage of the grass (12.6%) and the quality of the grass (11.6 MJME/kg DM), the amount of energy eaten by the cow is about 151 MJME (13 Kg DM x 11.6 MJME /kgDM). Considering the actual milk production on the herd (1.4 kg MS/cow x 70 MJME/kg MS) the energy requirement for production is 98 MJME/cow/day. This leaves 53 MJME per cow per day for maintenance, which does not allow any condition gain.
  
17. Production /ha is 5.45 kg MS/ha/day. Per cow production is 1.38 kg MS/cow/day last week 1.35 kg MS/cow/day.
  
18. All mating finished Thursday 8<sup>th</sup> January (10 weeks). A full herd pregnancy scan on the 19 January confirmed the 6 week in-calf rate at 69%. The final scan done on the 16 February shows that 80% of the cows are in calf after 10 weeks of mating. This is 1% better than last year.
  
19. The R2's were pregnancy tested 4 weeks ago and shows 95.5% in calf rate at 9 weeks of mating.
  
20. The Somatic Cell count ranged from 201 - 290,000. There were 7 cases of fresh clinical mastitis found this week. A group of 26 high SCC cows were alerted through ProTrack after the Herd Test was done 2 weeks ago. From these 26 cows, 7 have been treated.
  
21. The number of lame cows was 3 this week.
  
22. This is also the time of the year when we are talking to our winter grazing suppliers to confirm what areas of grass and crop are available and to check on the progress of any crops.

The next WEEKLY farm walk is on Tuesday 17<sup>th</sup> March 2009 at 9.00am.

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### **Management Group**

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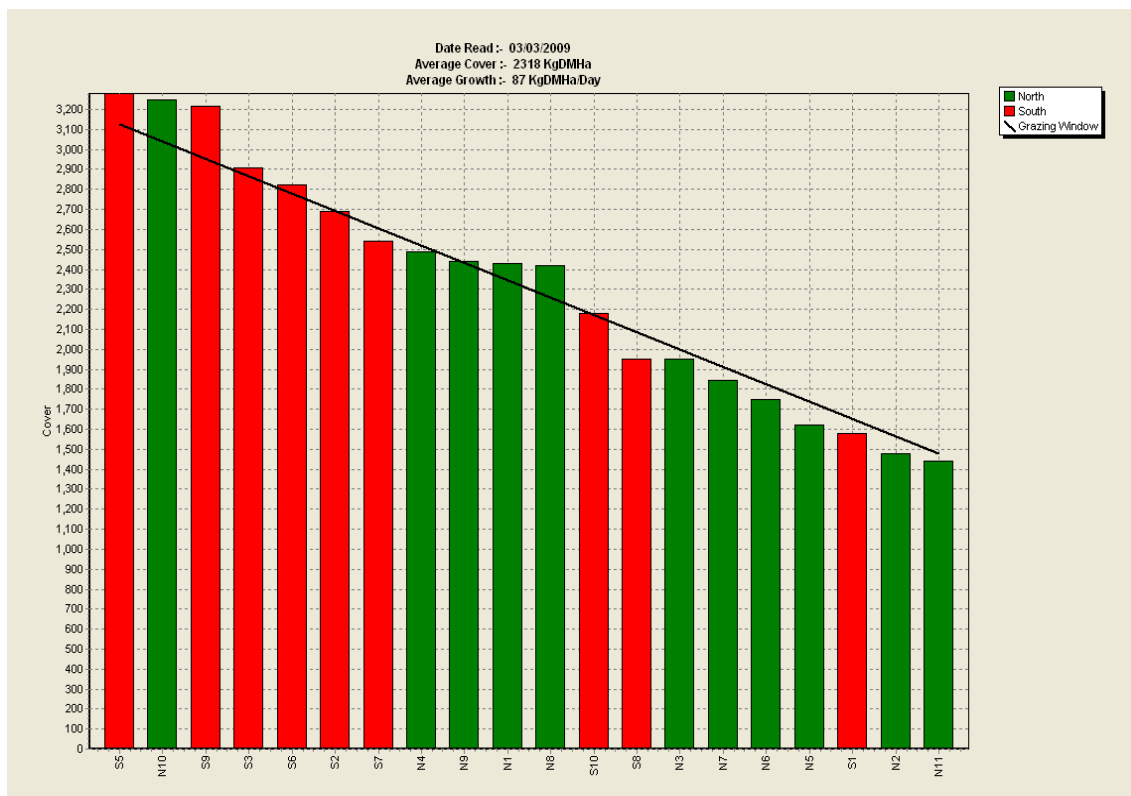
Tuesday, 3 March 2009

## Critical issues for the short term

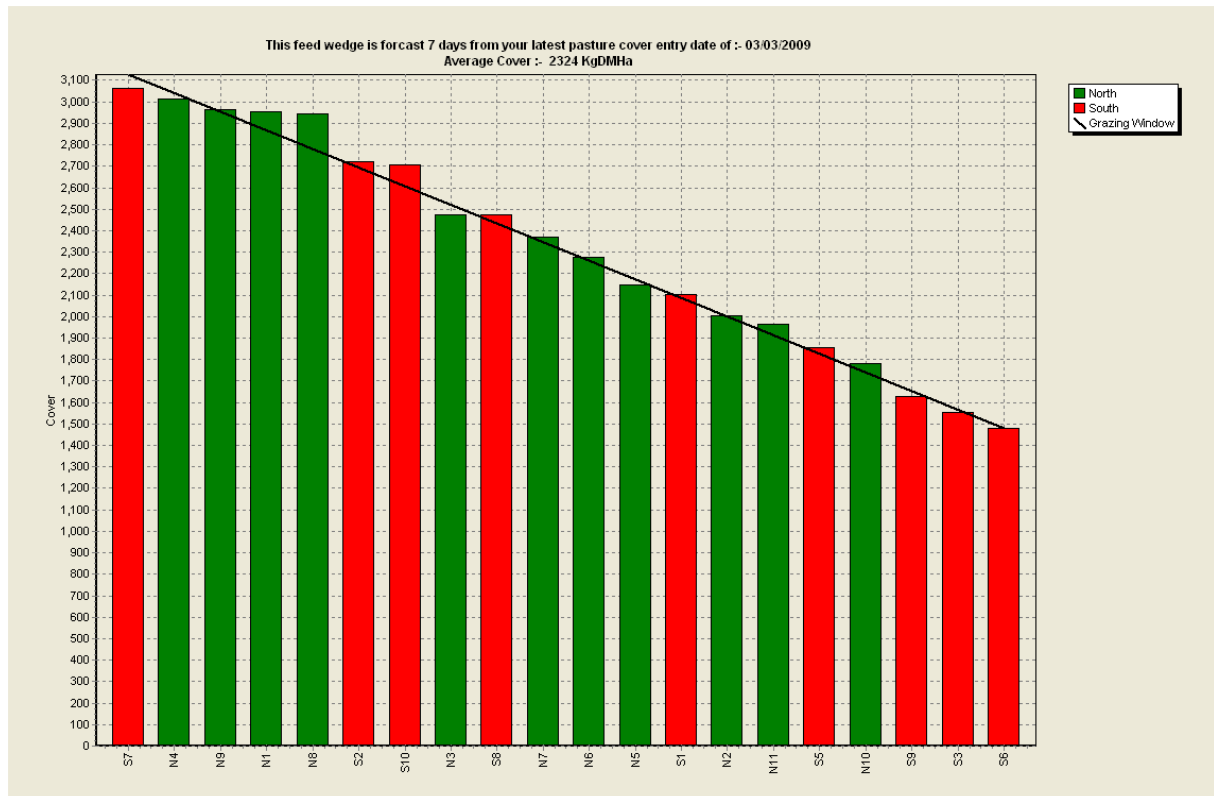
1. Maintain the rotation length at 24 days.
2. Start monitoring cow condition to achieve the targeted cow condition for calving.

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

3. Soil Temperatures at 9.00 am have been steady at about 15°C.
4. SOIL MOISTURE levels are declining and depending on the weather we may need to start irrigating the lighter soils. All irrigation has been off for the last 3 weeks. We have in mind that if we get 3 days of warm weather we may need to start irrigating the whole farm again.
5. PASTURE GROWTH was 87 kg DM/ha (previous week 73 kg DM/ha).
6. Average pasture cover has increased to 2318 kg DM from 2103 kg DM/ha last week.
7. Last week the overall rotation length was 24 days on the 151 ha, from 20.5 days the week before. To slow down the round we fed 20.4 t DM of silage averaging 4.58 kg DM/cow/day.
8. Paddock S4 sown 24 days ago, will have its first nip off this week. It will be back in the round in about 2 weeks. It will need to be sprayed for broad leaf weeds.
9. The Pasture Wedge today



10. The target line in the wedge above reflects the pre-grazing target for a 24 day rotation, feeding an average of 16kg DM/cow at a stocking rate of 4.29 cows/ha.  $(4.29 \times 24 \times 16) + 1480 = 3127$  kg DM/ha.
11. This week we will not need to feed any silage to keep the round at 24 days and the intake at 16kg DM/cow of grass.
12. The **predicted wedge** shows if we get a growth next week of 70 kg DM/ha/day.



13. We are quite pleased that we did not cull or dry any cows off last week as the growth rates increased as was predicted.
14. We are quite comfortable with a round length of 24 days. The target will be to extend the round to 25 days, which will be achievable when S4 will also come back into the grazing round.
15. Urea started 2 weeks ago and has been applied to most of the farm except for 3 paddocks. These will be done following the cows this week.
16. The cows have had a small weight loss this week.
17. Production/ha is 5.45kg MS/ha/day. Per cow has decreased slightly to 1.35kg MS/cow/day from last week i.e. 1.43 kg MS/cow/day.
18. All mating finished Thursday, 8<sup>th</sup> January (10 weeks). A full herd pregnancy scan on the 19<sup>th</sup> January confirmed the 6 week in-calf rate at 69%. The final scan done on the 16<sup>th</sup> February shows that 80% of the cows are in-calf after 10 weeks of mating. This is 1% better than last year.

19. The R2's were pregnancy tested three weeks ago and shows 95.5% in-calf rate at 9 weeks of mating.
20. The Somatic Cell count ranged from 208 - 216,000. There were 7 cases of fresh clinical mastitis found this week. A group of 26 high SCC cows were alerted thru ProTrack after the Herd Test was done last Tuesday. From these 26 cows, 7 have been treated.
21. The number of lame cows was 8 this week. Lame cow numbers through the summer have been very similar to previous years even though we have had no bulls at all with the herd for mating.
22. This is also the time of the year when we are talking to our winter grazing suppliers to confirm what areas of grass and crop are available and to check on the progress of any crops. Negotiations on price are always a problem.

The next WEEKLY farm walk is on Tuesday, **10<sup>th</sup> March 2009 at 9.00am.**

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