

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 28th August 2007

Critical issues for the short term

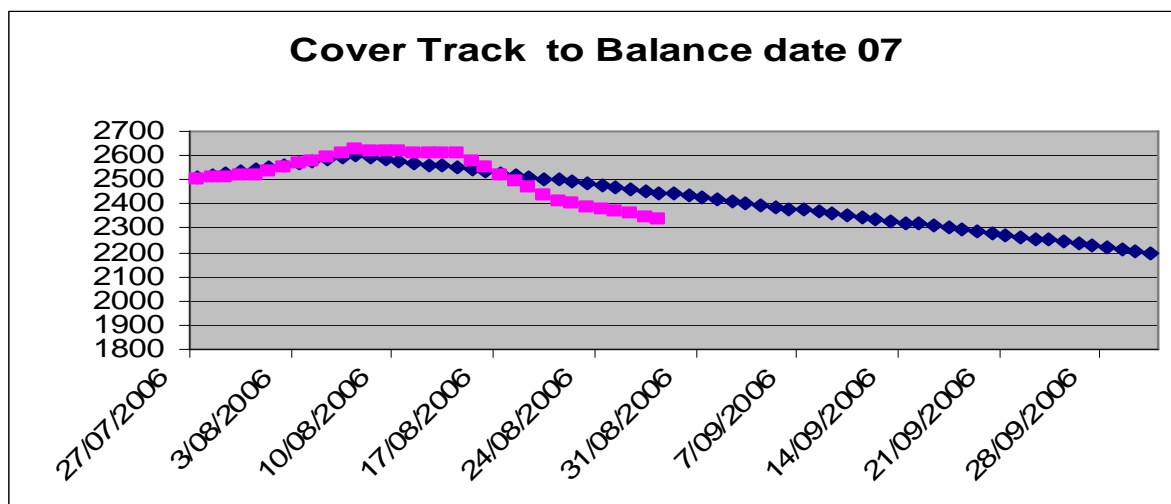
1. **Back fence mobs on grass including animals on runoffs.**
2. **Make sure all cows are getting MgO dusted and milkers also get lime flour.**
3. **Stick to First Round Planner**

Summary of Key Factors affecting Grazing Management & Animal Performance

4. SOIL TEMPS at 10am have been around 7.5° C all week.
5. PASTURE GROWTH was 21 kg DM/ha (last week 31) on the milking platform.
6. We now have 479 calved cows of which 421 are going into the vat.
7. Milk production was 1.74 kg MS/cow/day (up from 1.65) and 4.5 kg MS /ha/day. Production levels are not as good on a mix of grass and silage as they would be with the same allocation of just grass. The difference is about 6 ME or 0.1 kg MS/cow.
8. There have been nine new mastitis cases this week so the treatment mob is now below 14 cows. Cows are coming in with mastitis and clearing their infections very well.
9. For our First Round planner of 60 days starting 24 July includes the milking platform area plus the 18 ha East block.

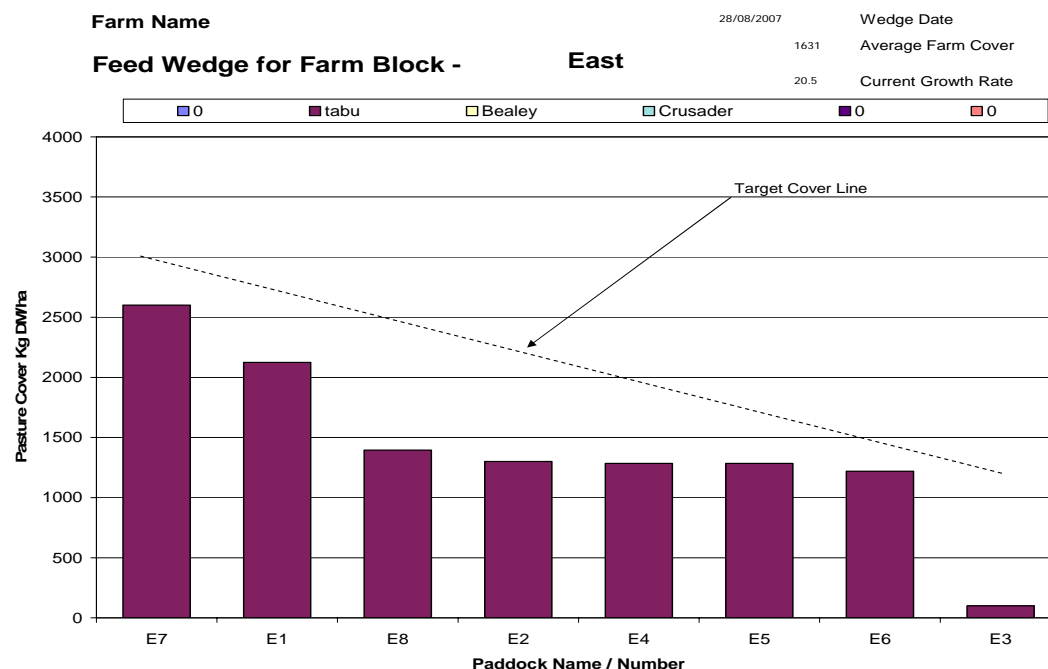
Week	Date (start of week)	Milking cows (Avg)	Area grazed for week by milkers	Average Dry cows (home)	Area grazed for week by dry cows	Total area to be used for week	Actual area used for the week
1	24 Jul	157	2.2	118	1.7	3.9	3.9
2	31 Jul	267	4.5	493	4.1	8.6	7
3	7 Aug	377	9.3	383	5.9	14.2	16
4	14 Aug	457	14.6	288	5	19.6	21.4
5	21 Aug	517	17	218	3.8	23.5	23
6	28 Aug	567	19	163	2.9	25.2	
7	04 Sept	607	24.7	118	2.1	30.7	
8	11 Sept	632	30.4	86	1.5	31.9	
9	18 Sept	657	38.3	61	1.1	39.4	

10. This week the total area of pasture used by all mobs (drys and calved cows) was 23 ha, an average of 3.3 ha/day or 1/55th of the farm /day.
11. This coming week we will have to hold the total area used to less than 25.2 ha plus silage or the looming feed deficit in three weeks will get much worse.
12. AVERAGE PASTURE COVER has dropped from 2410 kg DM/ha to 2337 kg DM/ha.



13. This drop in cover this week has not been great as the week previous. Firmer soil conditions have allowed the dry cows to be restricted further on grass and fed more silage. In a weeks time we will need to be able to take all the un-calved cows off the milking platform and back to the East block if we are to have any chance of preventing the decline in average farm cover continuing at the current rate.

14. The target line on the East Block is where the cover on this block should be to be currently able to have the dry/springer cows grazing here. The missing cover was eaten by yearling heifers earlier in the winter because of a lack of feed on the Heifer grazing block.

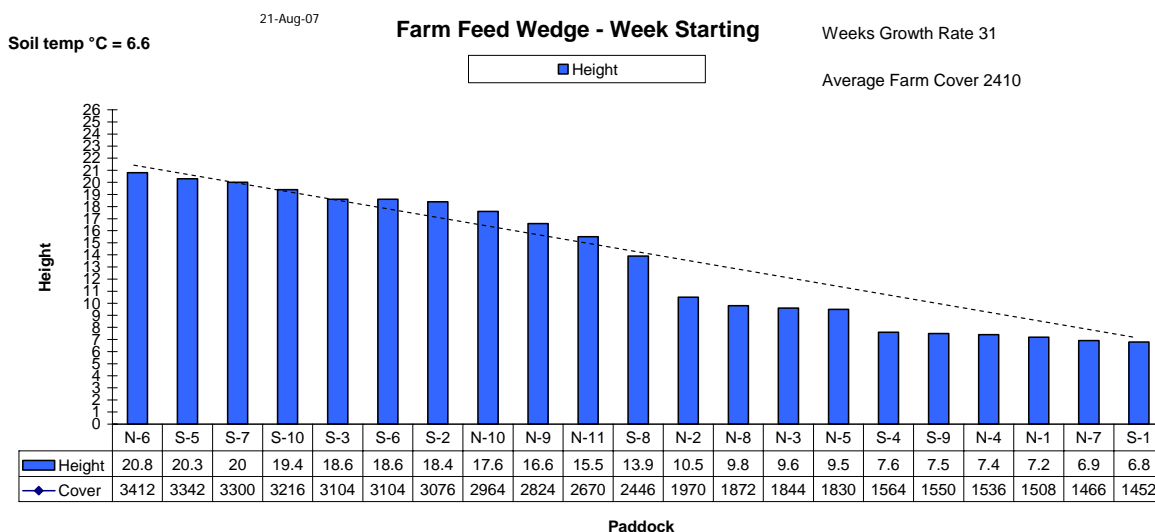


15. The pasture allowance to the cows not yet calved was restricted back to 5 kgs grass plus up to 5 kgs of silage. This will continue again this week

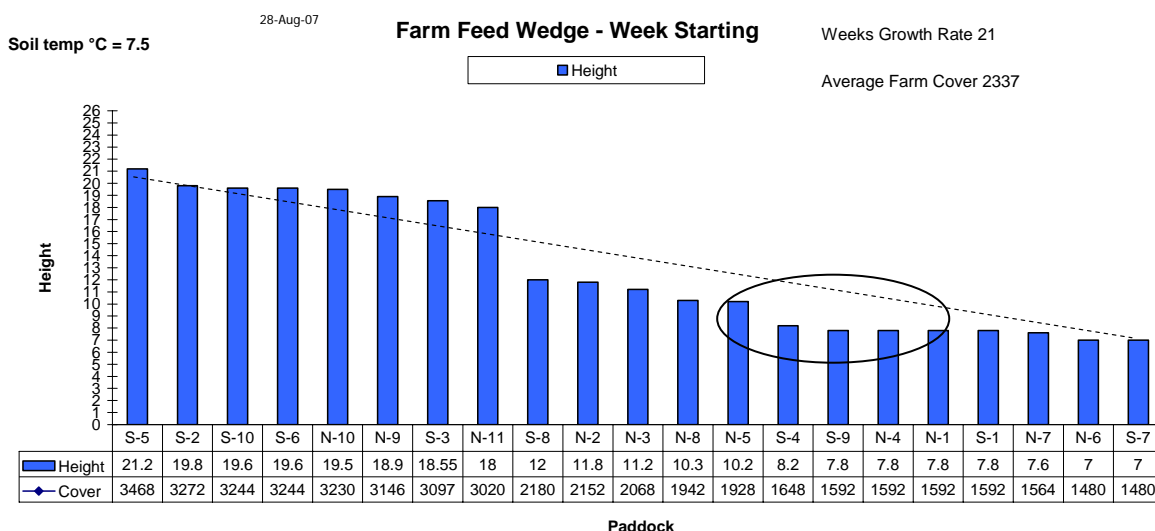
16. We are lifting the allocation to the calved cows from 14.3 kg DM /cow /day last week to 15 for this coming week. On average this was made up of 11 kg DM of grass plus 4 kg silage /cow/day and will be reviewed later in the week.

17. Total silage feed out this week was 17.7 t DM.

Last weeks wedge



This weeks wedge



18. The feed wedge shows that while the situation looks good for the next two to three weeks, there is a sizable deficit coming up after that. We currently have 5 mobs so paddocks S8, N2, S3, and N11 are still partly grazed. The paddocks above the target line are allowing us to keep to our first round planner.

19. The paddocks within the circle were grazed to between 1000 and 1200 kgs DM/ha by dry cows over the winter. Over the winter these paddocks have been growing at a slower rate than the rest of the farm and it is taking a long time for these covers to lift. At this rate they will be grazed later in the second round than planned. This is the first time that we have grazed to such low residuals in the winter, previously we had thin cows on the milking platform grazing to milking cow residuals of 1500 kgs DM/ha (7 clicks). Soil temperatures during the winter were also colder than all other years other than last year after the snow.

20. The last four paddocks above the target line will coincide with the un-calved cows returning to the East Block. This will allow us to hold a longer round and help us to reduce the deficit.
21. We have sufficient reasonable quality silage (ME 11.5) for the milkers and we have purchased another 20t of silage for the dry cows at 22 c/DM delivered on farm.
22. The colostrum cows will continue to be milked OAD as do any lame cows and also the mastitis cows.
23. We will follow the grazing cows with an application of 40 kg N/ha on paddocks as they are finished.
24. Eco-n will also be applied closely following the cows.
25. One hundred and sixty heifer replacement calves have been disbudded and tissue samples taken for DNA analysis. They are now on sheltered pasture on the East block and are being monitored by security. The paddock is well sheltered from the south and each group also has a further wind shelter made of straw bales. These calves will continue to be fed OAD with milk and have ad lib meal.
26. All the cows are getting Mg Oxide dusted on pasture at 100 gm/cow/day. This is in addition to Mg Cl going through the water supply at 60 gm/cow/day. The milkers are also getting 100 gm /cow/day of lime flour dusted onto the pasture.
27. The heifer grazing block is about 10 days growth behind where it needs to be to support the R1yr heifers. We have just found another 10 days of grazing locally (8 ha) which will fill this deficit.
28. The sacrifice paddock on the East block has been cultivated and is being sown in Bealey perennial ryegrass today. The sacrifice paddock on the Heifer Grazing block will also be sprayed with Roundup as soon as possible, cultivated and then re-grassed with Bealey.

The next WEEKLY farm walk is on **TUESDAY 4th August 2007 at 9.00am.**

Management Group

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

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 21st August 2007

Critical issues for the short term

1. Continue to on/off graze as required in wet weather.
2. Back fence mobs on grass.
3. Make sure all cows are getting MgO dusted.
4. Stick to First Round Planner.

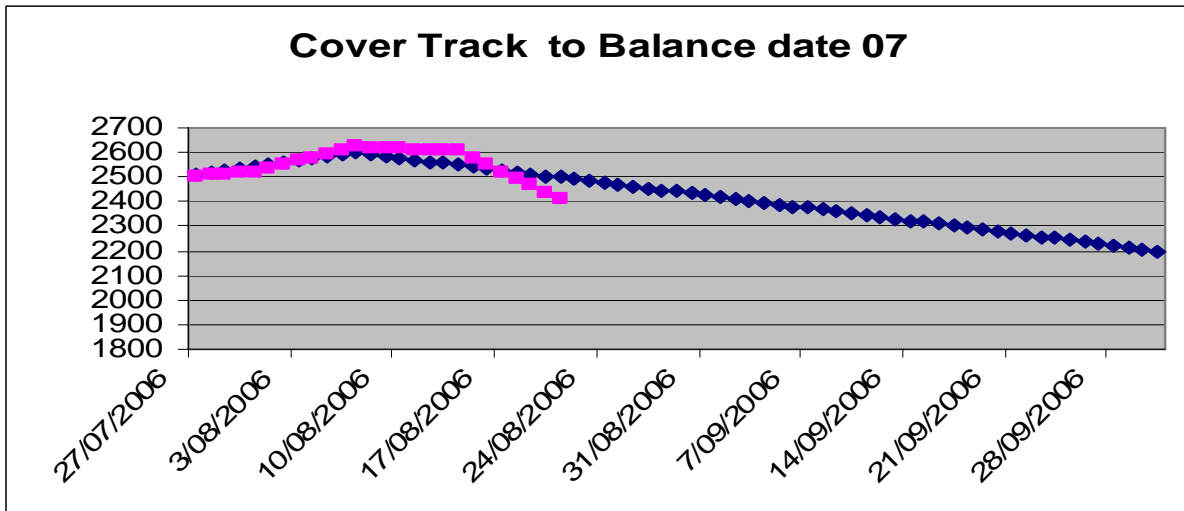
Summary of Key Factors affecting Grazing Management & Animal Performance

5. SOIL TEMPS at 10am have been around 6.6° C all week.
6. PASTURE GROWTH was 31 kg DM/ha (last week 26) on the milking platform. We have had small amounts of rain several time this week which has left the soil surface easily marked.
7. We now have 421 calved cows of which 336 are going into the vat.
8. Milk production was 1.65 kg MS/cow/day (up from 1.54) and 3.3 kg MS /ha/day. Production levels are not as good on a mix of grass and silage as they would be with the same allocation but just grass. The difference is about 6 ME or 0.1 kg MS/cow.
9. Bulk milk SCC has dropped from 250,000 last week to 175,000 and a big drop in new mastitis cases. There are only 16 cows in the mastitis treatment mob currently plus one lame cow. Cows are coming in with mastitis and clearing their infections very well.
10. For our First Round planner of 60 days starting 24 July includes the milking platform area plus the 18 ha East block.

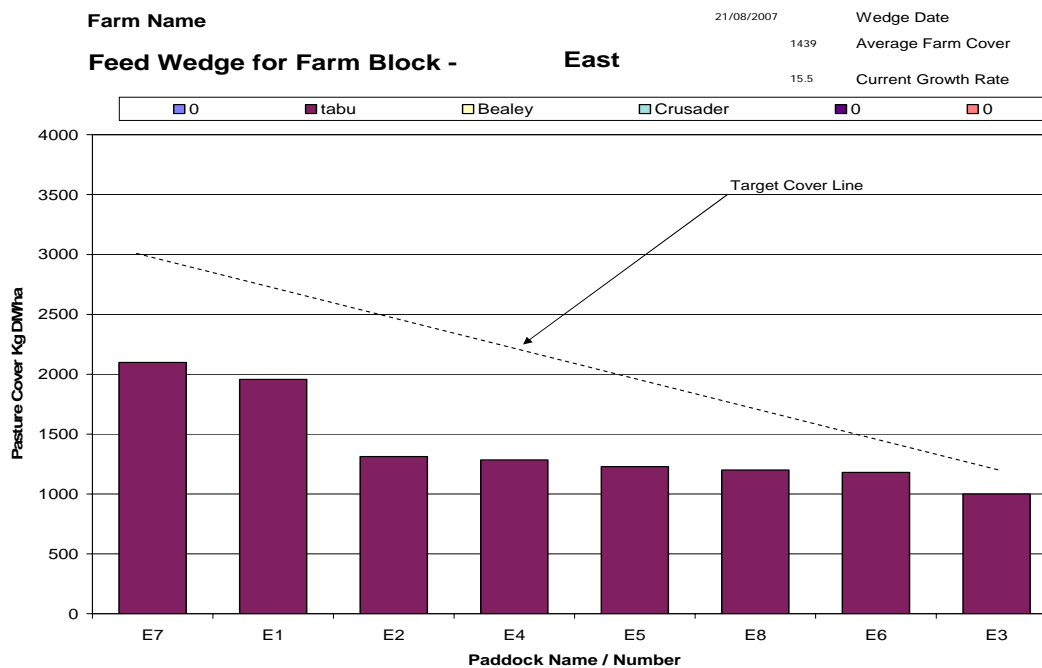
Week	Date (start of week)	Milking cows (Avg)	Area grazed for week by milkers	Average Dry cows (home)	Area grazed for week by dry cows	Total area to be used for week	Actual area used for the week
1	24 Jul	157	2.2	118	1.7	3.9	3.9
2	31 Jul	267	4.5	493	4.1	8.6	7
3	7 Aug	377	9.3	383	5.9	14.2	16
4	14 Aug	457	14.6	288	5	19.6	21.4
5	21 Aug	517	17	218	3.8	20.8	
6	28 Aug	567	19	163	2.9	21.9	
7	04 Sept	607	24.7	118	2.1	26.8	
8	11 Sept	632	30.4	86	1.5	31.9	
9	18 Sept	657	38.3	61	1.1	39.4	

11. This week the total area of pasture used by all mobs (drys and calved cows) was 21.4 ha, an average of 3 ha/day or 1/60th of the farm /day. This was 1.8ha more than the area allowed for last week and occurred because of the wetter weather.
12. This coming week we will have to hold the total area used to less than 21 ha (1/60th of the farm per day) plus silage or the looming feed deficit in three weeks will get much worse.

13. AVERAGE PASTURE COVER has dropped from 2606 kg DM/ha to 2410 kg DM/ha.



14. This drop in cover has occurred because all the dry cows have had to come back to the milking platform due to a lack of grass on the East block. The target line is where the cover on this block should be. The missing cover was eaten by yearling heifers earlier in the winter because of a lack of feed on the Heifer grazing block.



15. The pasture allowance to the cows not yet calved was 10kgDM/cow last week but with the more settled weather and as a result of re-doing the feed budget this group will be restricted back to 5 kgs grass plus up to 5 kgs of silage. .

16. We are on/off grazing and back fencing all mobs to prevent pugging damage.

17. We are lifting the allocation to the calved cows from 13.6 kg DM /cow /day last week to 14.3 for this coming week. On average this was made up of 10 kg DM of grass plus 4 kg silage /cow/day and will be reviewed later in the week. We expect that one of the results of this is that the residuals will lift up to 7 ‘clicks’ (1480 kg DM /ha).

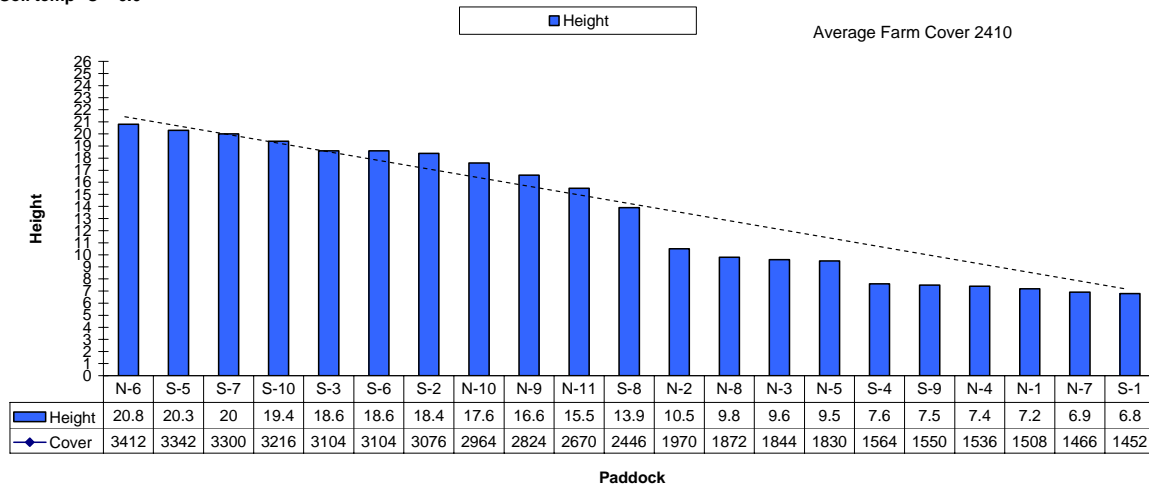
Soil temp °C = 6.6

21-Aug-07

Farm Feed Wedge - Week Starting

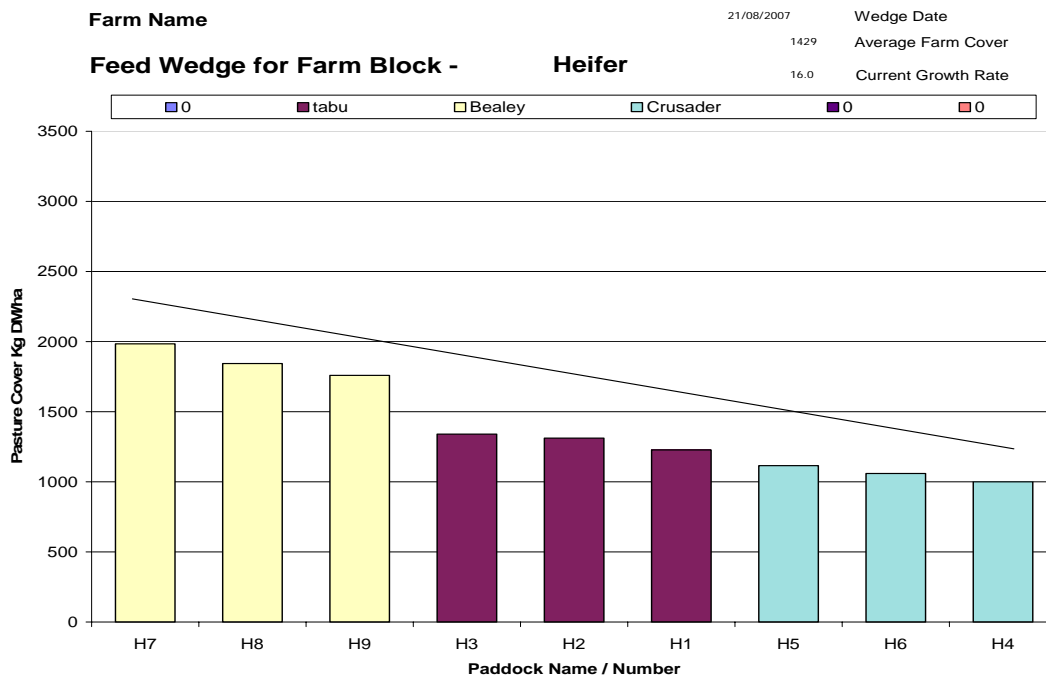
Weeks Growth Rate 31

Average Farm Cover 2410



18. The feed wedge shows that while the situation looks good for the next three weeks, there is a sizable deficit coming up after that. We currently have 5 mobs so paddocks S8, N2, are still partly grazed.
19. We have sufficient reasonable quality silage (ME 11.5) for the milkers we but currently need to find another 20t of silage for the dry cows.
20. This year we have had dry cow mobs on the milking platform grazing down to 1200 kg DM/ha. The next time these paddocks are to be grazed is with the milking cows where the target residual should be 1480 or 7 “clicks”. These paddocks have to grow 250 kg/ha before they even pass “go”. In previous years we had enough winter feed to have any mob on the milking platform leaving residuals of “7 clicks”.
21. The colostrum cows will continue to be milked OAD as do any lame cows and also the mastitis cows.
22. We will follow the grazing cows with an application of 40 kg N/ha on paddocks as they are finished. The support land East and Heifer blocks will also receive 40kg of N this week. The feed from this application will provide some milking feed in late September, a better wedge of feed for the R1’s, and silage.
23. Eco-n will also be applied closely following the cows.
24. The first 80 heifer replacement calves are enjoying shelter and pasture on E2 and E4. The paddock is well sheltered from the south and each group also has a further wind shelter made of straw bales. These calves will continue to be fed OAD with milk and have ad lib meal (as they have been from day one). The next group of 40 calves will be moved from the pens to the training paddock tomorrow.
25. The 120 oldest calves will be disbudded this week and also will have tissue samples taken for DNA analysis.
26. All the cows are getting Mg Oxide dusted on pasture at 100 gm/cow/day. This is in addition to MgCl going through the water supply at 60 gm/cow/day. The milkers are also getting 100 gm /cow/day of lime flour dusted onto the pasture.

27. Heifer Block Pasture wedge



28. This block is about 10 days growth behind where it needs to be to support the R1yr heifers without supplement. The ideal would be to be able to find grazing for 10 days locally as this would be cheaper than silage.
29. Recent dung samples for parasite eggs indicated levels below that needing a worm drench treatment. We plan to do a routine worm drench leading up to mating.
30. We are currently recording all the areas of pasture damaged during winter and early spring and will sow pasture seed onto these areas in the first week of September.

The next WEEKLY farm walk is on **TUESDAY 28th August 2007 at 9.00am.**

Management Group

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

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 14th August 2007

Critical issues for the short term

1. **Make sure all mobs clean their breaks and do not do pasture damage in wet weather.**
2. **Back fence mobs on grass.**
3. **Make sure all cows are getting MgO dusted.**
4. **Stick to First Round Planner.**

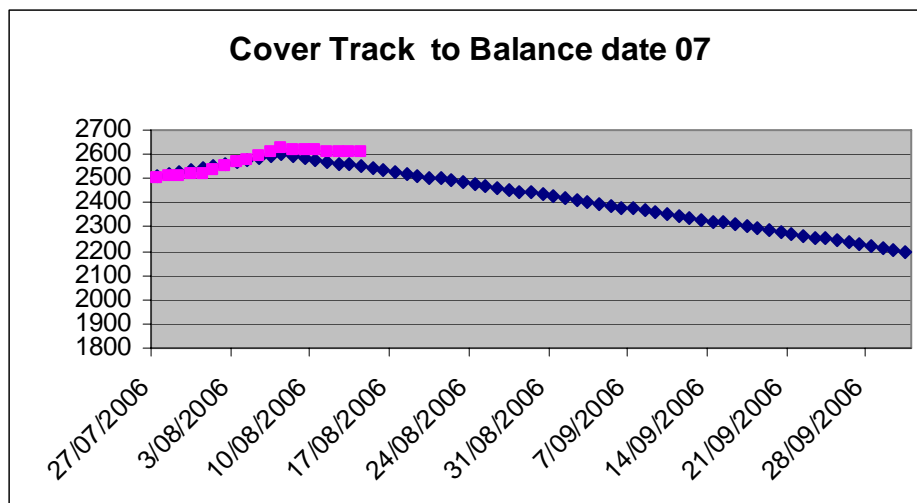
Summary of Key Factors affecting Grazing Management & Animal Performance
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5. SOIL TEMPS have been up most of the week but was down to 5.8° C this morning.
6. PASTURE GROWTH was 26 kg DM/ha (last week 29) on the milking platform, and 19.4 kg DM/day on the heifer grazing block. These growth rates reflect the generally cooler weather this week. We have ongoing rain which has left the soil surface easily marked.
7. We now have 351 calved cows which is 50% of the wintered cows. 78% of the 1st calvers have now calved. Forty five replacement calves have come from these, which is a very pleasing result from the synchronisation programme.
8. Milk production is at 1.54kgms/cow/day from the 230 cows going in the vat. This is slightly behind target but the best year-to-date so far.
9. Bulk milk SCC is running at around 250,000. To date 12% of the calved cows have been treated for mastitis. Cows are coming in with mastitis and clearing their infections very well but the level of infection is of concern.
10. For our First Round planner of 60 days starting 24 July includes the milking platform area plus the 18 ha East block.

Week	Date (start of week)	Milking cows (Avg)	Area grazed for week by milkers	Average Dry cows (home)	Area grazed for week by dry cows	Total area used for week
4	14 Aug	457	14.6	288	5	19.6
5	21 Aug	517	17	218	3.8	20.8
6	28 Aug	567	19	163	2.9	21.9
7	04 Sept	607	24.7	118	2.1	26.8
8	11 Sept	632	30.4	86	1.5	31.9
9	18 Sept	657	38.3	61	1.1	39.4

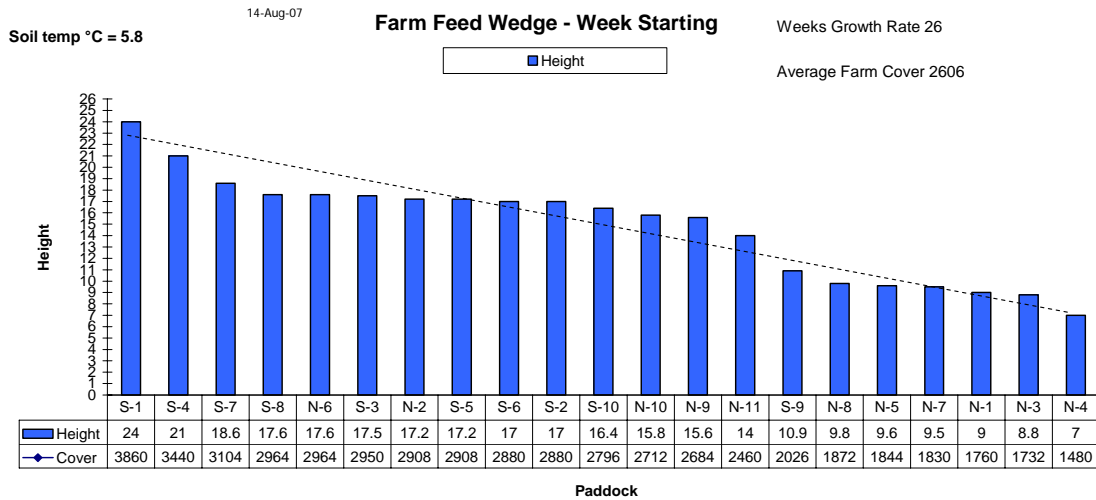
11. In weeks 1 - 4 we have used 29.5ha compared with 32.6ha in the plan. This week the total area of pasture used by all mobs (drys and calved cows) was 16 ha, an average of 2.2 ha/day or 1/81th of the farm /day. This was 1.2ha less than the area allowed for last week. We have been able to do this by feeding out silage while ground conditions have been good. This “extra” 3 ha that we have not used so far will allow us to increase the pasture area on a wet day or to cover any other reason we can not feed silage on a particular day.
12. This coming week we will be using up to 20ha of pasture (1/62nd of the farm per day) plus silage.

13. The springers and dry cows have been getting 9kg DM grass no silage. Pasture allowance will go up to 10kgDM/cow in the coming week.
14. We are on/off grazing and back fencing all mobs to prevent pugging damage. On days when the ground is dry we are feeding out silage to the calved cows to limit the amount of grass allocated. We are targeting an intake of 13.6 kg DM /cow /day (most of the calved cows are heifers) for this coming week. On average this was made up of 10 kg DM of grass plus 3.6 kg silage /cow/day and will be reviewed later in the week. We expect that one of the results of this is that the residuals will lift up to 7 ‘clicks’ (1480 kg DM /ha)
15. AVERAGE PASTURE COVER has dropped from 2623 kg DM/ha to 2606 kg DM/ha. This is just above target for this week



16. The colostrum cows will continue to be milked OAD as do any lame cows and also the mastitis cows.
17. Mastitis cows are treated with antibiotics requiring 24hrs between doses. Any heifers with mastitis are also given oxytocin if required to get them to milk out. Cows with one infected quarter are treated with intra-mammary infusions but all heifers and cows with 2 or more infected quarters get intra-muscular antibiotic. Withholding periods have been extended because of the OAD milking.
18. We are feeding silage now to reduce grass usage at a time when we still have plenty of time in the day for this extra job, ground conditions are dry, and the amount of silage is small. Our aim is to be back to all grass within a few weeks. The need to feed silage has occurred because cows have had to come back from winter grazing earlier than expected.
19. We have updated our feed budgets with current pasture cover and number of cows calved and replacing average growth rates for August and September with actuals as each week passes. Our feed budget now looks healthy and suggests that we will be able to stop feeding silage sooner than previously planned.

20. This weeks feed wedge

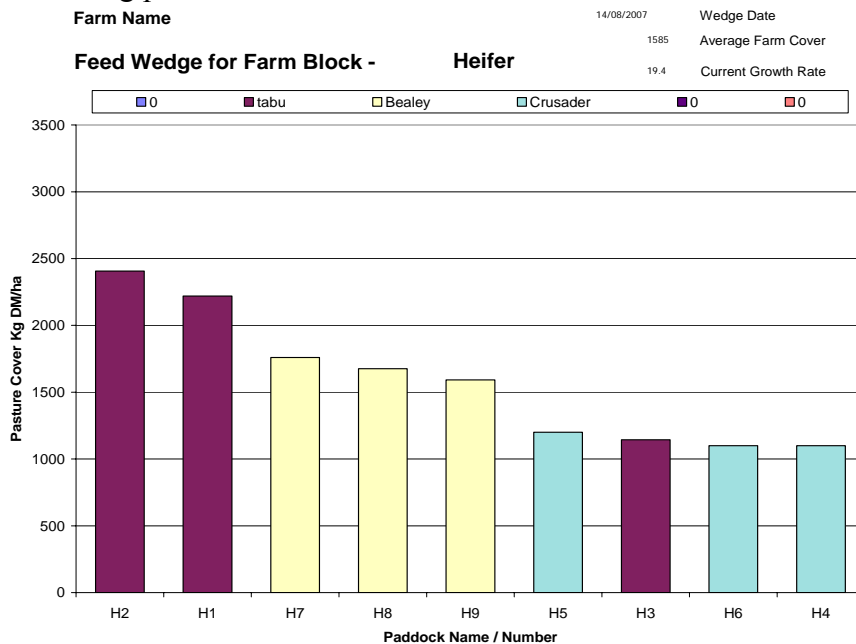


21. Our average pasture cover is right on target but the wedge is not ideal and will take some manipulation to make it even by balance date. Paddocks S9, N7, S4 and N2 are partly grazed. We are alternating between wet and drier paddocks as weather conditions require. Most of our soils are firm with the only issue when it is raining and the day or two after when the surface is quite easily marked.

22. We will follow the grazing cows with an application of 40 kg N/ha on paddocks as they are finished. The support land East and Heifer blocks will also receive 40kg of N this week. The feed from this application will provide some milking feed in late September, a better wedge of feed for the R1's, and silage.

23. Eco-n will also be applied closely following the cows.

24. The East block first round has been completed by the cows. All cows are now on the milking platform.



25. The first batches of heifer replacement calves are enjoying shelter and pasture on E2 and E4. The paddock is well sheltered from the south and each group also has a further wind shelter made of straw bales. These calves will be just over 3 weeks old and will continue to be fed OAD with milk and have ad lib meal (as they have been from day one). A total of 80 calves are now out on the paddock.
26. The growth rate on the heifer block remains below the current needs of the heifers. A few more bales of silage will be fed and by then we hope that the growth rate will be ahead of the increasing demand these heifers will have as they approach mating.
27. Recent dung samples for parasite eggs indicated levels below that needing a worm drench treatment.
28. All the cows are getting Mag Oxide spread on the pasture at 100 gm /cow/day. Mag Chloride is also going through the water supply at 40 gm /cow/day and will also increase. The milkers are also getting 100gm /cow/day of lime flour dusted on the pasture. So far we have had only 5 cases of milk fever and each of these was mild and back on their feet immediately after treatment.
29. We are currently recording all the areas of pasture damaged during winter and early spring and will sow pasture seed onto these areas in the first week of September.

The next WEEKLY farm walk is on **TUESDAY 21st August 2007 9.00am.**

Management Group

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

Lincoln University Dairy Farm - Farm Walk notes

Tuesday 7th August 2007

Critical issues for the short term

1. Make sure all mobs clean their breaks and do not do pasture damage in wet weather.
2. **Back fence mobs on grass.**
3. **Make sure all cows are getting MgO dusted.**
4. **Stick to First Round Planner**

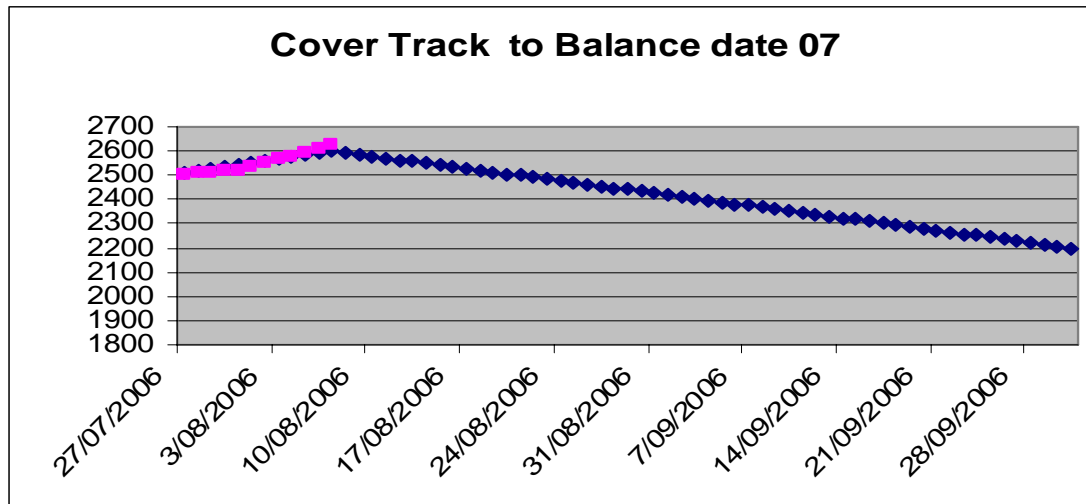
Summary of Key Factors affecting Grazing Management & Animal Performance

5. SOIL TEMPS have been up most of the week but was down to 6.5 ° C this morning.
6. PASTURE GROWTH was 29 kg DM/ha (last week 18) on the milking platform, 42.9 on the East Block (all winter active ryegrass) and 34 kg DM/day on the heifer grazing block. These growth rates reflect the warmer weather this week. We have also had another 25mm of rain.
7. We now have 259 calved cows which is 37% of the wintered cows.
8. For our First Round planner of 60 days starting 24 July includes the milking platform area plus the 18 ha East block.

Week	Date (start of week)	Milking cows (Avg)	Area grazed for week by milkers	Average Dry cows (home)	Area grazed for week by dry cows	Total area used for week
1	24 Jul	157	2.2	118	1.7	3.9
2	31 Jul	267	4.5	493	4.1	8.6
3	7 Aug	377	9.3	383	5.9	14.2
4	14 Aug	457	14.6	288	5	19.6
5	21 Aug	517	17	218	3.8	20.8
6	28 Aug	567	19	163	2.9	21.9
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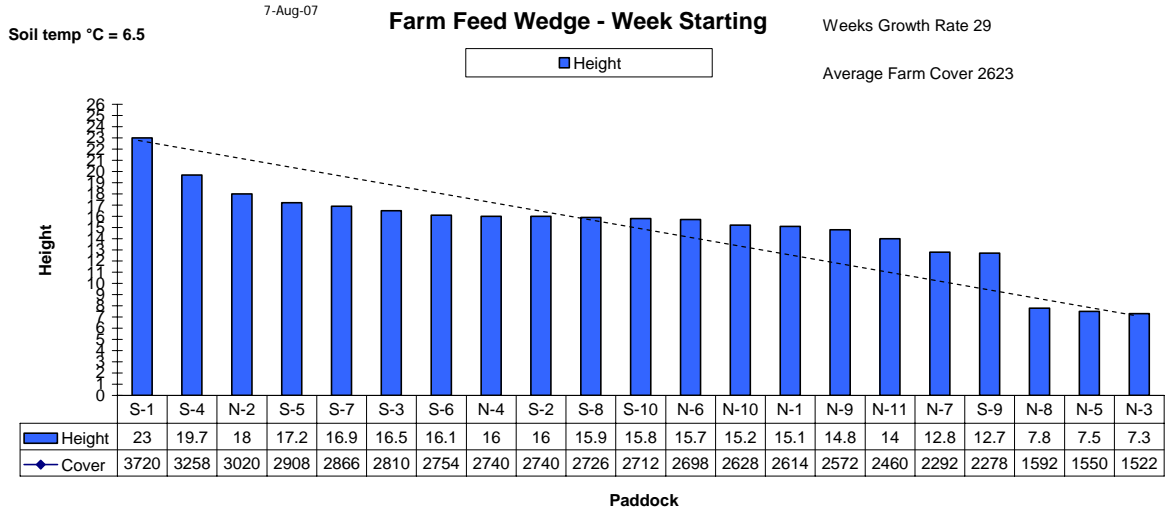
9. In week 1 we used exactly the 3.9ha in the plan. This week the total area of pasture used by all mobs (dry and calved cows) was 7 ha, an average of 1 ha/day or 1/179th of the farm /day. This was 1.6ha less than the area allowed for last week. We have been able to do this by feeding out silage while ground conditions have been good. This “extra” 1.6 ha that we did not use this week will allow us to increase the pasture area on a wet day or to cover any other reason we can not feed silage on a particular day.
10. This coming week we will be using up to 14.2ha of pasture plus silage to feed all our cows.
11. The springers and dry cows have been getting 5 kg DM grass plus 3.3 kg DM silage but we will increase this to 9 kg DM grass and no silage.

12. AVERAGE PASTURE COVER has risen from 2521 kg DM/ha to 2623 kg DM/ha. This is just above target for this week



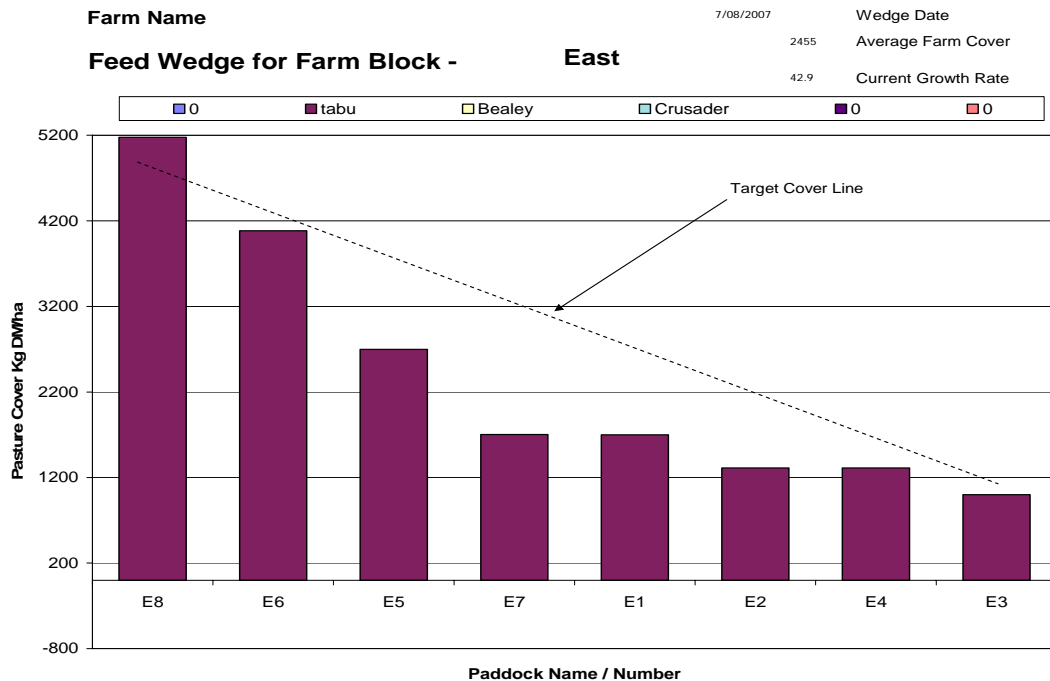
13. We are on/off grazing and back fencing all mobs to prevent pugging damage. On days when the ground is dry we are feeding out silage to the calved cows to limit the amount of grass allocated. We are targeting an intake of 13 kg DM /cow /day (most of the calved cows are heifers) for this coming week. On average this was made up of 10 kg DM of grass plus 3 kg silage /cow/day and will be reviewed later in the week.
14. The calved cows (colostrum and milkers are getting milked OAD. This will change to TAD milking later this week when about half of the herd will have calved. Some of the heifers have now been calved three weeks and this is as long as we are happy to have them on OAD. Trial work and farmer experience shows that a short period of OAD milking at the start of the season has no effect on peak yields or annual production.
15. The colostrum cows will continue to be milked OAD as do any lame cows and also the mastitis cows.
16. Mastitis cows are treated with antibiotics requiring 24hrs between doses. Any heifers with mastitis are also given oxytocin if required to get them to milk out. Cows with one infected quarter are treated with intra-mammary infusions but all heifers and cows with 2 or more infected quarters get intra-muscular antibiotic. With-holding periods have been extended because of the OAD milking.
17. We are feeding silage now to reduce grass usage at a time when we still have plenty of time in the day for this extra job, ground conditions are dry, and the amount of silage is small. Our aim is to be back to all grass within a few weeks. The need to feed silage has occurred because cows have had to come back from winter grazing earlier than expected.
18. We have updated our feed budgets with current pasture cover and number of cows calved and replacing average growth rates for August and September with actuals as each week passes. Our feed budget now looks healthy and suggests that we will be able to back out silage sooner than previously planned.

19. This weeks feed wedge



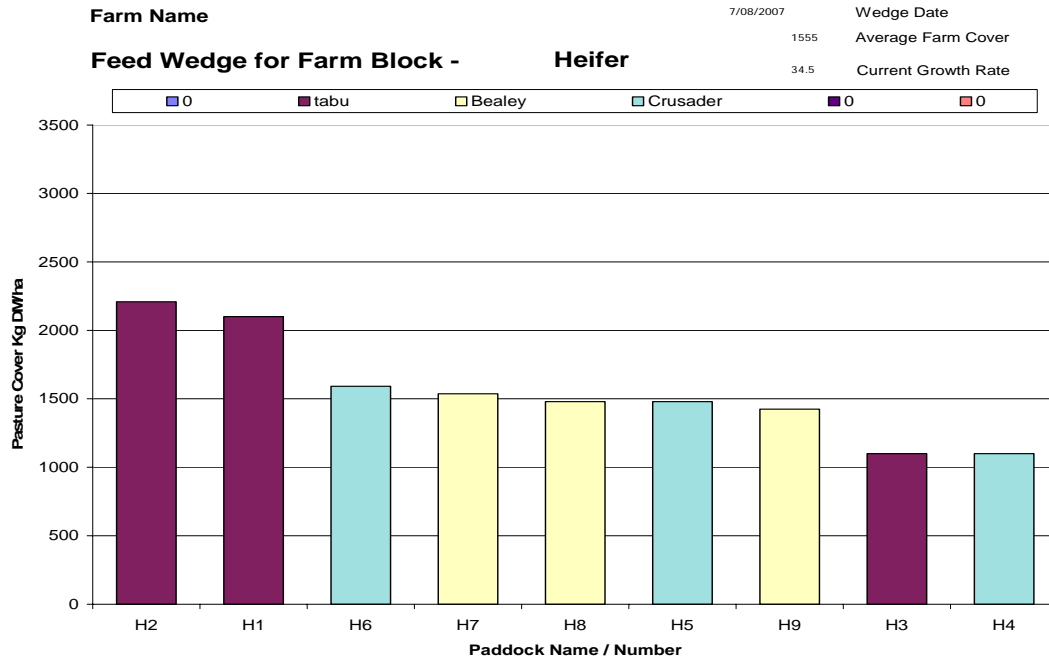
20. Our average pasture cover is right on target but the wedge is not ideal and will take some manipulation to make it even by balance date. Paddocks S9, N7, S4 and N4 are partly grazed. We are alternating between wet and drier paddocks as weather conditions require. Most of our soils are dry and firm with the only issue is when it is raining and the day after.

21. Our first application of 25 kg N/ha fertilizer has been applied to just over a third of the farm covering those paddocks with covers between 1900 and 2300 kg DM/ha. We will follow the grazing cows with an application of 40 kg N/ha.



22. The East block cover has dropped from 2573 kg DM/ha last week to 2455 this week despite a growth rate of 43 (16 last week). All the dry cows are now home from their winter grazing and they are currently grazing E5. We will get another week out of E8 and E6 before this mob will also be moved to the milking platform.

23. The paddocks grazed in June now have about 1500 kg DM re-growth which will be just perfect for the first batch of 21 heifer calves when they come out of their pen today. These calves will be just over 3 weeks old and will continue to be fed OAD with milk and have ad lib meal (as they have been from day one) plus grass. Another 21 calves will go out later this week. The paddock is well sheltered from the south and each group also has a further wind shelter made of straw bales.



24. There is now finally some cover in the Tabu new grass paddocks in the heifer block. H3 is the driest paddock and we have grazed this with the yearling heifers. We will be restricting grass and feeding silage. About 50% of their diet will be silage at this stage. As grass growth improves we will reduce silage.

25. Once the growth rate averages 35 on this block it will be growing enough grass to feed the yearlings without silage.

26. All the cows are getting Mag Oxide spread on the pasture at 100 gm /cow/day. Mag Chloride is also going through the water supply at 40 gm /cow/day and will also increase. The milkers are also getting 100gm /cow/day of lime flour dusted on the pasture. So far we have had only 3 cases of milk fever and each of these was mild and back on there feet immediately after treatment.

The next WEEKLY farm walk is on **TUESDAY 14th August 2007 9.00am.**

Management Group

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