



Focus Day
WALLACETOWN
Community Centre

Information Handout

16th July 2009

For further information visit: www.siddc.org.nz [Sthld Demo Farm]

Partnering with:



Research & Extension support from:



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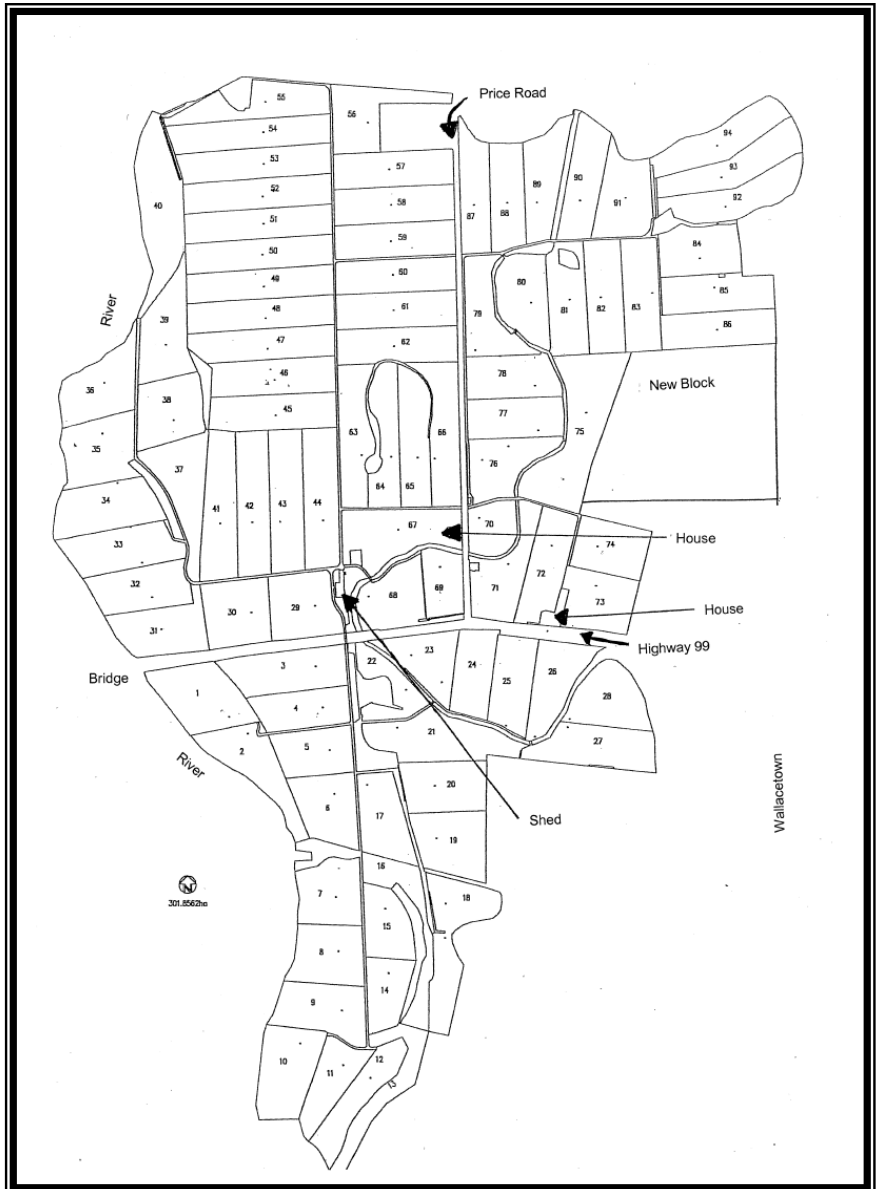


105 Wallacetown-Riverton Highway

Partnering with:



Research & Extension support from:



STAFF

Barry Bethune - Farm Manager
Sherwyn Calos - 2 IC
Harry Ficks – Farm Assistant
Shaun Bethune - Farm Assistant

HAZARDS NOTIFICATION

1. Children are the responsibility of their parent or guardian
2. Normal hazards associated with a dairy farm
3. Other vehicle traffic on farm roads and races
4. Crossing public roads, including busy State Highway

For further detail visit the SIDDC website

www.siddc.org.nz

'Sthld Demo Farm'

re information on the Farm Walk Notes, Weekly Data, Production graphs, Monitor Farm Weekly Summaries etc.

Please follow instructions given by event organisers or farm staff

VISION STATEMENT

Economical, social and environmental sustainable solutions for the Southern South Island dairy farming community.

KEY OBJECTIVES

1. Economic sustainability [profit] of Southern South Island dairying.
2. Environmental sustainability [land, water, animals] of Southern South Island dairying.
3. Social sustainability [labour] of Southern South Island Dairying.
4. To provide a central focal point for the dissemination of information to assist farmers to meet the challenges going into the future.

INTRODUCTION

The 295 hectare property was leased by Southland Demonstration Farm Limited, controlled by the Southland Demonstration Dairy Farm Trust, on 1st June 2007, to operate as a commercial demonstration farm which provides a focal point for the dissemination of information to Southern South Island dairy farmers.

The milking platform is 254 ha, and the property runs 750 cows. Around 35-40 hectares of brassicas are grown on the property for winter feed. The property supplies Fonterra's Edendale Factory targeting annual production of 335,000 kg/MS [1300 kgMS/ha].

CLIMATE

	Spring	Summer	Autumn	Winter	Annual
Mean Annual Maximum Temperature (°C)	14	18	15	10	14
Mean Annual Minimum Temperature (°C)	5	9	5	1	5
Mean daily temperature (°C)	10	13	10	5	10
Annual rainfall – 2006/07 season	Sep/Oct/Nov 99/77/139	Dec/Jan/Feb 67/80/36	Mar/Apr/May 21/83/54	Jun/Jul/Aug 132/76/72	1036

HERD DETAILS

Breeding Worth: 116

Production Worth: 121

Genemark DNA for the last 3 years.

MATING PROGRAMME

Cows AI for 6 weeks followed by 5 weeks with Hereford bulls. Heifers all AI to Friesian bull for 2 weeks and run with Jersey bulls. Calving starts 10 August.

SOIL

Soil Types	% Farm
Makarewa - Heavy poorly drained gley soil	42.0%
Makarewa moderately deep	8.0%
Mataura - Recent flood plain soil, Silty - Well drained	19.0%
Tomoporakau - Poorly drained silt loam prone to water logging	16.5%
Northope - Imperfectly drained silt loam, variations in topsoil	13.0%
Edendale - Deep well drained Soil, Silt Loam	1.0%
Gore – well drained alluvium base, Silt Loam topsoil	0.5%

SOIL TEST RESULTS

Date	pH	P	K	Sulphate S	Ca	Mg	Na	Organic S	TBK
June 2007	6.1	30	7	8	10	23	13	6.5	1.8

NITROGEN USE

Current Nitrogen Use: approximately 200 kgN/ha/year.

Southland Demonstration Dairy Farm Trust

Southland Demonstration Farm Business Advisory Group

David Dodunski	Director, Farmer, Isla Bank
Lloyd McCallum	Director, Farmer, Wilsons Crossing
Ivan Lines	Director, Farm Consultant, Invercargill
Abe de Wolde	Director, Farmer, Winton
Matt Hart	Farm Manager
Stephen Brock	Farm Owner
Gene Marsh	Farmer, Dipton
Robert Bruin	Farmer, Otautau
Ron Pellow	Executive Director, SIDDC
Allan Maxwell	SIDE Representative
Steve Dixon	Ravensdown
Vaughan Templeton	Telford
Peter Moynihan	Westpac
Wayne Nichol	Wrightson Seed
Jack Ballam	LIC
Jim Risk	Environment Southland

Southland Demonstration Farm Limited

Directors:

David Dodunski	Isla Bank
Lloyd McCallum	Wilsons Crossing
Abe de Wolde	Winton
Ivan Lines	Invercargill

Trustees:

David Dodunski	Isla Bank
Lloyd McCallum	Wilsons Crossing
Abe de Wolde	Winton
Gene Marsh	Dipton
Alistair Megaw	Tapanui
John Lang	Wreys Bush

Southland Demonstration Farm Management Team

Chris Herud	Farm Supervisor
Barry Bethune	Farm Manager
Sharn Edwards	DairyNZ CO
Desiree Moseley	DairyNZ CO

Southland Demonstration Farm Staff

Barry Bethune	Farm Manager
Sherwyn Calos	2 IC
Harry Ficks	Farm Assistant
Shaun Bethune	Farm Assistant

Southern South Island Monitor Farm Project

The Southern South Island has seen significant growth in dairying over the last 5-10 years. Rapid expansion has highlighted the scarcity of basic information on pasture growth and quality under dairy farming systems.

This project, 'Future proofing Southland dairy farm systems' (SFF 07/155), aims to generate pasture growth and quality and soil temperature information on four (4) commercial dairy farms in Southland/West Otago and on the Southland Demonstration Farm over the next three (3) years. The project is funded by the MAF Sustainable Farming Fund, DairyNZ, SIDE and Ravensdown's ARL Lab.

Each week a weekly summary of information from the following regions is posted on the SIDDC website (www.siddc.org.nz, [Monitor Farms](#))

1. Coastal: Southland Demonstration Farm, 254 ha, 750 cows at Wallacetown
2. Eastern: K & D Hall, 146 ha, 430 cows at Edendale
3. Central: G & J van der Poel, 140 ha, 415 cows at Dunearn
4. Northern: A & I Frei, 137 ha, 290 cows at Riversdale
5. West Otago: D & M Goble, 136 ha, 340 cows at Tapanui

The monitor farms were chosen to have representative soil types, growing degree days and topography for their area. Each week the farms are walked and the pasture mass assessed in every paddock using the rising plate meter.

This information is used to generate pasture growth rates and a feed wedge for the farm. At the same time the soil temperature is recorded and every two (2) weeks pasture samples are collected for composition analysis.

The website provides a table that includes production per cow and per ha, supplements being fed, round length, average pasture cover, stocking rate, soil temperature, pasture growth rates and general comments.

Both the growth rate information and soil temperature data for each farm are presented in a graph form so people can quickly see trends and variations in both.



SDF Farm Walk Notes

Wednesday, 15th July 2009

Total Effective Ha: 295ha
Winter Crop Ha: 31ha
Area in Grass Ha: 264ha
Cows in Milk: 0 cows

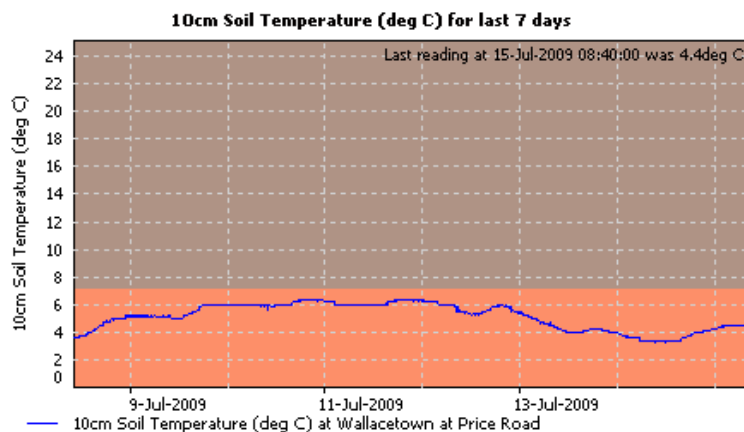
Critical issues for the short term

1. **Wintering cows**
2. **Farm Maintenance**
3. **Winter/Spring Feed Budget**
4. **Financial Budget and Cash flow**
5. **Staff training**

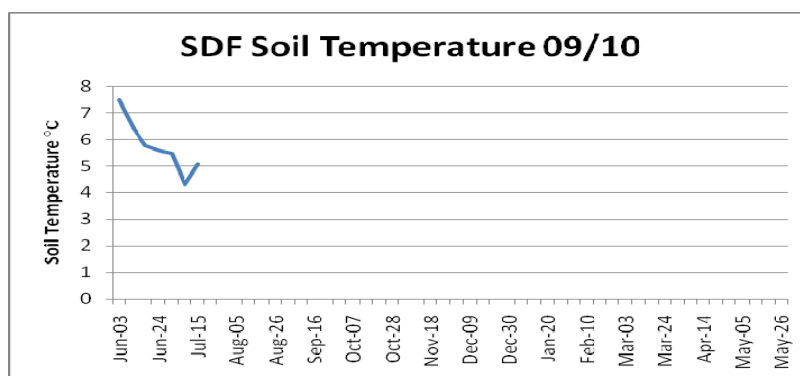
Summary of Key Factors affecting Grazing Management & Animal Performance

6. Soil temperatures at 9 am have averaged 5.07°C this week.

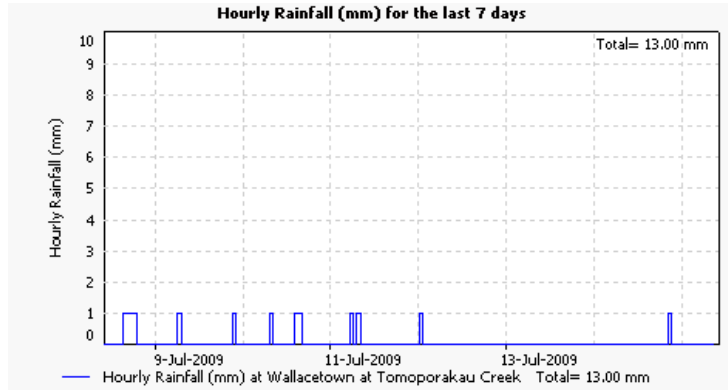
The graph below shows how the soil temperature has been tracking for the last week. This reflects the cold, frosty conditions we have been experiencing. Average 9.00am temperatures this week are 0.77°C higher than last week's 4.3°C.



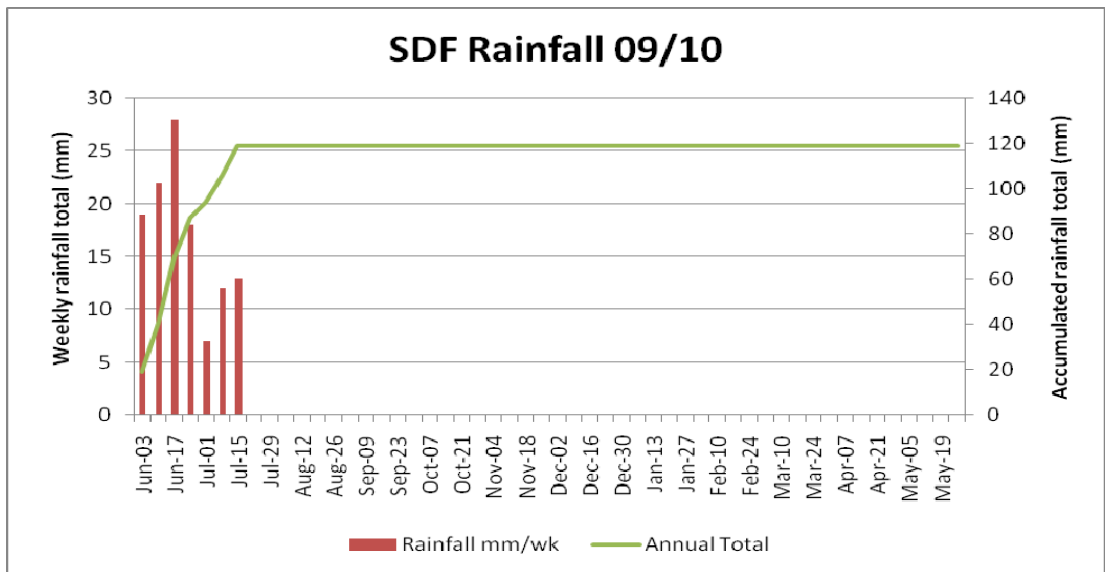
7. The graph below shows how the average weekly 9am (10cm) soil temperature is tracking throughout the season.



8. The farm had a total of 13mm rain last week. The graph below shows the distribution.

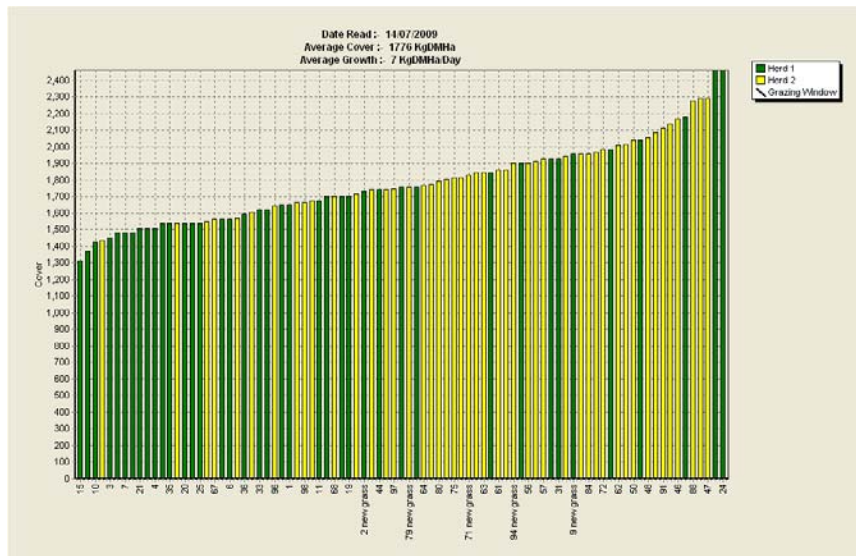


9. Following is a graph showing weekly rainfall and accumulated total for the season. The date represents total the week ending.



10. The 14th July pasture feed wedge is below. The green bars are paddocks grazed by herd 1; the yellow bars are grazed by herd 2.

11. Pasture growth this week was 7 kg DM/ha/day.



12. Average pasture cover is 1776 kg DM/ha.
The target line has been taken off as we no longer have cows on pasture.

13. The silage stack is closed.
14. 80ha has had an autumn application of Eco-N. The next application of Eco-N is planned for late July or early August.
15. 810 cows are being wintered.
 - 200 Cows in Balfour
 - 398 Cows on farm
 - 212 R2 yr old heifers come home from Mossburn Wed 15/7/09
16. PGG Wrightson did dry matter assessments and weighed our winter crops on Monday 4th May. A second assessment of yield has been done by PGG Wrightson on the 8th July and the data is below in Table 1.

Paddock				Dry Matter %		Yield (tDM/ha) 4 May			Yield Update
No	Area	Crop	Cultivar	Leaf	Bulb	Leaf	Bulb	Total	(tDM) 8 July
70	1.78	Swede	Keystone	14	11	2.7	9.1	11.8	
17	2.76	Swede/Kale		12	9	3.8	4.4	8.3	
5	2.51	Swede	Aparima	11	11	4.8	9.0	13.7	
58	3.04	Swede	Aparima	13	10	4.0	9.9	13.9	
82	2.93	Swede	Aparima	14	11	4.3	12.0	16.3	
89	2.88	Swede	Aparima	12	10	4.7	10.0	14.7	
78	2.77	Swede	Keystone	13	10	3.0	10.2	13.2	14.0
77	2.76	Fodder Beet	Colosse	12	20	5.4	13.1	18.6	21.4
51	3.23	Kale	Regal	11				11.8	
93	3.15	Kale	Soverign	13				13.8	15.7
55	3.08	Kale	Soverign	15				14.9	

Table 2. Feed Analysis

	93 Kale	51 Kale	58 Swede		78 Swede		77 Fodder Beet	
			Leaf	Bulb	Leaf	Bulb	Leaf	Bulb
Nitrogen %	2.3	3.2	3.8	1.1	3.1	1.1	2.5	1.0
DM%	13.2	9.7	10.4	10	12.2	10.0	11.5	18.6
CP%	16.9	21.8	25.6	7.6	21.2	8.2	16.9	7.0
ADF%	18.5	22.6	21	15.7	19.3	14.3	13.3	6.2
NDF%	24.1	27	25.4	17.4	22.9	14.4	26.5	12.5
ASH	13.6	14.7	18.3	6.5	14	5.8	12.6	4.6
SS	19.2	14.2	8.7	57	15.9	56.0	32.0	66.2
Starch	<0.5	<0.5	<0.5	1	0.7	0.9	<0.5	<0.5
DOMD	75.5	68.3	68.5	89.1	74.4	91.2	77.9	89.8
MJME	12	10.9	11	14.3	11.9	14.6	12.5	14.4

17. Feed allocated to cows on crop was originally 14kgDM/cow/day made up of 10kg of crop and 4 kg baleage offered. The cows have been unable to eat all of the 10 kg/cow of swedes allocated and swede portion of their diet has been cut back accordingly. We estimate that the cows are offered 7-8 kg DM of swedes and 4.5 kg baleage. The fence is being moved 2x each day to minimise wastage.
18. We have altered the feeding level of the cows on the fodder beet as they were finished their daily baleage (4kg) and crop allowance (10kg) by lunchtime. We have cut the fodder beet back to 7.4kgDM/cow/day and have offered them an additional bale of baleage to each mob taking it up to 7.2kgDM/cow/day (total 14.6kgDM/cow/day). Under this current management they still have baleage left in the afternoon when they are offered their second break of fodder beet and have eaten all of the feed by the morning.

19. The fodder beet crop now has approximately 2 days of feeding left so has longer than originally forecast however the additional baleage when valued at 25c/kg DM adds an additional \$3.31/cow/week to the grazing cost. We have had adequate baleage available to meet the demand. We are working out the new cost of growing the fodder beet based on the higher yield and will report back the cost per kg DM to grow.
20. 80ha has had an autumn application of Eco-n. The second application will be applied before the end of July.
21. The 398 cows on farm are in 5 mobs.
- 2 mobs of 50 on fodder beet
 - 4 mobs averaging 75cows per mob on swedes
 - 212 R2yr olds on Kale
 - 100 cows on Fodder Beet onto Kale when the Fodder Beet finishes
22. On 10th June our staff condition scored the cows on the fodder beet (paddock 77) and one mob being fed swedes (paddock 78). The cows which went into each herd were chosen at random at drying off. After 10 days on crop the fodder beet cows came back at a 4.4BCS and the Swede mob was 4.2BCS. We had a range in both herds from 3-6. The table below shows the results:

Condition score – Fodder Beet	3	3.5	4	4.5	5	5.5	6
Number of cows	1	3	6	13	4	0	2
Percentage of sample group	3.4%	10.3%	20.7%	44.8%	13.8%	0%	6.9%

Condition score – Swedes	3	3.5	4	4.5	5	5.5	6
Number of cows	2	11	12	12	6	3	1
Percentage of sample group	4.3%	23.4%	25.5%	25.5%	12.8%	6.4%	2.1%

23. On 29th June our staff again conditioned scored the cows being fed fodder beet and baleage (paddock 77) as well as the cows in the next paddock (paddock78) being fed swedes and baleage. (See above for feeding levels and composition – 16 and 17.) The fodder beet cows were scored at 4.6BCS, an increase of 0.2BCS while the swede fed cows were scored at 4.24BCS an increase of only 0.04. The tables below show the results.

Condition score – Fodder Beet	3	3.5	4	4.5	5	5.5	6
Number of cows	0	1	39	41	36	13	1
Percentage of sample group	0%	0.8%	29.8%	31.3%	27.5%	9.9%	0.8%

Condition score – Swedes	3	3.5	4	4.5	5	5.5	6
Number of cows	0	11	33	21	13	1	0
Percentage of sample group	0%	13.9%	41.7%	26.5%	16.4%	1.3%	0%

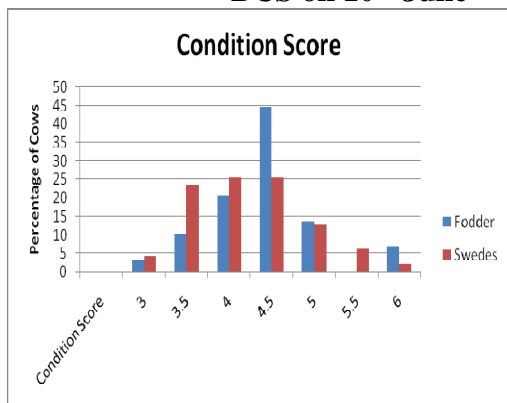
24. On 14th July our staff condition scored the same cows. The Fodder beet cows scored 5.0BSC, an increase of 0.4BSC since 29th June while the swede fed cows scored 4.86 BSC, an increase of 0.42BSC. The tables below show the results.

Condition score – Fodder Beet	3	3.5	4	4.5	5	5.5	6
Number of cows	0	0	0	16	40	13	2
Percentage of sample group	0%	0%	0%	22.5%	56.3%	18.3%	2.8%

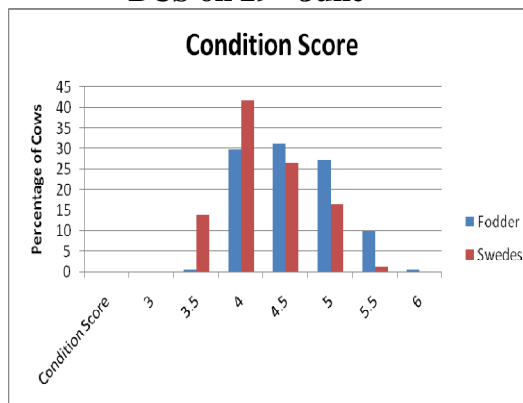
Condition score – Swedes	3	3.5	4	4.5	5	5.5	6
Number of cows	0	0	7	21	42	9	2
Percentage of sample group	0%	0%	8.6%	25.9%	51.8%	11.1%	2.5%

A comparison of the graphs below show the % of cow cows in each BCS group and the condition gained on fodder beet and swedes.

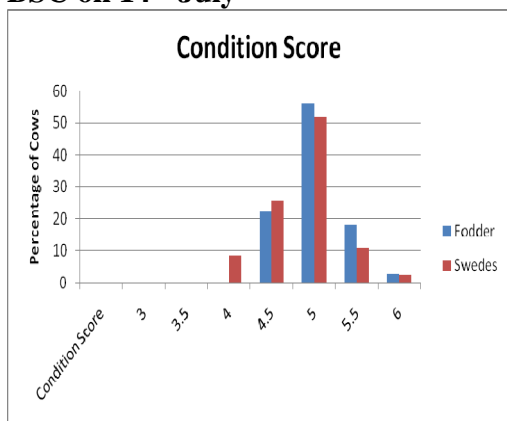
BCS on 10th June



BCS on 29th June



BSC on 14th July



25. The graphs above show cows in both herds moving out of the lower condition groups as they put on condition with proportionally more of the fodder beet fed cows in the higher condition score groups.
26. Since drying off 4 cows have aborted on farm. The post mortem on one aborted calf showed a moderate growth of *Aspergillus* species after 6 days. This confirms an *Aspergillus* abortion. *Aspergillus* is a fungi that occurs in fermented feeds and is a cause of sporadic bovine abortion. These abortions occur from 4 months through to term and occur most often in winter. The fungi enter the cow through the mouth and lungs and travel in the blood to the placenta. The cow may get sick from fungal pneumonia and may die as a result. In our situation *Aspergillus* abortions have been caused by mould in baleage on crop.

Future Management Planning

1. Updating financial budget and cash flow for 2009/2010 season
2. Updating procedures manuals etc
3. Winter farm maintenance – gravel around troughs, power, water issues, race maintenance and fencing.

The WEEKLY farm walk will be on **Wednesday, 22nd July 2009.**

On behalf of the **Management Group** Chris Herud (Farm Supervisor), Barry Bethune (Farm Manager), Sharn Edwards, Desiree Moseley (COs DairyNZ).

Weekly Data

SDF Budget

2008 Dairy Farm Statistics

WOULD YOU LIKE TO WORK IN TOWN?

(by *Graham Fletcher, Rural Adviser, McIntyre Dick & Partners Limited*)

The question often asked by farmers is ...

“Is my level of cash drawings reasonable?”

Let’s look at it this way. If I were living on a salary in town, what would I have available for cash drawings?

My commitments for my family might look like this –

	Annual Amount
Newspaper	200
Health insurance	1,500
Home loan/rent	12,000
Rates	2,000
Insurance – home and contents	1,200
Household repairs	1,000
Life assurance	1,800
Superannuation/savings	2,500
Car expenses –	
Fuel	2,000
Service	800
Capital	7,200
	----- 10,000

Amount needed before cash drawings	\$32,200 (whew)
Let’s say I earn	55,000 a year
Tax is	11,200

Net	43,800
Costs above are	32,200

What I have left for cash drawings is \$11,600 less than \$1,000 per month.

You might like to do this with your own information.

If you would like to have cash drawings of \$4,000 a month then if you live in town a salary of \$113,000 is needed.

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Brad Phillips
Karen Withington

Consultants
Lindsay McIntyre
Alex Hunter - Rural



On the farm, drawings are more than the cash taken out for living. They are all your domestic expenses.

When looking at your next farm budget, consider working backwards.

A presentation at a Dexel roadshow suggested –

Look at the surplus you expect first, then say *“if this is the money available how do we use it?”* An example of where your surplus goes could be:-

- Drawings
- Debt servicing – interest and principal
- Investment needs
- Tax
- Capital expenditure/part replacement.

Then ask the hard questions.

- What do I wish my business to deliver?
- What operating surplus do I want?
- What can I afford to spend on farm working expenses?
- How do I do things better to achieve my production targets?

One of my favourite sayings is *“no-one has a first mortgage on ideas”*. Look at your methods and compare them with the best. Then do something.