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To Advance South
Island Dairying















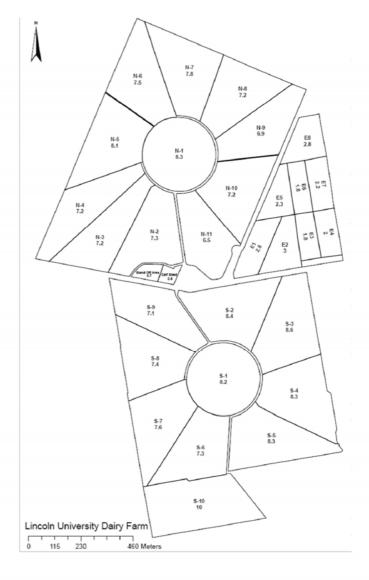
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# Lincoln University Dairy Farm Focus Day 25 February 2010



# Staff

Peter Hancox – Farm Manager Andre Scholtz – Herd Manager Brad Turner – Farm Assistant Kenny Oluvoyede – Farm Assistant

# **LUDF 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
- 5. Underpass may be slippery

#### Introduction

The 186 hectare irrigated property, of which 159 hectares is the milking platform, is a former university sheep farm. The spray irrigation system includes two centre pivots, small hand shifted lateral sprinklers, and k-lines. The different soil types on the farm represent most of the common soil types in Canterbury.

#### **Key objectives**

- 1. To develop and demonstrate world-best practice in dairy farm systems and to transfer them to dairy farms throughout the South Island.
- 2. To operate as a joint development centre with SIDDC partners, where the practical application of new technologies can be developed and refined.
- 3. To use the best environmental monitoring systems to achieve best management practices under irrigation, which ensures that the industry's annual profit from productivity target is achieved in a sustainable way and that the wider environment is protected.
- 4. To continue the environmental monitoring programme and demonstrate technologies that will ensure that the 3-year rolling average concentration on nitrate-N in drainage water from below the plant root zone remains below the critical value [16 mg N/L] that is specified in ECan's proposed regional rule as requiring reduction [Rule WQL18].
- 5. To operate an efficient and well organised business unit.
- 6. To provide a commercial return exceeding the average weighted cost of capital on annual capital evaluations to Lincoln University.
- 7. To create and maintain an effective team environment at policy, management and operational levels.
- 8. To assist Lincoln University to attract top quality domestic and international students into the New Zealand dairy industry.
- 9. To actively seek labour productivity gains through adoption of technologies and practices that reduce labour requirements or make the work environment more satisfying.
- 10. To use Environmental Best Practices [including 'eco-n' nitrification inhibitors] to protect the environment, while enhancing profitability.

#### Specific objectives for the season 2009/10

- 1. To deliver a Dairy Operating Profit of \$2,022/ha and Return on Dairy Assets of approximately 4.8% from a \$4.55 payout with budgeted milksolids production of 277,630 kg with Cash Farm Working Expenses of \$3.23/kgMS.
- 2. To improve water use efficiency for better integrating the technologies currently existing on the farm by ensuring useable decision making data is accessible to the farm management in a timely manner.
- 3. To increase the land area that effluent is applied to so that nutrients are better distributed and there is an increased range of contingency plan options. Also, ensure that nitrate losses are not greater on effluent areas than on non-effluent areas, and that there is no significant microbial contamination of the shallow aquifers.
- 4. To manage pastures and grazing so milkers consume / harvest as much metabolisable energy [ME] as practicable, with a target of 200 GJ/ha ME. For example, this could be achieved by consuming/harvesting 16t DM/ha with average ME 12.5.
- 5. To optimize the use of the farm automation system [Protrack] and demonstrate / document improved efficiencies and subsequent effect on the business.
- To achieve an in-calf rate of no less than 88% [i.e. 12% empty] after 12 weeks mating. i.e. 9 weeks of AB mating plus 3 of natural mating. All AB matings to result in crossbred replacements including replacements from yearlings.
- 7. To continue to document and measure LUDF's influence on changes to defined management practices on other dairy farms.
- 8. To ensure specific training is adequate and appropriate to enable staff members to contribute effectively in meeting the objectives of the farm.

#### **Ongoing research**

- The effect of fertilisers & other farm inputs on groundwater. 10 groundwater monitoring wells sunk to monitor and manage the effect of fertiliser, grazing, irrigation and effluent inputs over a variety of contrasting soil types.
- Effects of eco-n on nitrate leaching and pasture production.
- · Pasture growth rates, pests and weeds monitoring.
- The role of nutrition in lameness in Canterbury.
- Resource Inventory and Greenhouse Gas Footprint

#### Climate Farm area

Mean Annual Maximum Temperature Mean Annual Minimum Temperature Average Days of Screen Frost Mean Average Bright Sunshine Average Annual Rainfall

32 °C 4 °C 36 Days per annum 2040 Hours per annum 666 mm Milking Platform Runoff [East Block] 159 ha 14 ha

















#### Soil

Soil types

Con types				, o	a		
Free-draining shallow Deep sandy soils (Pap Imperfectly drained so Heavy, poorly-drained		5 45 30 20					
Soil test results	}						
Date	рH	Р	K	S	Ca	Mg	Na
Dec – 01	5.8	30	11	34	8	23	12
Jul – 02	5.8	31	14	35	9	22	12
Oct - 02	5.9	35	8	29	8	21	12
Jun – 03	6.1	37	12	7	9	23	9
Jun – 04	6.4	37	13	11	9	22	10
Jun – 05	6.1	35	13	10	9	22	8
Jun – 06	6.3	33	15	9	10	27	11
Jun – 07	6.3	39	16	17	10	29	13
Jun – 08	6.1	36	12.4	9	10	29	12
Jun – 09	6.1	32	11	11	9	30	9
Target Soil Test	5.8 - 6.2	30 - 40	5 – 8	10 – 12	4 – 5	20+	5 – 50
Soil Reserve K = 4.5	(Target = 0.8)	<b>– 1.2</b> )					

% Milking Platform

#### **Fertiliser history**

Date	Dressing	N	Р	K	S	Mg	Ca
Season 2001/02	J	200	168	-	130	-	94
Season 2002/03		200	45	-	2	-	90
Season 2003/04		200	45	-	64	-	46
Season 2004/05		200	46	-	47	-	57
Season 2005/06	Non-Effluent	200	48	-	76	-	107
Season 2005/06	Effluent	0	30	-	53	-	67
Season 2006/07	Non-Effluent	200	49	-	89	-	110
Season 2006/07	Effluent	0	20	-	52	-	45
Season 2007/08	Non-effluent	200	44	-	73	-	96
Season 2007/08	North Effluent	12	22	-	37	-	48
Season 2008/09	Non-Effluent	245	53	-	88	-	115
Season 2008/09	North Effluent	0	22	-	37	-	48
Season 2009/10	Non-Effluent	-	45	-	47	-	20
Season 2009/10	Effluent	-	5	-	47	-	20

#### **Pasture**

- The milking platform was sown at conversion [March 2001] in a mix of 50/50 Bronsyn/Impact ryegrasses with Aran & Sustain white clovers, and 1kg/ha of Timothy.
- Individual paddocks are monitored, & seven [7] [33% of area] have been renovated to maintain pasture performance.
  - 2 paddocks of Arrow plus Alto perennial ryegrasses (all with Kotare/Sustain white clovers & Timothy)
  - 3 paddocks of Bealey, and
  - 2 paddocks of Alto perennial ryegrasses (all with Kotare/Sustain white clovers & Timothy)
- Pasture consumption for 04/05 season calculated at 15.9t DM/ha, & for 05/06 at 16.1t DM/ha & for 06/07 at 16.4t DM/ha.

#### Irrigation and effluent system

Centre-pivots	127 ha
Long Laterals	24 ha
K-Lines	10 ha
Hard Hose Gun	14 ha
Total irrigated	175 ha
Irrigation System Capacity	5.5 mm/day
Length of basic pivot	402
Well depth	90m

#### Statistics

- A full rotation completed in 20.8 hours for 5.5 mm [at 100% of maximum speed].
- Average Annual Rainfall = 666 mm. Average irrigation input applies an additional 450 mm. Average Evapotranspiration for Lincoln is 870 mm/year.

#### Effluen

- Dairy shed effluent is held in sump capable of holding 33,000 litres and a 300,000 litre enviro saucer.
- 100 mm PVC pipe to base of North Block centre pivot, distribution through pot spray applicators.
- System being developed to also apply effluent on to the South Block and outside the pivot.

















#### Mating programme 2009

7 weeks DNA Kiwicross and DNA Friesian sires followed by 3 weeks natural mating. Aim is to retain cows that calve to the first 10 weeks of mating. Yearlings to be naturally mated starting two weeks before PSM for main herd.

#### **Herd details**

Breeding Worth (rel%) / Production Worth (rel%)
Average weight / cow (dec) – [30] cows monitored
Calving start date
Mid calving date
Mating start date
Empty rate (nil induction policy) after 10 weeks mating

119/46 137/55 490 kg 8 August 2009 17 August 2009 (9 days) 30 October 2009

19% 2008 [14% after 12 weeks 2007]

	03/04 Season	04/05 Season	05/06 Season	06/07 Season	07/08 Season	08/09 Season
Milkers - ave/max/wintered	635/644/660	649/651/675	646/651/672	/680/706	/680/704	/684/704
Total kg/MS	271,971	277,634	286,115	274,965	281,670	261138
Total kg/MS/cow	422	427	440	410	414	385
Total kg/MS/ha	1684	1719	1772	1703	1744	1645
Farm Working Expenses/kgMS	\$2.64	\$2.64	\$2.63	\$2.80	\$3.37	\$3.95
Dairy Operating Profit/ha	\$2008	\$2768	\$2357	\$3002	\$8284	\$2004
Payout [excl. levy] \$/kg	\$4.22	\$4.56	\$4.07	\$4.47	\$7.87	\$5.20
Return on Assets	5.6%	6.9%	5.5%	6.7%	14.6	4.8%

#### Stock numbers

		2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
1 July cow numbers		631	660	675	664	702	704	704	683
Max. cows milked		604	644	651	651	670	680	683	660
No. Yearlings grazed	On/Off	0/118	0/139	0/140	0/175	0/172	0/171	0/200	0/160
No. Calves grazed	On/Off	0/141	0/143	0/162	0/170	0/175	0/200	0/170	0/160
Cows wintered off	No. cows	500	520	500	500	540	546	547	
	Weeks off	8	7	8	8	8	9	7	9
Stocking rate	Cow equiv. / ha	3.75	4.0	4.0	4.0	4.2	4.2	4.3	4.15
	Kglwt/ ha	1,838	1,960	1,960	1,960	1,974	2,058	2,107	-
	Kg lwt / tDM	76	79	83	77	87	83	89	-
Supplement - fed - Purchased	[kg/cow]	550	385	300	315	266	415	342	-
- Made on dairy/platform	[kg/cow]	0	98	220	365	93	95	64	-

#### Staffing & management

Roster System - 8 days on 2 off 8 days on 3 off

Milking Times - Morning: cups on 5.00 am

- Afternoon: cups on 2.30 pm



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# **Lincoln University Dairy Farm - Seasonal Update February 2010**

# Highlights of the season to date – compared to last year:

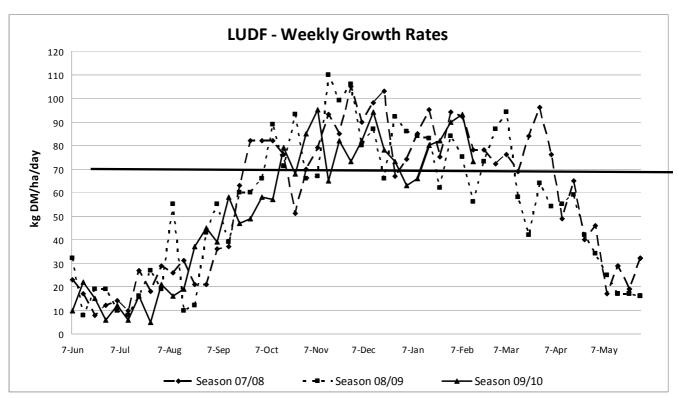
	Last Season - 2008 – 2009	This Season - 2009 – 2010
1.	Average Pasture Cover to start August above target @ 2800kgDM/ha	APC 2300kgDM/ha = 150kgDM/ha below target
2.	Soils extremely wet pre caving and throughout August and early September. Cows standing off many days and significant damage to pastures. Much heavy rolling required.	Soils and pasture conditions in August and early September exceptionally good for pasture growing and grazing with little pasture damage.
3.	First grazing round finished early due to wet conditions. 2nd round grazing conditions also quite difficult	35t DM as balage taken off the platform in mid September to enable the 1st round to finish. Easy conditions to graze to residuals and fully feed cows.
4.	Per cow milk production peaked at 1.94kg ms/cow and 8.12kg ms/ha	Peak was higher 2.09kgms/cow and 8.53kgms/ha. This was earlier and more sustained than in any previous season. See attached milk graph Factors contributing to this included the compact calving pattern, all cows calving in good condition, no silage feeding needed, very little pasture damage during the 1st round and less mastitis (more cows in the silo).
5.	683 cows peak milked from 704 wintered (-3%) Stocking rate 4.29 cows/ha	660 peak milked from 683 wintered (-3.4%) Stocking rate 4.15cows/ha
6.	1st Calvers - 162 wintered = 23% of the herd	187 wintered = 27% of the herd The additional 25 formed part of the strategy developed 3 years ago to improve calving pattern.
7.	Teat seal use prior to calving in the 1st calvers made a significant reduction in mastitis at calving in these.	Teat seal used in first calvers and half the mixed age cows. Mastitis at calving significantly reduced. (See October focus day notes – <a href="https://www.siddc.org.nz">www.siddc.org.nz</a> )
8.	Current average liveweight 474 kg	476kg
9.	8 deaths year to date	8 deaths
_		



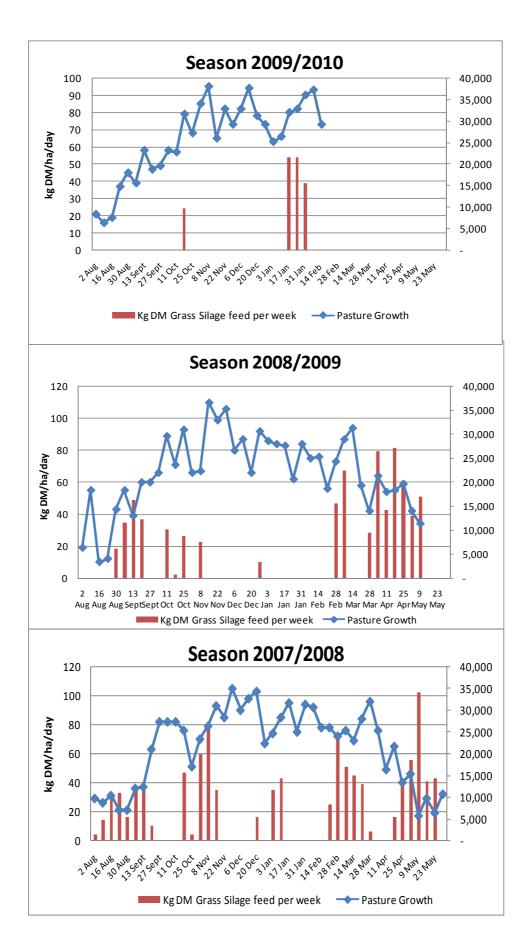
	Last Season - 2008 – 2009	This Season - 2009 – 2010
10.	Decline from milk production peak was 3% per month larger than our target	Decline during the seedhead stage for ryegrass was not quite as steep as previous seasons but continued for longer (see milk graphs)
11.	YTD Production 1230kgms/ha	1246 kgms/ha appears to be heading towards 1% below the end of season target budget of 1746kgms/ha
12.	YTD Production 288kgms/cow	300 kgms
13.	Clover root weevil present in many pastures not considered an economic problem	Clover root weevil obvious in much greater numbers. Now considered to be making a negative impact on quantity and quality of pasture.
14.	Silage used from 1st week of September as required to manage round length and residuals as per previous seasons.	No silage fed to milkers until 20th October (4 days feeding) and 3rd week of January (19 days feeding) January feed deficit was a result of a cold cloudy January and perhaps clover root weevil reducing Nitrogen availability.
15.	Silage fed to date 113kgDM/cow	105kgDM/cow
16.	Silage made on platform 277kgDM/ha	598kgDM/ha (221kgDM/ha made in September)
17.	Nitrogen used YTD 149kgN/ha	135KgN/ha
18.	Regrassing - 2 paddocks (S4 & S5) 16.6ha	2 paddocks S9 & S3 = 15.6ha
19.	Total of 160 cows (23%) were CIDR treated	No CIDR treatments used
20.	Cows judged pregnant at 6 weeks 463	526
21.	Cows judged pregnant at 10 weeks 544	Pregnant at 9 weeks 574  Factors likely to have impacted this change include: calving pattern, condition at calving, great spring conditions enabling body condition to be 4.5 at start of mating. BVD vaccination may have helped also.
22.	Fonterra announced expectation of \$7.00/kgms (as used in our July 08 budget). By February 09 this had dropped to \$5.10 with the possibility of further reduction. Emphasis at the Focus Day on strategies to preserve as much profit as possible.	\$4.55 expectation prior to the milking season has changed to the currently announced forecast of \$6.10/kgms. Our attitude is to change very little about the farming plan for the year and take the profit. An additional paddock has been regrassed.



	Last Season - 2008 – 2009	This Season - 2009 - 2010
23.	Cost of production end of Jan YTD \$735,841	YTD \$675,398 (\$60,443 less than at this date last year) But we have spent \$17,444 more YTD compared to budget. Mostly on feed in early and mid July when pasture cover on the platform was significantly lower than target. If we contain spending to the budget for the remainder of the year and produce 275,000kgms the cost of production will be \$3.33/kgms. We are aiming for \$3.30
Infras	structure	
24.	Native tree planting in 1.07ha completed and growing well	Maintenance of plantings
25.	New silage storage area completed and in use. It has much safer entrance/exit ways and is closer to where silage is fed	Additional calf shed completed in November
26.	Additional office space constructed and appreciated by all users and visitors	Additional dairy effluent storage 280cubic metres and nine low application rate sprinklers with a smart hydrant added to irrigate a further 30ha (will share our experience and judgement of this at the May Focus Day)

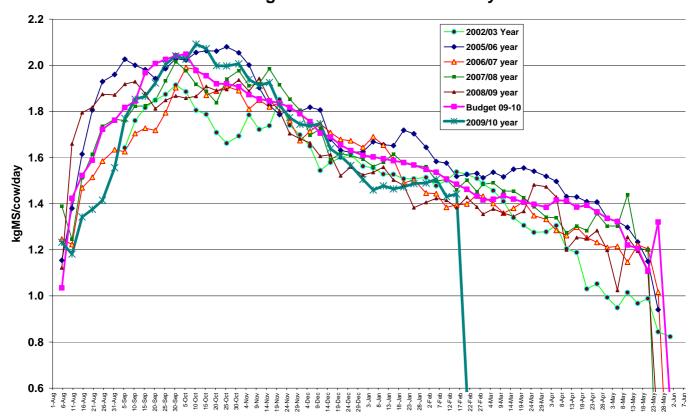




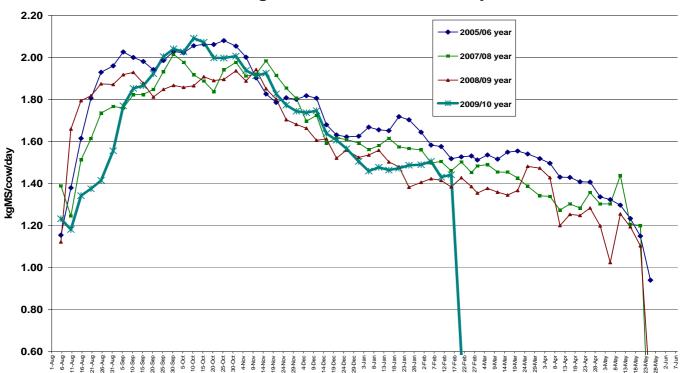




# LUDF Kg MS Production / Cow / Day

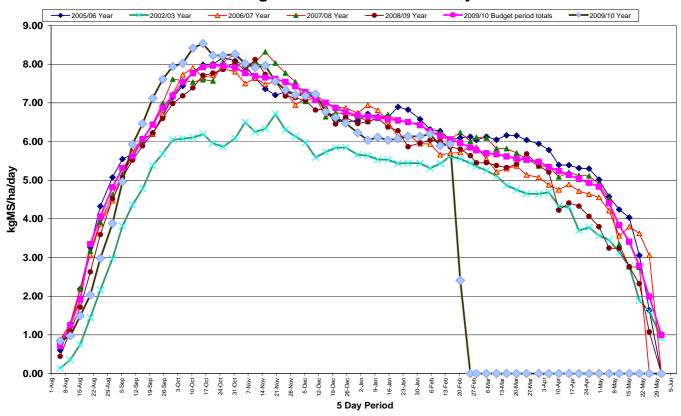


# LUDF Kg MS Production / Cow / Day

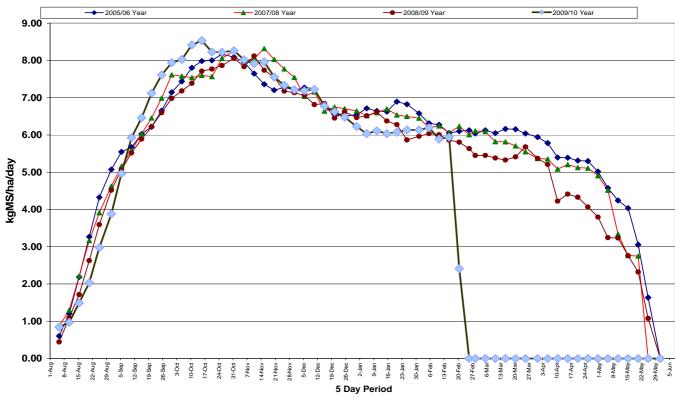




# LUDF - kg MS Production / Ha / Day



#### LUDF - kg MS Production / Ha / Day







# **Variance Report** for

**LUDF** 

Compare Actuals Actual(2010) With Budget - Main (2009) DateRange: Jun To Feb

**GST Exclusive** 

	Actuals 2010	Budget 2009	Variance	Actuals 2010 as a % of Budget 2009	
	\$ Qty	\$ Qty	\$ Qty	\$ Qty	
INCOME					
Cattle Sales (Sales)	32,371	29,096	3,275	111 %	
NCOME	32,371	29,096	3,275	111 %	
MILK					
Milk Sales	746,173	1,491,237	(745,064)	50 %	
MILK	746,173	1,491,237	(745,064)	50 %	
NET INCOME	778,544	1,520,333	(741,789)	51 %	
ARM EXPENSES					
Administration	(11,444)	(20,699)	9,255	55 %	
Animal Health	(34,348)	(30,741)	(3,607)	112 %	
Breeding Expenses	(28,784)	(44,015)	15,231	65 %	
Electricity	(37,796)	(58,919)	21,123	64 %	
Feed	(252,926)	(253,779)	853	100 %	
Fertiliser	(71,255)	(114,470)	43,215	62 %	
Regrassing	(14,700)	(14,088)	(612)	104 %	
Rates & Insurance	(15,864)	(14,883)	(981)	107 %	
Repairs & Maint	(46,753)	(60,607)	13,854	77 %	
Shed Expenses	(4,832)	(12,187)	7,355	40 %	
Vehicle Expenses	(15,268)	(18,620)	3,352	82 %	
Wages & Employment	(144,532)	(190,977)	46,445	76 %	
Weed & Pest	(440)	(1,500)	1,060	29 %	
FREIGHT	(4,441)	(672)	(3,769)	661 %	
FARM EXPENSES	(683,382)	(836,157)	152,775	82 %	
CATTLE PURCHASES					
Cattle Purchases	(20,800)		(20,800)	0 %	
CATTLE PURCHASES	(20,800)		(20,800)	0 %	
TRADING SURPLUS	74,362	684,176	(609,814)	11 %	
FIN YEAR SURPLUS	74,362	684,176	(609,814)	11 %	
GST		45.00			
GST		(24)	24	0 %	
GST		(24)	24	0 %	
INCOME (EXPENSE)	\$ 74,362	\$ 684,152	(\$ 609,790)	11 %	

Database : LU Dairy Farm Cashmanager (3.7.f)

# Lincoln University Dairy Farm - Farm Walk notes

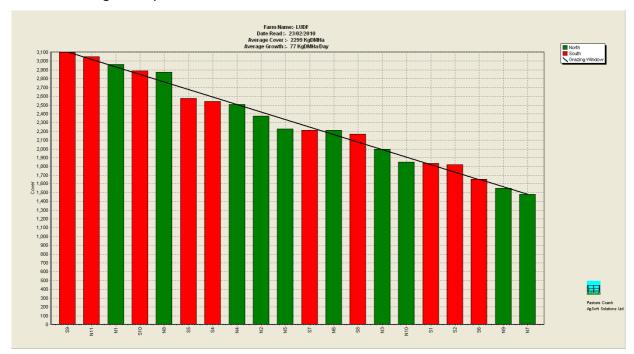
Tuesday, 23<sup>rd</sup> February 2010

#### Critical issues for the short term

- 1. Maintain pasture quality by regular monitoring and making necessary changes
- 2. Keep grazing residuals to the desired 7 clicks
- 3. Closely observe milking cows for mastitis
- 4. Monitor cow condition to identify light cows that may need differential treatment in coming weeks

Summary of Key Factors affecting Grazing Management & Animal Performance

- 5. Soil temperatures this week 16.2 similar to the 15.5°C we had the previous week. .
- 6. We had 19 mm of rain over 2 days last week
- 7. PASTURE GROWTH this week was 77 kg DM/ha, lower than the 93 kg DM/ha grown last week. Average Pasture Cover this week is 2299 kg DM/ha (similar to the 2345 kg DM/ha last week). Pasture grazing residuals have been maintained at 7 rising plate meter "clicks"
- 8. Feed Wedge Today



The target line in the wedge reflects the pre-grazing target of 3,105 kg DM/ha and a post grazing of 1,480 kg DM/ha, which is the pre-grazing needed to feed the cows considering the stocking rate of 4.34 cows/ha (656 cows/150 ha)), cows eating 17 kg DM/cow/day and a rotation length of 22 days. The feed wedge has a surplus of 0.3 t DM.

- 9. Last week the herd grazed on average 7.8 ha per day. Round length of 19.2 days
- 10. No Silage was fed last week.



- 11. We have started Nitrogen application again. We applied 25 kg N to 36 ha this week.
- 12. Key management decisions to think about this week:
  - a) Use of Nitrogen going forward. We will keep the 25 kg N/ha after the cows this week and we will start 40 kg N/ha from next week. This will leave room for a last application before the end of the season and stay within budget,
  - b) When to get rid of Cull cows: Before deciding about it we need to know who are the low producers and MT cows that are still in the system. On Thursday this week we will do a Herd Test
  - c) When and how to extend the round: We are quite confident to maintain the round length on the 22 days as it is the target at the moment for at least a week. A Feed Budget will give us the Target Average Pasture Cover and Round length we want to achieve until the end of the season.
- 13. Paddock S3 was roller drilled on the 28<sup>th</sup> of January with Bealey Ryegrass and Weka and Kotare white clover. This paddock has the same weed mix striking as the others have had in the South block. It was sprayed with Preside today.
- 14. We are using the soil moisture deficit information from our 4 Aquaflex sites around the farm to schedule our irrigation. 2 days of irrigation was applied last week.
- 15. Cows will continue to be offered enough grass to achieve their potential intake and will be moved on when grazing residual targets are achieved.
- 16. We had 1 new case of mastitis this week. SCC has been between 168,000 170,000.
- 17. There were 6 new lame cows this week. These cows are being milked once per day while they recover from the injury.
- 18. 654 cows are milking into the silo. Cows are producing 1.45 kg MS/cow/day (last week 1.44) and 5.99 kg MS/ha/day (5.94 last week).
- 19. Bulls were removed from the cows on the 7th of January. This gave us a total of 10 weeks of mating 6 weeks of AI and 4 weeks natural mating. Pregnancy test done last week found 87% of cows in calf. So there are 13% of cows to do rechecks.

Next farm walk will be on Tuesday, 2<sup>nd</sup> March 2010, at 9.00 am.

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), Virginia Serra (DairyNZ).



Date (Totals at end of period)	2-Feb-10	9-Feb-10	16-Feb-10
Total Cows Wintered (July 1st Total)	683	683	683
Farm grazing ha (available to milkers)	150.05	150.05	150.05
Dry Cows on farm / East blk / other	2/0/0	2/0/0	3/0/0
Culls (Includes culls put down & empties)	0	0	0
Culls total to date	15	15	15
Deaths (Includes cows put down)	0	0	1
Deaths total to date	7	7	8
Calved Cows available (Peak Number 660 )	654	654	652
Treatment / Sick mob total	0	4	4
lame, mastitis, other, colostrum	20/0/0/0	16/4/0/0	16/4/0/0
Milking twice a day into vat	634	636	632
Milking once a day into vat	20	16	16
Total Cows Milked into vat	654	652	648
Days in Milk actual cow days/Peak Cows	167	174	180
MS/cow/day (Actual kg / Cows into vat only)	1.5	1.5	1.46
MS/cow to date (total kgs / Peak Cows 660)	280	290	300
MS/ha/day (total kgs / Total ha used - eg 161.5ha)	6.6	6.3	6.3
MS/ha to date (total kg / Total ha used)	1163	1204	1246
Herd Average Cond'n Score			
Whole herd LW (kgs)	472	476	471
Soil Temp Tues 10.00am 10cm	17.0	17.6	15.6
Growth Rate (kgDM/ha/day)	82	90	93
Plate meter height - ave half-cms	13.0	12.9	13.1
Ave Pasture Cover (x140 + 500)	2320	2310	2345
Pre Grazing cover (ave for week)	2866	3144	3343
Post Grazing cover (ave for week)	1480	1480	1500
highest pregrazing cover	2946	3220	3800
Area grazed / day (ave for week)	6.98	7.70	7.28
Grazing Interval	21	19	21
Pasture ME (pre grazing sample)	11.9		12.0
Pasture % Protein	20.0		25.6
Pasture % DM	13.9		14.4
Pasture % NDF	37.6		34.0
Supplements Type	Grass Silage	0	0
Supplements fed kg DM/cow/day in pdk	3.4	0.0	0.0
Supplements fed to date kg per cow (680 peak)	105	105	105
Supplements Made Kg DM / ha cummulative	598.7	598.7	598.7
Units N applied/ha and % of farm	30units,22%	0	0
Kgs/ha N to Date (on the NON-effluent area 133ha)	135	135	135
Rainfall (mm)	0	1	2.8
ET Weekly Soil & Science readings (mm)	29.2	24.7	19.3
days irrigated each week	5	5	3
Irrigation mm applied per week	23.2	23.2	17.4
Stock Water Consumed litres / cow / day	40	28	23















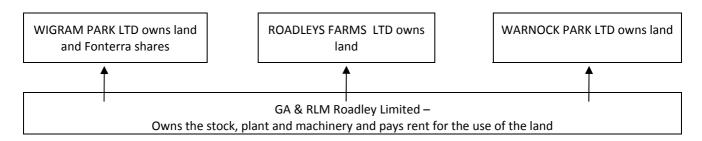


### Analysis of GA and RLM Roadley Ltd with LUDF

Farm: Greg & Rachel Roadley

#### **BUSINESS STRUCTURE**

- The business is set up in 4 companies and shares in these companies can be sell and bought by members of the family if there is need to raise capital
- GA & RLM Roadley Limited owns the stock, plant and machinery and pay rent to the land owning companies
- WIGRAM PARK Limited owns land and Fonterra shares
- ROADLEYS FARMS Limited and WARNOCK PARK Limited own the rest of the land
- Rachel and Greg own all the shares in GA & RLM Roadley Limited and WIGRAM PARK Limited and they also own some shares in WARNOCK PARK limited.
- The business structure has been good for the transition from a family farm to a family business



#### **LONG TERM GOALS:**

To enjoy what we are doing; to generate wealth that will allow for future flexibility; to operate a high productivity business; to generate free cash and gear business that will allow opportunities to be seized as they occur and to develop scale that can support high calibre management.

#### **FARM DESCRIPTION**

- There are 2 Dairy Farms (LOJO and Seafield) and a support and cropping block which is 7 Km away from the milking platform
- LOJO dairy farm was converted in 1992 and Seafield dairy farm was converted in 2001
- The support land provides winter grazing, young stock grazing and all the supplement (grain and silage) used on the milking platforms. All feed brought from the support block to the milking platforms is charged at current market price.
- Surplus grain when available is sold externally and also a small area of this block is leased to a neighbour to grow potatoes



#### **Dairy Farms:**

Farm	Area (Ef.)	Cows	S.R.	Kg MS /yr	kg MS/ha	kg MS/cow
LOJO	155	565	3.65	245,000	1581	434
Seafield	205	765	3.73	325,000	1585	425
Total	360	1330	3.69	570,000	1583	429

#### **Support & Cropping Farm:**

	•		
Farm	Eff Ha	Ha in Pasture	Stock number
Batley	200	71	400 R2
			400 R1
Hamptions	120	62	40 R2 bulls
			40 R1 bulls
Total	320	133	

What is not in grass in the Run off is:

- 70 ha Kale
- 25 ha Fodder Beet
- 60 ha Barley
- 32 ha leased out to a neighbour to grow potatoes

**Soils:** Mainly Lismore Silt Loam

Soil Fertility: PH 6 Olsen P 32 Potassium 11 Sulphate-S 8

Water: Regional Council Consent: 211 lts/sec

Pumping Capacity: 1 kw/ha

Irrigators: LOJO: 3 Rotorainers (12 days irrigation round). 3 hours to shift per day

Seafield: 100% Sprinklers (13 days irrigation round) 3-4 hours to shift per day

Support Block: Batley: Pivot (7 days return) = 130 ha

Southern Cross (15 days) and small Pivot=

Hamptions: Pivot (7 days return) = 90 ha

Gun & Southern Cross (15 days return)

Pastures: Most pastures in milking platform are < 10 years old since 10% of the effective area is

renewed most year.

Subdivisions: LOJO: 31 paddocks Seafield: 18 Paddocks

**Cow sheds:** LOJO: Herringbone 39 aside

Seafield: Rotary 50 bales

Both farms have grain feeding systems in the shed (installed 2 years ago)



**Houses:** There are 5 houses + 3 flats on the milking platforms

Plus another 2 houses on the support block (one for Greg & Rachel and the other for

Chris who is managing the run off)

Cows: Crossbred

465 kg LW/cow (LUDF 470 kg LW/cow

BW: 109/43 (LUDF BW 118/46) 10 weks of Mating (5 AB and 5 natural mating)

no induction policy for 6 seasons / 12 CIDRs used this season

Scan results this year = 88 % in calf (12% MT) 79% in calf in 6 weeks

Farm Advantages	Farm Limiting Factors
<ul> <li>Good winter growth</li> <li>Good Fertility</li> <li>Good water availability</li> <li>The support block</li> <li>Good houses available for staff</li> </ul>	<ul> <li>Irrigation system (rotorainers &amp; sprinklers)</li> <li>12-14 days return</li> <li>A pivot could grow more grass but do not want to cut trees down</li> </ul>



#### PHYSICAL KPIS' COMPARISON - ROADLEYS' FARM & LUDF

Data Extracted From DairyBas	se Reports	20	08/2009	2	007/2008
FARM DETAILS		Roadley	LUDF	Roadley	LUDF
Milking Platform effective	ha	363	159	369	161.5
Peak Cows milked	cows	1380	680	1380	680
Stoking Rate	cows/ha	3.8	4.3	3.7	4.2
Planned Start of Calving		25-Jul	3-Aug	1-Aug	27-Jul
Nitrogen used /year	kg N	234	198	200	186
W- NAC hatal	I/ =	562.064	264 424	642.700	204 602
Kg MS total	Kg	563,964	261,424	613,709	281,693
Milksolids /ha	kg/ha	1554	1644	1663	1744
Milksolids / cow	Kg/cow	409	384	445	414
Kg MS as % kg LW	%	88	82	96	85
Days in milk /cow	days	270	254	275	263
MS/ ha to 31st December	kg/ha	904	929	916	970
10 day peak /cow	kg/day	2	2	2	2
Month Prod Drop: peak to 31 Dec	%	8.8	11.6	3.3	7.5
2	. 5.4 /1	4.4.4	47.0	440	47.0
Pasture & Crop Eaten	t DM/ha	14.4	17.2	14.8	17.9
Imported Suppl. Eaten	t DM/ha	1	1.2	1	1.1
Grazing off dry cows eaten	t DM/ha	2.9	1.7	3.5	1.9
Total Feed Eaten	t DM/ha	18.3	20.1	19.3	20.9
% of Farm Harvested Silage	%	3	18	0	27
	/==-	4.45	404	4.45	406
Cows/labour Unit	cows/FTE		184	145	196
Milksolids /labour unit	kg/FTE	59,365	70,655	64,601	81,258

#### **Key Points:**

- Roadley does less production per ha but more production per cow
- Roadley harvest less pasture per ha using similar amount of imported supplement and a bit more Nitrogen per ha
- Both farms have similar peak production but LUDF has a bigger drop from peak to 31<sup>st</sup>
   December
- Roadley harvest less grass from the milking platform than LUDF, despite having less cows per ha.
- Total pasture Growth at Roadley is likely to be lower than LUDF



#### PRODUCTION SYSTEM

The farm runs a system 3. All cows are wintered off in the support block and about 1.3 TDM is imported during the year. All young stock is grazed in the support block and occasionally brought to the milking platform if there is a surplus.

The farm has been milking in the winter for 5 years until this season when this practice stopped. Winter milking started when the nil induction policy was introduced, to cope with the higher number or empty cows. Usually there have been about 180 cows milked in winter. As can be seen in the table below, there has been a small increase in stocking rate and in production per ha in the last 6 years. Supplement use had dropped slightly and maize silage was changed for Barley grain from the run off.

#### **Summary of Physical Information**

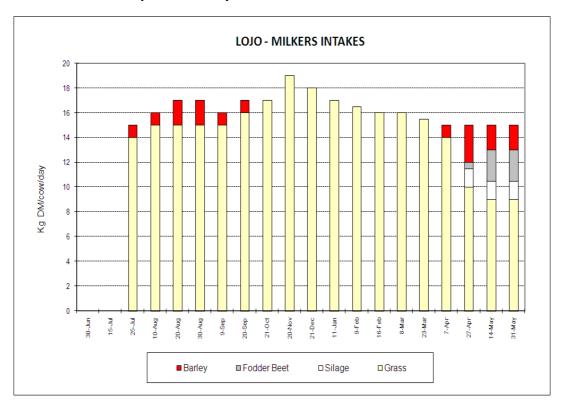
	04 -05	05-06	06-07	07-08	08-09	09-10
Area (ha)	363	363	363	363	363	363
Cow numbers	1,240	1,260	1,300	1,350	1,380	1,340
Cows /ha	3.42	3.47	3.58	3.72	3.80	3.69
Kg MS/ha	1,466	1,519	1,559	1,670	1,553	1,598
Kg MS/cow	429	438	435	449	409	433
MS % LW	92%	94%	94%	97%	88%	93%
Imported feed						
Imported feed Barley (kg/cow)	-	-	-	250	250	250
•	- 300	- 340	- 275	250 -	250 -	250 -
Barley (kg/cow)	- 300 160	- 340 80	- 275 150	250 - 100		
Barley (kg/cow) Maize silage (kg/cow)				-	-	-
Barley (kg/cow) Maize silage (kg/cow) Grass silage (kg/cow)	160	80	150	- 100	- 100	- 100

#### **KEY DRIVING PRINCIPLES OF THE SYSTEM:**

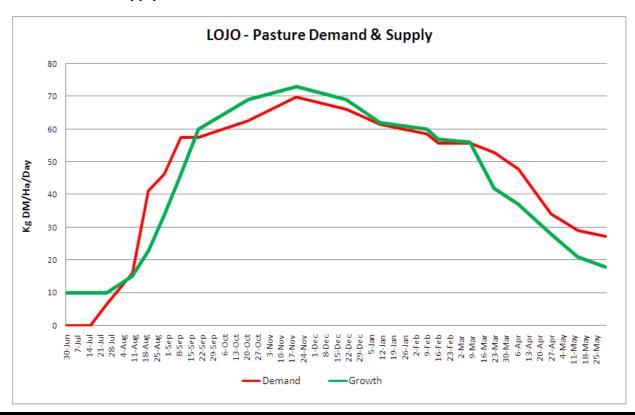
- Matching pasture supply and demand throughout the season
- Using supplements to fill in deficits (75% of supplement feed is in the autumn)
- Supplements are rarely feed in summer if in deficit first option is to reduce demand by culling cows
- Achieving 1,500 kg DM/ha post grazing at all times
- Cows are put back to paddocks if the post grazing level was not achieved
- Weekly farm walks provides information to adjust feeding decisions
- No topping
- 24 hour grazing interval
- Because of size of paddocks, usually breaks need to be done
- 10% of the farm regressed per year
- Nitrogen is used as required at about 200 kg N/ha/year
- Average Pasture Cover target for the farm at different times of the year is monitored and is what dictates decisions on farm
- To run a simple system with easy and clear decision rules for everybody on farm to follow
- Feeding Policy will not change to chase production if payout changes



#### **Example of Milkers Diet Composition the year**

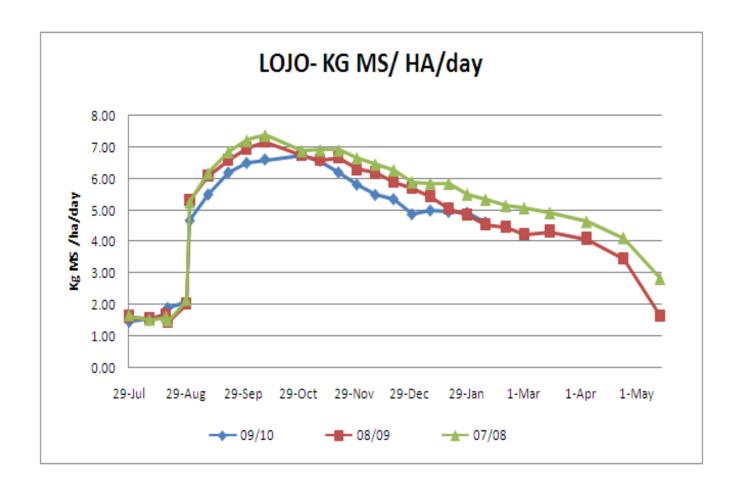


#### **Pasture Demand and Supply**





#### Milk Production per hectare – last 3 years



#### **Reproductive Performance**

	2004-	2005-	2006-	2007-	2008-	2009-
	2005	2006	2007	2008	2009	2010
Inductions	0%	0%	0%	0%	0%	0%
CIDR use	0%	3%	2%	9%	14%	1%
Weeks AI	10	6	6	6	6	5
Weeks bull	0	3	4	4	4	5
Total weeks mating	10	9	10	10	10	10
Empty rate	14%	15%	12%	12%	13%	11%*



#### FOODERBEET CROP IN THE MILKING PLATFORM

A small area of FooderBeet (2.4 ha) was used this year in the Milking Platform in LOJO farm. FooderBeet has a low cost/kg DM if good yield is achieved; it is good quality and it is likely to have higher utilization than silage. However, some possible disadvantages are: soil damage, animal nutrition issues and management when feeding the crop

There is a possibility of using a bigger area of this crop and less supplements.

Direct Costs	\$/ha
Cultivation	80
Seeds	234
Drilling	156
Fertiliser	600
Spraying	655
Regrassing post Crop	800
Total Cost	2,525
Regrassing cost saved	\$/ha
Fertiliser	600
Regrassing (10%)	80
Total Pasture Cost	680
Total Cost	\$/ha
Direct Cost – Regrassing Cost	1,845

N@200 kg, Super @350, Spreading +freight)

Marginal Feed Produced	T DM/ha
Pasture	15
Fodder Beet Crop	25
Extra kg DM	10

Cost / Kg DM FooderBeet = 18 cents/kgDM



#### **PASTURE MANAGEMENT TOOLS**

The table below contains a list of tools used at the LUDF to assist the pasture management decisions. The list was used at the past field days at Willsden farm (Leo Donkers) and Alderbrook farm (Marvin Pangborn) and now includes information from Roadleys' farms. The objective is to compare which tools are used on these farm compared to LUDF.

Tool	LUDF	Willsden	Alderbrook	Roadleys	Your Farm
Monthly inspection from Feb to Sept of off farm winter grazing contracts	٧	٧		٧	
Autumn to Spring feed budget for milking platform	٧	٧	٧	٧	
Regular updating of budget with Growth Rates, farm covers and stock numbers	٧	٧			
Autumn to Spring feed budget for runoffs	٧	٧		٧	
Regular updating of budget with Growth Rates, farm covers and stock numbers for run off	٧	٧		٧	
Store of "insurance" supplements	٧	٧	٧	٧	
1 June to 1 Oct pasture cover target graph monitored weekly by farm walk	٧	٧		٧	
Spring Rotation Plan	٧	٧	٧	٧	
Weekly Pasture wedge (Sept on)	٧	٧	٧	٧	
Daily/weekly soil temperature monitoring all year	٧	٧			
Daily/weekly soil moisture deficit monitoring spring to autumn	٧	٧			
Regular pasture pest monitoring	٧	٧			
Measurement to allow annual ranking of paddocks by DM yield	٧	٧			

Pasture management is key for the success and profit of the system. Everyone in the team has a role to play and the rules to follow are clear for everyone.

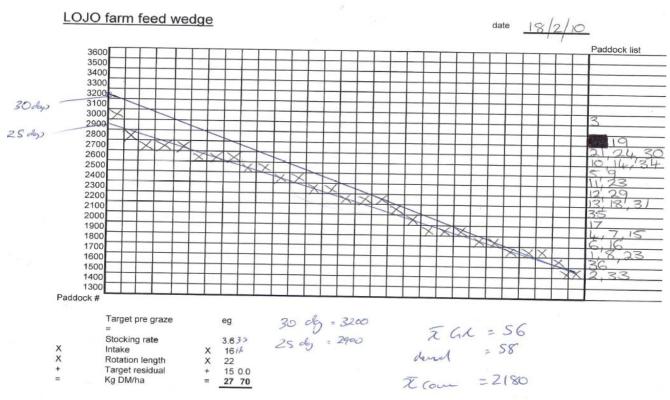
One of the NON-NEGOTIABLE of the system is the average pasture cover at the end of May. Decisions in autumn are driven by achieving this target. The covers from February to the end of May are plotted on a graph (as shown below). This information comes from the feed budget done by Greg at the end of summer.





Weekly farm walks provides information to track the actual average pasture cover with the budget. Tristan at the LOJO farm uses the PLATE METER for pasture walk but Angela at Seafield farm does it by eye assessment. Junior staff member also come to the farm walk when possible. Sometimes Greg walks some paddocks as well to calibrate all people on farm

The information from the farm walk is transferred to the Feed Wedge template below. From it a grazing plan is established.





#### SEASONAL MANAGEMENT

#### From Start of Calving to Balance Date:

Follow Spring Rotation Planner
Offering 80 m2 /cow to the milkers
Cows are on the run off until close to calving
Average Pasture Cover tracker is monitored at
all times

If there is a deficit cow condition will be used first and only occasionally some grain would be feed

#### From Balance Date to late summer (February)

Main tool used is the Feed Wedge Round length is around 21 days No supplement is use during this period Regrassing is usually done when there is a surplus

Residual is maintain at 1500 kg DM/ha Pre-grazings are dictated by stocking rate at the time, round length and cow intake When there is a surplus it is managed by regrassing, silage made or by bringing heifers from run off

# From March until the end of the season (end of May)

A Feed Budget from March to Balance date is set up

Cow Condition targets are established to achieve the calving targets

Drying cows off policy is following the feed Budget

Supplement use in autumn is dictated by Average Pasture cover and residual Residuals are still maintained at 1500 DM/ha

#### June – July - Wintering System:

There are 15 (150mx12m) gravel feeding strips alongside shelter hedges. Each strip has a water trough that has a measured mineral dose added. Magnesium is added to the silage The payback period for the investment in the strips is 5 years

The strips require just a quick annual grade No cows stay on the milking platform Cows are split based on cow condition, the lighter cows & heifers have a diet of Kale(8-10kg) & Silage (2-4kg) the balance have Kale/Fodder beet(10kg) & straw (2kg)fed via bale feeders in the paddock.











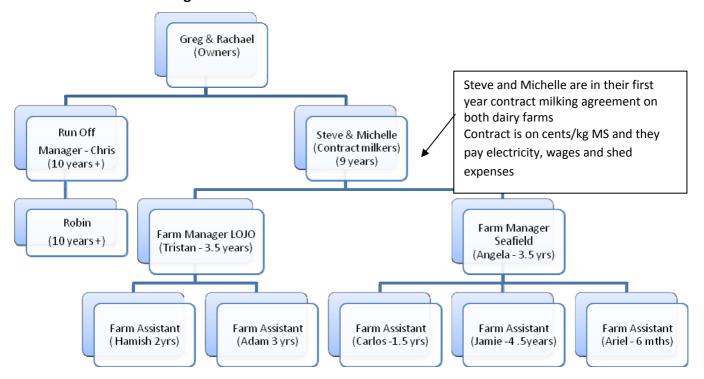






#### LABOUR STRUCTURE and PRODUCTIVITY

#### How many farmers could go away for 3 months during calving? Greg and Rachel could this season ... So what is the secret?



#### **Main Key Performance Indicators:**

- 8.5 paid Full Time Equivalent (FTE) + 0.5 FTE unpaid manager + 0.5 unpaid FTE to manage the Milking Platforms
- 59,365 kg MS / FTE (LUDF 70,655 kg MS/FTE)
- 9.4 milking cups / FTE (LUDF 13,5 cups/FTE) 145 cows/FTE (LUDF 184 cows/FTE)
- Roster 7 days on 2 days off all year around

#### **Main Staff Management Strategies:**

- There are staff weekly meetings where the plan for the week is done.
- Until last season Greg and Rachel were driving the meetings and now Steve and Michelle are.
- There is no written reporting to Greg from farm managers or contract milkers
- Training sessions are organised at critical times of the year (e.g. pre-mating, pre calving etc) using external professionals e.g. vets to get the messages thru to everybody.
- There are good systems in place to cope if any of the key people leaves the business

#### Why people stay?

- Treat them fairly. Remuneration & bonuses tailored to the individual
- Good accommodation offered
- Everybody have the opportunity to participate in the decisions on the farm
- Financial Budgets are shared with staff
- Both Greg and Rachel discuss staff objectives and collaborate to help achieve their objectives
- Performance reviews are done twice a year
- Steve and Michelle have the objective of being able to go overseas and the farm has to work



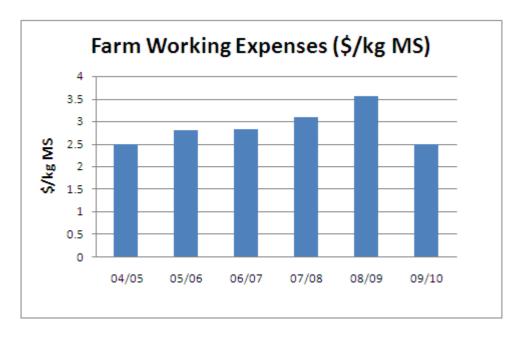
#### **FARM FINANCIAL PERFORMANCE – Comparison to LUDF**

Data Extracted From DairyBase Reports	2008/2	.009	2007/	2008
GROSS FARM INCOME \$/ha	Roadley	LUDF	Roadley	LUDF
Net Milk Sales	8,445	8,536	12,640	13,574
Net Dairy Livestock Sales	512	693	1048	962
Change in Livestock Value	-294	-346	-232	196
Other Dairy Reveue	11	0	43	0
Dairy Gross Farm Revenue	8,674	8,883	13,499	14,732
Farm Expenses	Roadley	LUDF	Roadley	LUDF
Labour Expenses	1,822	1,498	1,543	1,160
Animal Health	284	296	298	263
Breeding & Herd Improvement	173	290	139	324
Farm Dairy	58	64	48	32
Electricity	87	93	79	105
Supplement Made /Purchased	353	645	337	596
Feed Inventory adjustment	17	0	0	-77
Calf Feed	67	42	57	68
Young Stock Grazing	0	735	0	563
Winter Grazing	0	759	0	635
Run off Lease	580	0	580	
Fertiliser	393	378	162	184
Nitrogen	487	578	630	373
Irrigation	508	236	575	301
Regrassing	12	94	4	51
Weed & Pest	9	7	12	12
Vehicle	117	88	83	62
Fuel	148	44	112	54
R&M	463	331	418	551
Freight General	36	33	50	31
Administration	89	139	127	176
Rates, Insurance & ACC	181	94	167	86
Depreciation	702	675	764	623
TOTAL DAIRY OPERATING EXPENSES	6,586	7,119	6,185	6,173
DAIRY OPERATIN PROFIT	2,088	1,764	7,314	8,559

The information presented in the table above was extracted from the dairy base reports for both farms. For the Roadleys' farm a run off adjustment was included for the area used for winter grazing and young stock razing. Operating expenses includes running cost of the run off including labour, fertilizers, pastures etc.



#### **Historical Cost of Production**



For the season 2009/10 farm working expenses excludes cost of Contract milker

#### Feed Cost Season 2008/2009

Grazing								
Winter	1250	9	weeks @	-\$	21.00	/week	-\$	236,250
Calves	400	26	weeks @	-\$	6.50	/week	-\$	67,600
Yearlings	400	52	weeks @	-\$	10.00	/week	-\$	208,000
Breeding bulls	40	52	weeks @	-\$	8.00	/week	-\$	16,640
Feed purchased	kg per cow	total						
Feed purchased Silage	kg per cow 100	total 140	T DM	-\$	220.00	/tDM	-\$	30,800
	<u> </u>		T DM T DM	-\$ -\$	220.00 300.00	/tDM /tDM	-\$ -\$	30,800 95,220
Silage	100	140						

#### Historical Financial Performance of Dairy Farm Business (excluding Support Block)

		04 -05		05-06		06-07		07-08		08-09
Kg MS Total	\$	532,038	\$	551,437	\$	565,826	\$	606,043	\$	580,000
Payout	\$	4.59	\$	4.10	\$	4.46	\$	7.90	\$	5.10
Income milk	\$	2,442,054	\$	2,260,892	\$	2,523,584	\$	4,787,740	\$	2,958,000
Dairy sales	\$	162,268	\$	131,489	\$	201,050	\$	228,270	\$	284,628
Potatoes (grown on MP)					\$	10,575	\$	25,300	\$	-
GFI	\$	2,604,322	\$	2,392,381	\$	2,735,209	\$	5,041,310	\$	3,242,628
Dairy costs prodn	-\$	1,331,057	-\$	1,539,326	-\$	1,596,795	-\$	1,873,071	-\$	2,059,890
Cost of production \$/kg	-\$	2.50	-\$	2.79	-\$	2.82	-\$	3.09	-\$	3.55
EBIT	\$	1,273,265	\$	853,055	\$	1,138,414	\$	3,168,239	\$	1,182,738
EBIT/ha	\$	3,508	\$	2,350	\$	3,136	\$	8,728	\$	3,258



Total	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
1	Act	Act	Act	Act	Act	Act	Act	Act	Bud	Bud	Bud	Bud
697,784	92,047	92,047	92,047	92,047	17,852	58952	27,732	27,732	47,832	47,832	53,832	47,832
49,000										49,000		
<i>86,750</i>						36,750					50,000	
833,534	92,047	92,047	92,047	92,047	17,852	95,702	27,732	27,732	47,832	96,832	103,832	47,832
	Act	Act	Act	Act	Act	Act	Act	Act	Bud	Bud	Bud	Bud
-1,252			-235				-300	-289	-230		-198	
-120,763			-753	-821	-26,275	-26,789	-19,834	-18,305	-3,980	-5,148	-9,429	-9,429
-551	-39	-39	-110	-39	-39	-39	-39	-39	-42	-42	-42	-42
-53,524						-5,251	-7,410	-20,983	-17,748		-2,132	
-27,803						-9,194	-1,248	-5,216	-3,965	-2,220	-5,960	
-700		-89						-611				
-48,241				-3,276		-6,272	-5,738	-11,241	-8,296	-13,418		
-9,612			-2,064		-1,875		-1,474	-507	-1,846		-1,846	
-58,264		-1,128	-956	-4,762	-2,259	-2,054	-31,202	-7,873	-2,291	-2,793	-1,473	-1,473
-101,002	-7,560	-8,392	-8,362	-5,594	-6,830	-7,303	-14,806	-10,155	-8,000	-8,000	-8,000	-8,000
-298								-28		-177	-93	
-28,369		-352	-628	-4,620	-4,025	-4,130	-4,679	-2,854	-665	-2,893	-3,523	
-450,379	-7,599	-10,000	-13,108	-19,112	-41,303	-61,032	-86,730	-78,101	-47,063	-34,691	-32,696	-18,944
383,155	84,448	82,047	78,939	72,935	-23,451	34,670	-58,998	-50,369	769	62,141	71,136	28,888
	697,784 49,000 86,750 833,534 -1,252 -120,763 -551 -53,524 -27,803 -700 -48,241 -9,612 -58,264 -101,002 -298 -28,369 -450,379	Act 697,784 92,047 49,000 86,750 833,534 92,047  Act -1,252 -120,763 -551 -39 -53,524 -27,803 -700 -48,241 -9,612 -58,264 -101,002 -7,560 -298 -28,369 -450,379 -7,599	Act Act 697,784 92,047 92,047 49,000 86,750 833,534 92,047 92,047  Act Act -1,252 -120,763 -551 -39 -39 -53,524 -27,803 -700 -89 -48,241 -9,612 -58,264 -1,128 -101,002 -7,560 -8,392 -298 -28,369 -352 -450,379 -7,599 -10,000	Act         Act         Act           697,784         92,047         92,047         92,047           49,000         86,750         833,534         92,047         92,047         92,047           Act         Act         Act         Act           -1,252         -235         -753           -551         -39         -39         -110           -53,524         -27,803         -89         -48,241           -9,612         -2,064         -58,264         -1,128         -956           -101,002         -7,560         -8,392         -8,362         -8,362           -298         -28,369         -352         -628           -450,379         -7,599         -10,000         -13,108	Act         92,047         9	Act         P2,047         92,047         92,047         92,047         17,852           833,534         92,047         92,047         92,047         92,047         17,852           Act         Act         Act         Act         Act         Act           -1,252         -235         -235         -26,275           -551         -39         -39         -110         -39         -39           -53,524         -27,803         -700         -89         -89         -48,241         -3,276         -1,875           -58,264         -1,128         -956         -4,762         -2,259           -101,002         -7,560         -8,392         -8,362         -5,594         -6,830           -298         -28,369         -352         -628         -4,620         -4,025           -450,379         -7,599         -10,000         -13,108         -19,112         -41,303	Act         Act <td>Act         Act         Act<td>Act         Act         Act<td>Act         Act         Bud           697,784         92,047         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832           49,000         86,750         Sa3,534         92,047         92,047         92,047         17,852         95,702         27,732         27,732         47,832           Act         Act</td><td>Act         Act         Bud         Bud           697,784         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832         47,832           49,000         86,750         TOTAL         TOTAL         17,852         95,702         27,732         27,732         47,832         96,832           Act         Bud         Bud           -1,252         -235         -235         -300         -289         -230         -5148           -1,252         -235         -821         -26,275         -26,789         -19,834         -18,305         -3,980         -5,148           -551         -39         -39         -39         -39         -39         -39         -39         -42         -42           -53,524         -         -         -         -         -5,251         -7,410         -20,983         -17,748           -27,803         -         -         -         -<!--</td--><td>Act         Act         Act         Act         Act         Act         Act         Act         Act         Act         Bud         Bud         Bud           697,784         92,047         17,852         95,702         27,732         27,732         47,832         96,832         103,832           -1,252         Act         Act         Act         Act         Act         Act         Act         Act         Act</td></td></td></td>	Act         Act <td>Act         Act         Act<td>Act         Act         Bud           697,784         92,047         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832           49,000         86,750         Sa3,534         92,047         92,047         92,047         17,852         95,702         27,732         27,732         47,832           Act         Act</td><td>Act         Act         Bud         Bud           697,784         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832         47,832           49,000         86,750         TOTAL         TOTAL         17,852         95,702         27,732         27,732         47,832         96,832           Act         Bud         Bud           -1,252         -235         -235         -300         -289         -230         -5148           -1,252         -235         -821         -26,275         -26,789         -19,834         -18,305         -3,980         -5,148           -551         -39         -39         -39         -39         -39         -39         -39         -42         -42           -53,524         -         -         -         -         -5,251         -7,410         -20,983         -17,748           -27,803         -         -         -         -<!--</td--><td>Act         Act         Act         Act         Act         Act         Act         Act         Act         Act         Bud         Bud         Bud           697,784         92,047         17,852         95,702         27,732         27,732         47,832         96,832         103,832           -1,252         Act         Act         Act         Act         Act         Act         Act         Act         Act</td></td></td>	Act         Act <td>Act         Act         Bud           697,784         92,047         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832           49,000         86,750         Sa3,534         92,047         92,047         92,047         17,852         95,702         27,732         27,732         47,832           Act         Act</td> <td>Act         Act         Bud         Bud           697,784         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832         47,832           49,000         86,750         TOTAL         TOTAL         17,852         95,702         27,732         27,732         47,832         96,832           Act         Bud         Bud           -1,252         -235         -235         -300         -289         -230         -5148           -1,252         -235         -821         -26,275         -26,789         -19,834         -18,305         -3,980         -5,148           -551         -39         -39         -39         -39         -39         -39         -39         -42         -42           -53,524         -         -         -         -         -5,251         -7,410         -20,983         -17,748           -27,803         -         -         -         -<!--</td--><td>Act         Act         Act         Act         Act         Act         Act         Act         Act         Act         Bud         Bud         Bud           697,784         92,047         17,852         95,702         27,732         27,732         47,832         96,832         103,832           -1,252         Act         Act         Act         Act         Act         Act         Act         Act         Act</td></td>	Act         Bud           697,784         92,047         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832           49,000         86,750         Sa3,534         92,047         92,047         92,047         17,852         95,702         27,732         27,732         47,832           Act         Act	Act         Bud         Bud           697,784         92,047         92,047         92,047         17,852         58952         27,732         27,732         47,832         47,832           49,000         86,750         TOTAL         TOTAL         17,852         95,702         27,732         27,732         47,832         96,832           Act         Bud         Bud           -1,252         -235         -235         -300         -289         -230         -5148           -1,252         -235         -821         -26,275         -26,789         -19,834         -18,305         -3,980         -5,148           -551         -39         -39         -39         -39         -39         -39         -39         -42         -42           -53,524         -         -         -         -         -5,251         -7,410         -20,983         -17,748           -27,803         -         -         -         - </td <td>Act         Act         Act         Act         Act         Act         Act         Act         Act         Act         Bud         Bud         Bud           697,784         92,047         17,852         95,702         27,732         27,732         47,832         96,832         103,832           -1,252         Act         Act         Act         Act         Act         Act         Act         Act         Act</td>	Act         Bud         Bud         Bud           697,784         92,047         17,852         95,702         27,732         27,732         47,832         96,832         103,832           -1,252         Act         Act         Act         Act         Act         Act         Act         Act         Act



#### Season 2009/10 - Budget Roadleys' & LUDF

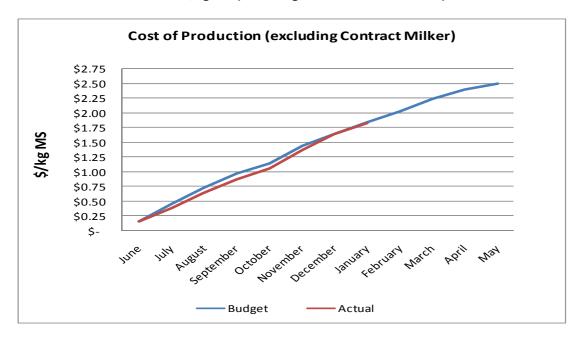
BUDGET SEASON 2009/10 FARM EXPENDITURE	ROADLEYS Total cost	ROADLEYS \$/kg MS (580,000 kg MS)	LUDF Total	LUDF \$/kg MS (277,630 kg MS)
Administration	-14,580	-0.03	-27,250	-0.10
Animal Health	-97,397	-0.17	-41,922	-0.15
Breeding Expenses	-57,844	-0.10	-32,027	-0.12
Shed Expenses	0	0.00	-8,200	-0.03
Electricity - farm	0	0.00	-14,500	-0.05
Calf Rearing	-26,308	-0.05	0	0.00
Fertiliser inc. Nitrogen	-230,238	-0.40	-105,721	-0.37
Feed General	-18,184	-0.03	0	0.00
Farm Working	-12,580	-0.02	0	0.00
Herd Improvement	-13,623	-0.02	0	0.00
Irrigation	-144,399	-0.25	-57,751	-0.21
Rates & Insurance	-30,214	-0.05	-15,864	-0.06
Repairs & Maint	-68,899	-0.12	-47,500	-0.17
Weed & Pest	-1,650	-0.00	-1,400	-0.01
Vehicle Expenses	-36,481	-0.06	-18,300	-0.07
Winter Grazing Cows	-296,780	-0.51	-138,000	-0.50
Calves Feed	-59,280	-0.10	0	0.00
Yearlings Grazing	-197,592	-0.34	-109,044	-0.39
Breeding bulls	-16,632	-0.03	0	0.00
Grass Silage Purchased	-33,600	-0.06	-26,219	-0.09
Grain	-80,400	-0.14	0	0.00
Straw	-6,000	-0.01	0	0.00
Silage made on farm	-7,500	-0.01	-40,943	-0.15
Regrassing	0	0.00	-5,810	-0.02
Wages & Labour Expenses	0	0.00	-223,712	-0.80
TOTAL FARM WORKING EXPENSES	-1,450,181	-2.50	-914,163	-3.29

#### Feed Costs Detail - Season 2009/2010

Winter		1420	9.5	weeks @	-\$	22.00 /week	-\$	296,780
Calves		380	26	weeks @	-\$	6.00 /week	-\$	59,280
Yearlings		400	52	weeks @	-\$	9.50 /week	-\$	197,600
Breeding bulls	;	40	52	weeks @	-\$	8.00 /week	-\$	16,640
Silage	(Kg/cow)	100	140	T DM	-\$	240.00 /tDM	-\$	33,600
Grain	(Kg/cow)	250	335	T DM	-\$	240.00 /tDM	-\$	80,400
Straw	(Kg/cow)	10	40	T DM	-\$	150.00 /tDM	-\$	6,000
Silage made o	n farm		50	T DM	-\$	150.00 /tDM	-\$	7,500
Total Feed						_	-\$	697,800



#### Cost of Production Tracker \$/kg MS (excluding cost of Contract Milker)



#### What changes could the system have in the future?

- To convert the run off to dairy
- To put Central Pivot irrigation in the milking platforms
- Increase the use of Fodder Bet in the run off and also in the milking platform replacing grain

#### **BUSSINESS RISKS**

Loss of Key personal, Irrigation failure/sole reliance on one aquifer, Inflated land values – inability to generate appropriate ROC, Lack of liquidity in land owning companies, Rising cost of production, Impact of global credit crisis on cost of debt, Bio-security issues

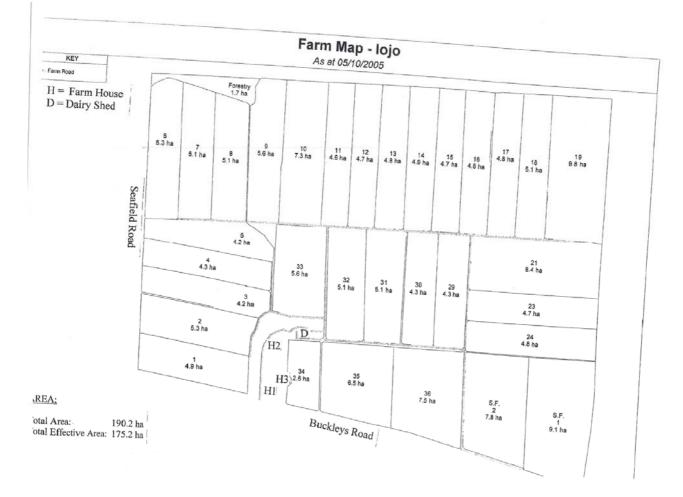
#### **OPPORTUNITIES**

To further consolidate land holding in one location, Runoff conversion, Leverage against NZ land to invest off farm/outside NZ, Ability to diversify land use,

#### **FINAL KEY MESSAGES**

- LUDF Principles work on multiple farm business when the key principles are followed by all team members
- Run –off provides stability to the system in terms of price and outcomes achieved
- High productive run off well managed can be profitable and a good positive for the dairy farms.
- Size of the run off allows one person to be full time on it which contributes to the overall performance of the business
- Staff retention is key in developing systems that works.
- YOU CAN LEAVE THE FARM DURING CALVING !!!!!!























# SIDDC ONLINE

Check out the SIDDC website to find out how your farm compares to best practice, see the latest farm walk notes as well as:

- Research
- News and events
- Maps
- Focus days
- Demo farm information
- and much more





VISIT THE SIDDC **WEBSITE AT** www.siddc.org.nz





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