

SOUTHLAND DAIRY

THIS REPORT CONTAINS THE KEY RESULTS FROM THE MINISTRY OF AGRICULTURE AND FORESTRY'S 2009 PASTORAL MONITORING PROGRAMME.

The Southland dairy model represents around 660 owner-operator farms in the Southland region who supply milk to the Fonterra factory at Edendale. The model consists of a 183 hectare milking platform and a 68 hectare run-off.

KEY POINTS

- › Total milksolids production increased 4 percent from 2007/08, to 195 800 kilograms of milksolids in 2008/09.
- › The drop in milksolids payout saw net cash income decrease 28 percent (down \$408 500) compared with 2007/08.
- › Southland dairy farmers reduced spending but farm working expenses were \$3.60 per kilogram of milksolids: the second highest ever monitored.
- › Farm profit before tax decreased \$462 900 to \$3400 and the model farm made a \$153 400 cash deficit in 2008/09.
- › Southland dairy farmers are focussing on profitability by aiming to cut costs while maintaining production efficiencies.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE SOUTHLAND DAIRY MODEL¹

YEAR ENDED 30 JUNE	2005/06	2006/07	2007/08 ^R	2008/09	2009/10 BUDGET
Effective area (ha)	178	178	183	183	183
Cows wintered (head)	499	518	549	557	569
Replacement heifers (head)	102	127	127	137	140
Cows milked 15th December (head)	478	490	499	510	516
Stocking rate (cows/ha)	2.7	2.8	2.7	2.8	2.8
Total milksolids (kg)	185 375	196 000	189 000	195 800	201 300
Milksolids per ha (kg/ha)	1 042	1 101	1 033	1 070	1 100
Milksolids per cow milked (kg/cow)	388	400	379	384	390
MS advance to end June (\$/kg)	3.60	3.65	6.62	4.15	3.74
MS deferred payment (\$)	0.64	0.50	0.81	1.00	1.05
Net cash income (\$)	816 300	857 500	1 478 000	1 069 500	1 009 900
Farm working expenses (\$)	490 500	553 000	699 000	705 900	616 000
Farm profit before tax (\$)	164 600	99 500	466 500	3 400	65 700
Farm surplus for reinvestment ² (\$)	67 000	-6 900	323 500	-41 200	30 400

Notes

1 Figures may not add to totals due to rounding.

2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

Symbol

R The model parameters have been revised, so the data for 2007/08 will not match that published in *Pastoral Monitoring Report 2008*.



»» TABLE 2: SOUTHLAND DAIRY MODEL BUDGET¹

	2008/09			2009/10 BUDGET			CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE FARM (\$)	PER COW (\$)	PER KG MILSOLIDS (\$)	WHOLE FARM (\$)	PER COW (\$)	PER KG MILSOLIDS (\$)	
REVENUE							
Milksolids	1 001 700	1 964	5.12	958 500	1 858	4.76	-4
Cattle	63 000	124	0.32	49 800	96	0.25	-21
Other farm income	6 000	12	0.03	3 151	6	0.02	-48
LESS:							
Cattle purchases	1 300	3	0.01	1 500	3	0.01	12
Net cash income	1 069 500	2 097	5.46	1 009 900	1 957	5.02	-6
Farm working expenses	705 900	1 384	3.60	616 000	1 194	3.06	-13
Cash operating surplus	363 600	713	1.86	393 900	763	1.96	8
Interest	312 500	613	1.60	283 700	550	1.41	-9
Rent and/or leases	0	0	0.00	0	0	0.00	..
Stock value adjustment	17 300	34	0.09	13 700	27	0.07	-21
Minus depreciation	64 900	127	0.33	58 100	113	0.29	-10
Farm profit before tax	3 400	7	0.02	65 700	127	0.33	1803
Taxation	13 100	26	0.07	10 200	20	0.05	-22
Farm profit after tax	-9 700	-19	-0.05	55 500	108	0.28	-675
Add back depreciation	64 900	127	0.33	58 100	113	0.29	-10
Reverse stock value adjustment	-17 300	-34	-0.09	-13 700	-27	-0.07	-21
Off-farm income	0	0	0.00	0	0	0.00	..
Discretionary cash	38 000	74	0.19	99 900	194	0.50	163
APPLIED TO:							
Net capital purchases	65 500	128	0.33	47 400	92	0.24	-28
Development	46 600	91	0.24	4 800	9	0.02	-90
Principal repayments	0	0	0.00	0	0	0.00	..
Drawings	79 200	155	0.40	69 500	135	0.35	-12
New borrowings	0	0	0.00	0	0	0.00	..
Introduced funds	0	0	0.00	0	0	0.00	..
Cash surplus/deficit	-153 400	-301	-0.78	-21 800	-42	-0.11	-86
Farm surplus for reinvestment²	-41 200	-81	-0.21	30 400	59	0.15	-174
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	9 020 000	17 686	46.06	6 988 000	13 543	34.71	-23
Plant and machinery (opening)	190 500	374	0.97	191 200	370	0.95	0
Stock valuation (opening)	779 000	1 528	3.98	796 300	1 543	3.96	2
Dairy company shares	1 091 700	2 141	5.57	885 900	1 717	4.40	-19
Other farm related investments (opening)	0	0	0.00	0	0	0.00	..
Total farm assets	11 081 300	21 728	56.58	8 861 400	17 173	44.02	-20
Total liabilities (opening)	3 650 000	7 157	18.64	3 750 000	7 267	18.63	3
Total equity (assets-liabilities)	7 431 300	14 571	37.95	5 111 400	9 906	25.39	-31

Notes

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2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

Symbol

.. Not applicable.

»» TABLE 3: SOUTHLAND DAIRY MODEL EXPENDITURE¹

	2008/09			2009/10 BUDGET			CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE FARM (\$)	PER COW (\$)	PER KG MILSOLIDS (\$)	WHOLE FARM (\$)	PER COW (\$)	PER KG MILSOLIDS (\$)	
FARM WORKING EXPENSES							
Permanent wages	120 800	237	0.62	117 700	228	0.58	-3
Casual wages	11 200	22	0.06	9 700	19	0.05	-14
ACC	2 900	6	0.01	3 500	7	0.02	19
Total labour expenses	135 000	265	0.69	130 900	254	0.65	-3
Animal health	37 200	73	0.19	34 700	67	0.17	-7
Breeding	20 500	40	0.10	17 900	35	0.09	-13
Dairy shed expenses	9 300	18	0.05	9 400	18	0.05	2
Electricity	17 000	33	0.09	18 200	35	0.09	7
Feed (hay and silage)	59 700	117	0.30	42 300	82	0.21	-29
Feed (feed crops)	5 500	11	0.03	5 200	10	0.03	-5
Feed (grazing)	91 800	180	0.47	88 800	172	0.44	-3
Feed (other)	40 800	80	0.21	36 600	71	0.18	-10
Fertiliser	118 600	233	0.61	83 000	161	0.41	-30
Lime	1 900	4	0.01	3 700	7	0.02	98
Freight (not elsewhere deducted)	9 400	18	0.05	9 800	19	0.05	4
Regrassing costs	10 600	21	0.05	10 000	19	0.05	-5
Weed and pest control	4 000	8	0.02	4 300	8	0.02	7
Fuel	20 000	39	0.10	18 400	36	0.09	-8
Vehicle costs (excluding fuel)	24 000	47	0.12	21 400	42	0.11	-11
Repairs and maintenance	35 500	70	0.18	29 200	57	0.15	-18
Total other working expenses	505 800	992	2.58	432 800	839	2.15	-14
Communication costs (phone and mail)	6 500	13	0.03	6 100	12	0.03	-5
Accountancy	4 800	9	0.02	4 500	9	0.02	-6
Legal and consultancy	4 300	9	0.02	2 660	5	0.01	-39
Other administration	7 200	14	0.04	7 300	14	0.04	2
Water charges (irrigation)	0	0	0.00	0	0	0.00	..
Rates	11 600	23	0.06	12 300	24	0.06	6
Insurance	9 700	19	0.05	9 200	18	0.05	-6
Other expenditure ²	21 000	41	0.11	10 100	20	0.05	-52
Total overhead expenses	65 100	128	0.33	52 300	101	0.26	-20
Total farm working expenses	705 900	1 384	3.60	616 000	1 194	3.06	-13
Wages of management	85 000	167	0.43	85 000	165	0.42	0
Depreciation	64 900	127	0.33	58 100	113	0.29	-10
Total farm operating expenses	855 800	1 678	4.37	759 200	1 471	3.77	-11
CALCULATED RATIOS							
Economic farm surplus (EFS ³)	231 000	453	1.18	264 500	513	1.31	
Farm working expenses/NCI ⁴	66%			61%			
EFS/total farm assets	2%			3%			
EFS less interest and lease/equity	-1%			-0.4%			
Interest+rent+lease/NCI	29%			28%			
EFS/NCI	22%			26%			

Notes

1 Figures may not add to totals due to rounding.

2 Includes Dairy NZ levy and Accident Compensation Corporation (ACC) employer levy.

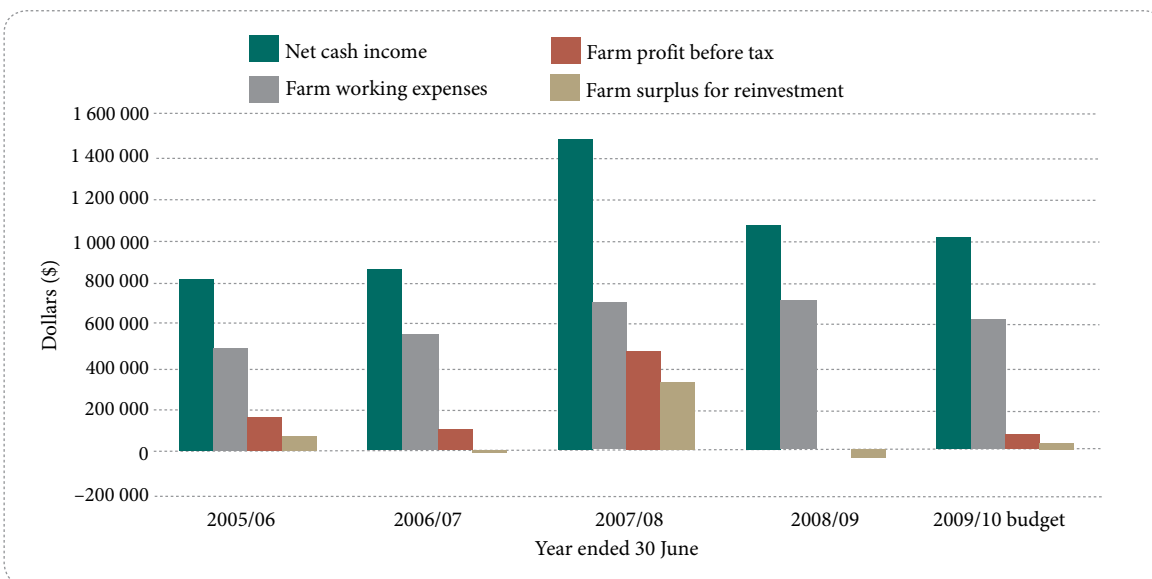
3 EFS (or earnings before interest and tax) is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: \$38 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of \$85 000.

4 Net cash income.

Symbol

.. Not applicable.

»» FIGURE 1: SOUTHLAND DAIRY MODEL PROFITABILITY TRENDS



FINANCIAL PERFORMANCE OF THE SOUTHLAND DAIRY MODEL FARM IN 2008/09

The cash operating surplus for the Southland dairy model farm decreased 53 percent to \$363 600 compared with 2007/08. The most significant reasons for the sharp decline in cash operating surplus were the decrease in final milksolids payout and continued high levels of farm working expenses. The model's stocking rate increased slightly to 2.8 cows per hectare and production per cow increased 1.3 percent on 2007/08 figures due to there being no drought. However, wet soil conditions and a limited desire to push production beyond their existing shareholding led most farmers not to milk their cows as long as they could have.

Total farm working expenses held steady at the high 2008 levels despite farmers' best efforts to minimise spending, especially later in the season when the implications of a low payout and decreased cash flow were realised.

REVENUE DOWN SIGNIFICANTLY

The 2008/09 milk production season was generally similar or better than 2007/08 over most of the region. Overall the model farm averaged 1070 kilograms of milksolids per hectare, up 4 percent on 2007/08. Increased production did little to buffer the effects of a much lower payout to June 2009: \$4.15 per kilogram of milksolids compared with \$6.62 in 2007/08. Other factors limiting production included cows calving in less than average condition (condition score 4.6) and greater cow losses from June to December 2008. A cold, wet May 2009 abruptly shortened the milking season.

Milk sales contributed 94 percent of the net cash income. Net stock revenue (sales less purchases) increased 14 percent. However, prices for calves disappointed many and ranged from \$22 to \$32 per head for four day old calves. Calf rearers had either left the industry or reduced their demand for calves, due to the high feed costs of rearing and slim margins achieved in 2007/08.

EXPENDITURE UP SLIGHTLY

Early in the 2008/09 season the predicted payout was \$7.00 per kilogram of milksolids. Farmers were cautious in their spending but with hindsight not as cautious as they would have liked had they known the final payout was going to be \$5.20 per kilogram of milksolids.

Farm working expenses increased 1 percent to \$705 900 in 2008/09 or \$3.60 per kilogram of milksolids. This accounted for 66 percent of net cash income up from 47 percent in 2007/08. Feed, fuel and fertiliser prices peaked in the spring and declined later in the 2008/09 season. The big ticket farm working expense items continued to be labour (up 7 percent to \$135 000) feed (\$197 800) and fertiliser (\$118 600).



LABOUR AVAILABILITY IMPROVING

Skilled farm workers were still in demand and the 7 percent increase in labour expenses between 2007/08 and 2008/09 has a large hangover component of the previous seasons' short supply of labour. Farmers and industry representatives reported receiving more applicants for advertised jobs going into the 2009/10 season. In 2009/10, farmers will look to negotiate tighter contracts or restructure existing labour arrangements to achieve savings without compromising the goodwill of their employees.

SUPPLEMENTARY FEED COSTS DECREASE OVERALL

Total feed costs were \$197 800 in 2008/09 or \$388 per cow. This was down 12 percent on 2007/08 feed expenses. In 2007/08, the price of supplements increased due to the drought-induced feed shortage, whereas in 2008/09, the situation was reversed and all feed types became less expensive. Table 4 shows various feed prices in Southland during the 2008/09 season. An increased supply of feed drove the price decline, as well as a reduction in demand from dairy farmers as they tried to bring farm working expenses down. More silage and baleage were made on farm using surplus grass available.

FERTILISER PRICES UP THEN DOWN

Despite significant increases in fertiliser prices, total fertiliser expenditure was only up 2 percent compared with 2007/08. This was due to less being applied and some farmers pre-purchasing fertiliser before the price rose. Soil fertility was maintained on farms and production losses in future years are unlikely due to existing high soil test levels and more use of soil fertility monitoring.

After peaking in spring 2008, fertiliser prices softened by June 2009. Di-ammonium Phosphate (DAP) peaked at over \$1700 per tonne in 2008 before dropping to around \$830 per tonne by June 2009. Urea peaked at \$1111 per tonne before declining to \$650 per tonne.

The model farm applied the equivalent of 104 kilograms of nitrogen per hectare. This was less than traditional rates.

FUEL PRICES

Expenditure on fuel increased 8 percent; this was less than expected given that diesel rose to near \$1.90 per litre, before coming back to around \$1.00 per litre. Savings in travel or strategic buying may explain this smaller than expected rise in expenditure.

DEBT SERVICING AND INTEREST RATES

The model has debt of \$18.60 per kilogram of milksolids. Banks report that their clients' average debt levels are around \$21 per kilogram of milksolids. At debt levels of the model farm (\$3 650 000 term and current account debt), any decrease in interest rate would be of significant financial assistance. However, the mix of floating and fixed interest rates of the model dairy farm means that the immediate impact of lowering market interest rates is reduced. Interest rates averaged 8.5 percent throughout the year. Debt servicing was \$1.60 per kilogram of milksolids and represented 29 percent of net cash income in 2008/09. No principal was repaid.

Debt servicing and farm working expenditure totalled \$5.20 per kilogram of milksolids in 2008/09. This is before any tax, capital, development or drawings.

NET RESULT DETERIORATES

Farm profit before tax decreased \$463 000 to just \$3400 in 2008/09. Consequently farmers spent less on development (down 41 percent) and capital (down 50 percent). However, following a good payout year in 2007/08 most plant and buildings are in good condition.

After tax, drawings, development and capital purchases, the model recorded a cash deficit of \$153 400, a significant downturn from 2007/08. This poor result will have wide-ranging implications for the Southland economy.

Farm surplus for reinvestment showed a deficit of \$41 200 for 2008/09 and opening equity decreased by \$2.3 million from July 2008 to June 2009 closing at \$5.1 million. This decrease in equity was due to a slight increase in indebtedness, mostly hardcore current account, but a significant decrease in land and buildings (back 23 percent), cow values and Fonterra share price.



BUDGET FINANCIAL PERFORMANCE OF THE SOUTHLAND DAIRY MODEL FARM IN 2009/10

The Southland dairy model's cash operating surplus is expected to increase by \$30 300 (up 8 percent) in 2009/10, compared with 2008/09. This results from an expected increase in production (up 3 percent) and a decrease in farm working expenditure (down 13 percent). This will go some way in compensating for the reduced payout of \$4.55 per kilogram of milksolids. Industry commentators suggest that increasing production while cutting costs will be difficult to achieve.

See Tables 2 and 3 for details of the model's expected budgets and expenditure in 2009/10. This budget was compiled in June 2009 and is based on farmer and industry expectation at that time.

REVENUE DECREASES AGAIN

Farms began the 2009/10 season with average grass covers and crop areas and above average amounts of supplementary feed on hand. Early winter was wet and cold which caused muddy conditions and feed utilisation problems. Grazing was plentiful and at a lower price than in 2008/09. However, cow condition is better in some areas, as there was no drought in 2008/09, and cows were dried off slightly earlier. Farmers are confident that an average pasture season and slightly higher stocking rate will allow them to achieve their production improvements.

Although production is expected to increase to 1100 kilograms of milksolids per hectare, (201 300 kilograms in total), the decrease in milksolids payout and to some extent cattle sales, sees net cash income fall 6 percent to \$1 009 900 (or \$1960 per cow).

PAYOUT DRIVING BEHAVIOUR

The reduced Fonterra milksolids payout in 2008/09 and expected \$4.55 per kilogram of milksolids for 2009/10 are driving the production goals and spending habits of dairy farmers. Farmers will be looking carefully at all expenditure items and seeking to get good deals before committing to purchases.

Of concern is the low early season advance payout that will cause some significant cash flow issues, as a large proportion of unavoidable productive expenditure occurs early in the season.

The escalation of farm working expenses from \$2.65 per kilogram of milksolids in 2005/06 to \$3.70 in 2007/08 is of concern to the industry.

FARM WORKING EXPENDITURE PER KILOGRAM OF MILKSOLIDS EXPECTED TO DECREASE

Farm working expenditure is expected to decrease by \$89 900 in 2009/10 compared with 2008/09. This equates to \$3.06 per kilogram of milksolids and will be the lowest farm working expenditure per kilogram of milksolids in four years if achieved. To reach this, farmers are looking to cut expenditure on animal health, feed, vehicles and repairs and maintenance. The most significant decrease is likely to be in fertiliser, down 30 percent on the 2008/09 year.

Interest rates are expected to ease to around 7.5 percent per annum. However, due to reduced advance payments, current account overdrafts will be higher and peak sooner which will negate some of the benefit of the interest rate drop.



NET RESULT IMPROVES

Farm profit before tax is expected to increase to \$65 700, compared with \$3400 in 2008/09. This is still a very low figure and insufficient to meet tax, capital, development and living costs, leaving a predicted cash deficit of \$21 800.

Return on assets is expected to increase to 3 percent as land prices decline by 23 percent. Return on equity will be -0.4 percent. The average equity of the 30 farms monitored is 50 percent.

»» TABLE 4: FEED PRICES IN SOUTHLAND

CROP	SEPTEMBER 2008	DECEMBER 2008	MAY 2009
Baleage (\$/bale)	110	65	52
Crushed barley (\$/tonne)	500	400	360
Standing grass (c/kg DM)	25	22	15
Brassica (c/kg DM)	..	28	22
GRAZING			
Calf (\$/week)	5.75	5.00	4.50
Heifer (\$/week)	9.00	8.75	7.75
Cow (\$/week)	28.00	26.00	21.00

Symbol
.. Not available.

INFORMATION ABOUT THE MODEL

The Southland dairy model represents approximately 660 dairy farms in Southland that supply milk to the Fonterra factory at Edendale.

This model has significantly increased in size, stocking rate and production over several years. In 1995, the average farm size was 130 hectares. In 2000/01, it was 182 hectares, made up of 152 hectares milking platform and a 30 hectares leased run-off. The model size was increased in the 2001/02 season to 162 hectares milking platform and a purchased 30 hectares run-off. From 2005/06 to 2007/08 the model was 178 hectares plus a 30 hectare run-off. Due to continuing dairy conversions and an increase in the average size, the model is now 183 hectare milking platform with a 68 hectare purchased run-off.

Many farms in the model have been producing milk for less than six years. The size and production from these farms is still increasing.

The model is created from information drawn from 30 dairy farms and a wide cross-section of agribusiness representatives. The aim of the model is to represent a typical owner-operated dairy farm in Southland. Data from the contributing properties is averaged and adjusted to represent the model dairy farm. Cash surplus/deficit figures include off-farm income, new borrowing, and other cash income.

For more information on the model contact: Trish.Burborough@maf.govt.nz

PUBLISHER

Ministry of Agriculture and Forestry
PO Box 2526, Wellington 6140, New Zealand
Tel +64 4 894 0100 or Freephone 0800 008 333
Email: policy.publications@maf.govt.nz
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