

NORTHLAND DAIRY

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

The Northland dairy model represents about 1200 spring calving dairy herds north of Auckland city.

KEY POINTS

- › A cold, wet winter/spring was experienced by much of Northland in 2008. This resulted in pugging and reduced pasture growth, which contributed to a 2 percent reduction in milksolids production to 77 800 kilograms or 640 kilograms per hectare. This decrease came despite a small increase in stocking rate from 2.2 to 2.3 cows per hectare.
- › Net cash income reduced 33 percent to \$423 000 primarily from the reduced milk price, but the decrease in milk production and weaker livestock values also negatively impacted on the result.
- › By the time Fonterra substantially revised the milk price down to \$5.20 per kilogram of milksolids in late January 2009 much of the season's farm expenditure was either already committed or spent. As a result the model's farm working expenses were up 11 percent for the 2008/09 season, to \$3.63 per kilogram of milksolids.
- › The "perfect storm" resulting from the above factors saw the model farm post a cash deficit of \$42 600. This deficit represents a \$136 300 (146 percent) decline on the 2007/08 year's result.
- › Heading into the 2009/10 season, farmer morale is low. This is in stark contrast to the high morale present in the region at the start of the 2008/09 season.

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

YEAR ENDED 30 JUNE	2005/06	2006/07	2007/08 ^R	2008/09	2009/10 BUDGET
Effective area (ha)	108	121	121	121	121
Cows wintered (head)	250	278	275	275	278
Replacement heifers (head)	66	66	73	69	70
Cows milked 15th December (head)	237	268	268	274	277
Stocking rate (cows/ha)	2.2	2.2	2.2	2.3	2.3
Total milksolids (kg)	64 790	77 816	79 372	77 785	79 729
Milksolids per ha (kg/ha)	600	643	656	643	659
Milksolids per cow milked (kg/cow)	273	290	296	284	288
MS advance to end June (\$/kg)	3.60	3.65	6.62	4.05	3.77
MS deferred payment (\$)	0.64	0.55	0.81	1.00	1.05
Net cash income (\$)	311 500	359 600	626 900	423 000	408 900
Farm working expenses (\$)	127 700	200 500	255 500	282 600	253 400
Farm profit before tax (\$)	92 300	75 700	242 900	22 800	37 900
Farm surplus for reinvestment ² (\$)	29 500	28 000	129 300	-12 800	-500

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*.



Photo: Bob Zuur.



»» TABLE 2: NORTHLAND 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	394 400	1 439	5.07	382 300	1 380	4.79	-3
Cattle	32 200	118	0.41	30 200	109	0.38	-6
Other farm income	1 000	4	0.01	1 000	4	0.01	0
LESS:							
Cattle purchases	4 500	16	0.06	4 500	16	0.06	0
Net cash income	423 000	1 544	5.44	408 900	1 476	5.13	-3
Farm working expenses	282 600	1 031	3.63	253 400	915	3.18	-10
Cash operating surplus	140 500	513	1.81	155 500	561	1.95	11
Interest	100 400	367	1.29	100 300	362	1.26	0
Rent and/or leases	0	0	0.00	0	0	0.00	..
Stock value adjustment	4 400	16	0.06	1 100	4	0.01	-76
Minus depreciation	21 700	79	0.28	18 500	67	0.23	-15
Farm profit before tax	22 800	83	0.29	37 900	137	0.48	66
Taxation	2 900	11	0.04	5 800	21	0.07	98
Farm profit after tax	19 900	73	0.26	32 100	116	0.40	61
Add back depreciation	21 700	79	0.28	18 400	67	0.23	-15
Reverse stock value adjustment	-4 400	-16	-0.06	-1 100	-4	-0.01	-76
Off-farm income	15 000	55	0.19	15 000	54	0.19	0
Discretionary cash	52 200	190	0.67	64 500	233	0.81	24
APPLIED TO:							
Net capital purchases	100 600	367	1.29	12 000	44	0.15	-88
Development	13 500	49	0.17	10 000	36	0.13	-26
Principal repayments	44 800	164	0.58	0	0	0.00	-100
Drawings	50 000	182	0.64	50 000	181	0.63	0
New borrowings	114 000	416	1.47	35 000	126	0.44	-69
Introduced funds	0	0	0.00	2 500	9	0.03	..
Cash surplus/deficit	-42 600	-156	-0.55	29 900	108	0.38	-170
Farm surplus for reinvestment²	-12 800	-47	-0.16	-500	-2	-0.01	-96
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	2 529 500	9 232	32.52	2 279 000	8 227	28.58	-10
Plant and machinery (opening)	144 600	528	1.86	122 900	444	1.54	-15
Stock valuation (opening)	380 700	1 389	4.89	385 200	1 390	4.83	1
Dairy company shares	538 900	1 967	6.93	354 800	1 281	4.45	-34
Other farm related investments (opening)	0	0	0.00	0	0	0.00	..
Total farm assets	3 593 700	13 116	46.20	3 141 800	11 342	39.41	-13
Total liabilities (opening)	1 246 900	4 551	16.03	1 326 100	4 787	16.63	6
Total equity (assets-liabilities)	2 346 900	8 565	30.17	1 815 700	6 555	22.77	-23

Notes

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Symbol

.. Not applicable.

»» TABLE 3: NORTHLAND 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	0	0	0.00	0	0	0.00	..
Casual wages	19 500	71	0.25	19 500	70	0.24	0
ACC	400	1	0.00	500	2	0.01	25
Total labour expenses	19 900	72	0.26	20 000	72	0.25	1
Animal health	16 500	60	0.21	15 000	54	0.19	-9
Breeding	9 400	34	0.12	8 900	32	0.11	-5
Dairy shed expenses	7 500	27	0.10	7 500	27	0.09	0
Electricity	11 300	41	0.14	11 800	43	0.15	5
Feed (hay and silage)	13 500	49	0.17	9 700	35	0.12	-28
Feed (feed crops)	6 500	24	0.08	6 500	23	0.08	0
Feed (grazing)	18 800	69	0.24	18 200	66	0.23	-4
Feed (other)	20 000	73	0.26	14 500	53	0.18	-28
Fertiliser	51 400	187	0.66	45 900	166	0.58	-11
Lime	4 500	17	0.06	4 100	15	0.05	-9
Freight (not elsewhere deducted)	2 200	8	0.03	2 000	8	0.03	-5
Regrassing costs	4 200	16	0.05	3 000	11	0.04	-29
Weed and pest control	4 100	15	0.05	3 900	14	0.05	-5
Fuel	12 600	46	0.16	12 600	46	0.16	0
Vehicle costs (excluding fuel)	13 400	49	0.17	12 800	46	0.16	-5
Repairs and maintenance	30 000	109	0.39	27 500	99	0.34	-8
Total other working expenses	226 000	825	2.91	204 000	737	2.56	-10
Communication costs (phone and mail)	3 000	11	0.04	2 900	10	0.04	-5
Accountancy	4 200	15	0.05	4 200	15	0.05	0
Legal and consultancy	2 700	10	0.04	2 400	9	0.03	-14
Other administration	2 200	8	0.03	2 200	8	0.03	0
Water charges (irrigation)	0	0	0.00	0	0	0.00	..
Rates	6 300	23	0.08	6 700	24	0.08	6
Insurance	6 000	22	0.08	6 200	22	0.08	3
Other expenditure ²	12 300	45	0.16	4 800	17	0.06	-61
Total overhead expenses	36 700	134	0.47	29 300	106	0.37	-20
Total farm working expenses	282 600	1 031	3.63	253 400	915	3.18	-10
Wages of management	73 900	270	0.95	69 400	251	0.87	-6
Depreciation	21 700	79	0.28	18 400	67	0.23	-15
Total farm operating expenses	378 200	1 380	4.86	341 200	1 232	4.28	-10
CALCULATED RATIOS							
Economic farm surplus (EFS ³)	49 300	180	0.63	68 700	248	0.86	
Farm working expenses/NCI ⁴	67%			62%			
EFS/total farm assets	1%			2%			
EFS less interest and lease/equity	-2%			-2%			
Interest+rent+lease/NCI	24%			25%			
EFS/NCI	12%			17%			

Notes

1 Figures may not add to totals due to rounding.

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

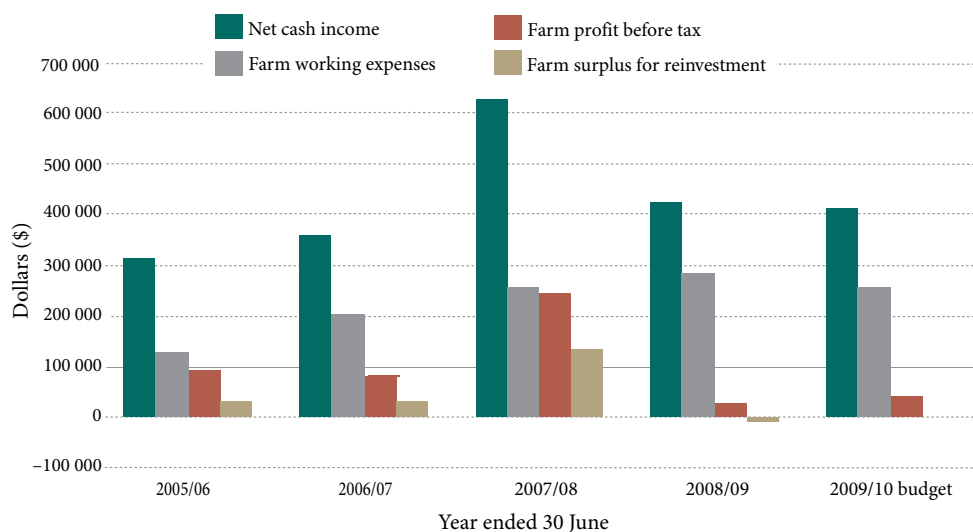
3 EFS (or earnings before interest and tax) is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: \$38 000 allowance for labour input plus 1 percent of opening total farm assets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

4 Net cash income.

Symbol

.. Not applicable.

»» FIGURE 1: NORTHLAND DAIRY MODEL PROFITABILITY TRENDS



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

The cash operating surplus dropped 62 percent, from \$371 400 to \$140 500. This was driven primarily by the scale and timing of Fonterra's revision of the forecast milk price to \$5.20 per kilogram of milksolids in late January. This was down from \$7.00 per kilogram of milksolids forecast at the start of the season and a subsequent November revision to \$6.00.

Based on an expectation of a higher milk price farmers had committed most "big ticket" expenditure by the time Fonterra's milk price began to deteriorate. Though many farmers took steps to constrain spending in the latter part of the season, farm working expenses still increased 11 percent from the previous year to \$282 600.

SHARP DECLINE IN REVENUE

Overall net cash income for the model farm was down 33 percent to \$423 000 for the 2008/09 season, driven by milksolids income, down 33 percent to \$394 400. This resulted from a sharp decline in milk price and a 2 percent fall in milksolids production due to unfavourable weather and growing conditions during winter and spring 2008.

Income from livestock sales fell 16 percent to \$32 200 due to both lower prices for stock sold and higher than usual deaths over the winter/spring period leading to less stock available for sale.

EXPENDITURE UP DESPITE LATE SEASON RESTRAINT

Farm working expenses on the model farm were up 11 percent to \$282 600 or \$3.63 per kilogram of milksolids for the season. This reflected the expectation of a higher milk price, additional expenses associated with the wet winter/spring period, and a 25 percent increase in fertiliser expenses to 66 cents per kilogram of milksolids. Farm working expenses for the 25 monitored farms ranged between \$2.29 per kilogram of milksolids and \$5.80 per kilogram of milksolids. At the extremes 12 percent of those monitored had farm working expenses over \$5.00 per kilogram of milksolids while 16 percent were under \$3.00 per kilogram of milksolids.

COLD WET SPRING INCREASES EXPENSES

There were a number of consequences from this year's poor spring. Total feed costs were up 26 percent as increased quantities of grass silage and palm kernel were used through the spring to fill feed gaps. Off-farm grazing costs were also up 27 percent. Total feed costs for the model were 75 cents per kilogram of milksolids, or 21 percent of total farm working expenses. However, on the monitored farms total feed costs varied from 13 cents to \$1.69 per kilogram of milksolids.



Cow reproductive performance was also affected with industry commentators estimating the average empty cow rate to be in the 16 to 18 percent range, despite some farmers increasing spending on reproductive treatments and extending the mating period.

A minority of farms experienced milk grading concerns with some resorting to extra somatic cell herd tests through the spring to identify problems. Despite these challenges, breeding expenses for the model farm were only up 3 percent to 12 cents per kilogram of milksolids.

The model farm's animal health expenses were flat for 2008/09. This result was only possible due to many farmers cancelling dry cow treatment programmes at the end of the season to try and hold expenses.

FERTILISER EXPENSES UP BUT AMOUNTS APPLIED DOWN

With the price of most fertiliser products peaking at historic highs in late 2008, Northland dairy farmers were forced to reassess their fertiliser programmes. Many cancelled their autumn capital fertiliser applications in an attempt to hold their total expenditure at last year's levels, while some also turned to increased application of lime allowing them to "mine" their soil's fertility.

There were several feed pinches this season and many farmers decided to apply nitrogen despite the cost. As a result the amounts applied were generally down on previous years however fertiliser expenses were still up 25 percent on 2007/08.

NET RESULT DECIMATED

Farm profit before tax fell 91 percent to \$22 800 from the previous season's result of \$242 900. Interest costs remain flat despite some reduction in interest rates as the degree of indebtedness across the region increases. Increased expenditure applied to capital and development projects incurred or committed pre-Christmas, (on the expectation of continued high milk prices) had to be funded via new borrowings which are up 75 percent on the previous year to \$114 000.

Overall, the Northland model farm finishes the year with a cash deficit of \$42 600, despite a reduction in drawings of 9 percent. This overall result reflects the monitored farms results where only five of these farms returned a positive result in 2008/09.



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

The Northland dairy model farm is budgeting a cash operating surplus of \$155 500. This is an 11 percent increase compared with the previous year's result of \$140 500. This is based on an anticipated 3 percent increase in production and an expected 10 percent decrease in farm working expenses to \$253 400 or \$3.18 per kilogram of milksolids compared with \$3.63 per kilogram of milksolids in 2008/09.



REVENUE UNDER PRESSURE

Milk production is anticipated to increase approximately 3 percent to 79 700 kilograms of milksolids in the 2009/10 season. However, this gain fails to offset an expected decline in milk price and further falls in the value of cull cows and bobby calves. As a result net cash income is budgeted to fall 3 percent to \$408 900 from \$423 000 in the 2009/10 season.

EXPENDITURE EXPECTED TO BE CONSTRAINED

Given the subdued milk price outlook indicated by milk processors for 2009/10 it is expected that expenditure will be tightly controlled in 2009/10. Monitored farmers indicated they will seek to balance increasing production with holding expenses. The Northland dairy model farm is budgeting to make savings across the board. In particular, feed expenses are budgeted to be down a total of 17 percent to \$49 000 and repairs and maintenance to be down 8 percent to \$27 500 from \$30 000 in 2008/09. Fertiliser is also budgeted to be down 11 percent to \$46 000, which is based primarily on an expectation of reduced unit prices.

Other expense cuts include animal health, breeding, freight, regrassing expenses, weed and pest, and overhead expenses. Expenses anticipated to increase in 2009/10 include electricity, rates and insurance. Budgeted farm working expenses on the monitored farms vary between \$2.08 and \$4.72 per kilogram of milksolids.

NET RESULT IMPROVES BUT REMAINS POOR

Farm profit before tax is expected to improve 66 percent from \$22 800 in 2008/09 to \$37 900 in 2009/10. To balance this budget the model farm is expected to change from principal to interest-only debt servicing and make major reductions in capital purchases, (down 88 percent to \$12 100 from \$100 600), and development expenditure, (down 26 percent to \$10 000). The model is also budgeted to show continued restraint in drawings.

After the above changes, the budgeted cash surplus for the Northland dairy model farm is expected to be \$29 900 for the 2009/10 season. Without off-farm income, new borrowings and some introduced funds, the model farm operates at a cash loss of almost \$22 600.

INFORMATION ABOUT THE MODEL

The Northland model represents approximately 1200 spring calving dairy herds north of Auckland city.

The model is created from information drawn from 25 dairy farms and a wide cross section of agribusiness representatives. The aim of the model is to typify an average dairy farm for Northland. Budget figures are averaged from the contributing properties and adjusted to represent a real dairy farm. Income figures include off-farm income, new borrowing, and other cash income.

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