

# LOWER NORTH ISLAND DAIRY

This report contains the key results from the Ministry of Agriculture and Forestry's 2008 dairy monitoring programme. The full Pastoral Monitoring Report 2008 will be available in December 2008.

## KEY POINTS

- › Drought affecting most parts of the region in summer/autumn 2008 led to a third consecutive year of lower than average production.
- › Farmers fed supplements to maintain milk production, which decreased by only 1 percent overall in 2007/08. However, production varied widely and individual properties varied from a 20 percent increase to a 20 percent decrease on the previous year.
- › The record payout resulted in a cash operating surplus of \$491 000, up 158 percent on 2006/07.
- › High feed costs, due to the drought, reduced potential farm profits with the feed cost on the model farm increasing 46 percent to \$383 per cow.
- › Farm profit before tax in 2007/08 increased more than eight times to \$311 000, and much of the cash surplus is expected to be applied to reducing overdrafts accumulated in the two previous poor seasons.
- › The cash operating surplus in 2008/09 is forecast to decline by 32 percent to \$335 000, due to the forecast reduction in milk payout. This is despite production being forecast to increase by 2.2 percent to near normal levels.
- › Expenditure is forecast to continue increasing in 2008/09 due primarily to higher fertiliser and fuel prices, and higher charges for grazing and silage.

TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND FORECAST FOR THE LOWER NORTH ISLAND DAIRY MODEL FARM

Year ended 30 June	2006/07	2007/08	2008/09 forecast
Effective area (ha)	130	130	130
Cows wintered (head)	370	370	370
Replacement heifers (head)	85	85	85
Cows milked 15 December (head)	360	360	360
Stocking rate (cows/ha)	2.8	2.8	2.8
Total milksolids (kg)	114 400	113 500	116 000
Milksolids per ha (kg/ha)	880	873	892
Milksolids per cow milked (kg/cow)	318	315	322
Milksolids advance to 30 June (\$/kg)	3.65	6.62	5.41
Milksolids deferred payment (\$)	0.50	0.81	1.00
Net cash income (\$)	518 831	913 094	794 640
Farm working expenses (\$)	328 363	422 394	459 338
Farm profit before tax (\$)	35 968	310 850	159 740
Farm surplus for reinvestment <sup>1</sup> (\$)	1 351	232 947	51 530

### Note

<sup>1</sup> 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.

TABLE 2: LOWER NORTH ISLAND DAIRY MODEL BUDGET

	2007/08			2008/09 forecast		
	Whole farm (\$)	Per cow (\$)	Per kg of milksolids (\$)	Whole farm (\$)	Per cow (\$)	Per kg of milksolids (\$)
<b>Revenue</b>						
Milksolids	844 034	2 345	7.44	741 060	2 059	6.39
Cattle	72 560	202	0.64	57 080	159	0.49
Other farm income	2 000	6	0.02	2 000	6	0.02
<b>Less:</b>						
Cattle purchases	5 500	15	0.05	5 500	15	0.05
<b>Net cash income</b>	<b>913 094</b>	<b>2 536</b>	<b>8.04</b>	<b>794 640</b>	<b>2 207</b>	<b>6.85</b>
<b>Farm working expenses</b>	<b>422 394</b>	<b>1 173</b>	<b>3.72</b>	<b>459 338</b>	<b>1 276</b>	<b>3.96</b>
<b>Cash operating surplus</b>	<b>490 700</b>	<b>1 363</b>	<b>4.32</b>	<b>335 302</b>	<b>931</b>	<b>2.89</b>
Interest	144 850	402	1.28	141 000	392	1.22
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	0	0	0.00	0	0	0.00
Minus depreciation	35 000	97	0.31	34 563	96	0.30
<b>Farm profit before tax</b>	<b>310 850</b>	<b>863</b>	<b>2.74</b>	<b>159 740</b>	<b>444</b>	<b>1.38</b>
Taxation	50 903	141	0.45	78 772	219	0.68
<b>Farm profit after tax</b>	<b>259 947</b>	<b>722</b>	<b>2.29</b>	<b>80 968</b>	<b>225</b>	<b>0.70</b>
Add back depreciation	35 000	97	0.31	34 563	96	0.30
Reverse stock value adjustment	0	0	0.00	0	0	0.00
Off-farm income	5 000	14	0.04	5 000	14	0.04
<b>Discretionary cash</b>	<b>299 947</b>	<b>833</b>	<b>2.64</b>	<b>120 530</b>	<b>335</b>	<b>1.04</b>
<b>Applied to:</b>						
Net capital purchases	30 000	83	0.26	25 000	69	0.22
Development	17 000	47	0.15	17 000	47	0.15
Principal repayments	26 716	74	0.24	25 683	71	0.22
Drawings	62 000	172	0.55	64 000	178	0.55
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	0	0	0.00	13 235	37	0.11
<b>Cash surplus/deficit</b>	<b>164 231</b>	<b>456</b>	<b>1.45</b>	<b>2 083</b>	<b>6</b>	<b>0.02</b>
<b>Farm surplus for reinvestment<sup>1</sup></b>	<b>232 947</b>	<b>647</b>	<b>2.05</b>	<b>51 530</b>	<b>143</b>	<b>0.44</b>
<b>Assets and Liabilities</b>						
Farm, forest and building (opening)	3 700 000	10 278	32.60	4 446 000	12 350	38.33
Plant and machinery (opening)	150 000	417	1.32	147 500	410	1.27
Stock valuation (opening)	865 435	2 404	7.62	865 435	2 404	7.46
Dairy company shares	797 825	2 216	7.03	654 475	1 818	5.64
Other farm related investments (opening)	0	0	0.00	0	0	0.00
<b>Total farm assets (opening)</b>	<b>5 513 260</b>	<b>15 315</b>	<b>48.6</b>	<b>6 113 410</b>	<b>16 982</b>	<b>52.70</b>
<b>Total liabilities (opening)</b>	<b>1 580 000</b>	<b>4 389</b>	<b>13.92</b>	<b>1 500 000</b>	<b>4 167</b>	<b>12.93</b>
<b>Total equity (assets-liabilities)</b>	<b>3 933 260</b>	<b>10 926</b>	<b>34.65</b>	<b>4 613 410</b>	<b>12 815</b>	<b>39.77</b>

**Note**

<sup>1</sup> Farm surplus for reinvestment is discretionary cash less off-farm income and drawings.

**TABLE 3: LOWER NORTH ISLAND DAIRY MODEL EXPENDITURE**

	2007/08			2008/09 forecast		
	Whole farm (\$)	Per cow (\$)	Per kg of milksolids (\$)	Whole farm (\$)	Per cow (\$)	Per kg of milksolids (\$)
<b>Farm working expenses</b>						
Permanent wages	35 000	97	0.31	38 000	106	0.33
Casual wages	5 000	14	0.04	7 000	19	0.06
ACC	1 053	3	0.01	952	3	0.01
<b>Total labour expenses</b>	<b>41 053</b>	<b>114</b>	<b>0.36</b>	<b>45 952</b>	<b>128</b>	<b>0.40</b>
Animal health	19 800	55	0.17	21 500	60	0.19
Breeding	11 880	33	0.10	13 000	36	0.11
Dairy shed expenses	7 500	21	0.07	8 000	22	0.07
Electricity	13 400	37	0.12	15 200	42	0.13
Feed (hay and silage)	67 200	187	0.59	65 000	181	0.56
Feed (feed crops)	5 200	14	0.05	6 000	17	0.05
Feed (grazing)	40 510	113	0.36	49 940	139	0.43
Feed (other)	25 000	69	0.22	19 600	54	0.17
Fertiliser	65 300	181	0.58	78 300	218	0.68
Lime	2 250	6	0.02	2 250	6	0.02
Freight (not elsewhere deducted)	6 000	17	0.05	7 000	19	0.06
Regrassing costs	8 000	22	0.07	8 000	22	0.07
Weed and pest control	4 300	12	0.04	5 000	14	0.04
Fuel	13 500	38	0.12	15 000	42	0.13
Vehicle costs (excluding fuel)	13 000	36	0.11	13 500	38	0.12
Repairs and maintenance	36 500	101	0.32	36 500	101	0.31
<b>Total other working expenses</b>	<b>339 340</b>	<b>943</b>	<b>2.99</b>	<b>363 790</b>	<b>1 011</b>	<b>3.14</b>
Communication costs (phone & mail)	3 600	10	0.03	4 000	11	0.03
Accountancy	4 700	13	0.04	5 000	14	0.04
Legal and consultancy	5 000	14	0.04	5 500	15	0.05
Other administration	2 600	7	0.02	2 750	8	0.02
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	12 000	33	0.11	13 000	36	0.11
Insurance	5 000	14	0.04	5 500	15	0.05
Other expenditure <sup>1</sup>	9 101	25	0.08	13 846	38	0.12
<b>Total overhead expenses</b>	<b>42 001</b>	<b>117</b>	<b>0.37</b>	<b>49 596</b>	<b>138</b>	<b>0.43</b>
<b>Total farm working expenses</b>	<b>422 394</b>	<b>1 173</b>	<b>3.72</b>	<b>459 338</b>	<b>1 276</b>	<b>3.96</b>
Wages of management	85 000	236	0.75	85 000	236	0.73
Depreciation	35 000	97	0.31	34 563	96	0.30
<b>Total farm operating expenses</b>	<b>542 394</b>	<b>1 507</b>	<b>4.78</b>	<b>578 900</b>	<b>1 608</b>	<b>4.99</b>
<b>Calculated Ratios</b>						
Economic farm surplus (EFS <sup>2</sup> )	370 700	1 030	3.27	215 740	599	1.86
Farm working expenses/NCI <sup>3</sup>	46%			58%		
EFS/total farm assets	6.7%			3.5%		
EFS less interest and lease/equity	5.7%			1.6%		
Interest + rent + lease/NCI	15.9%			17.7%		
EFS/NCI	40.6%			27.1%		

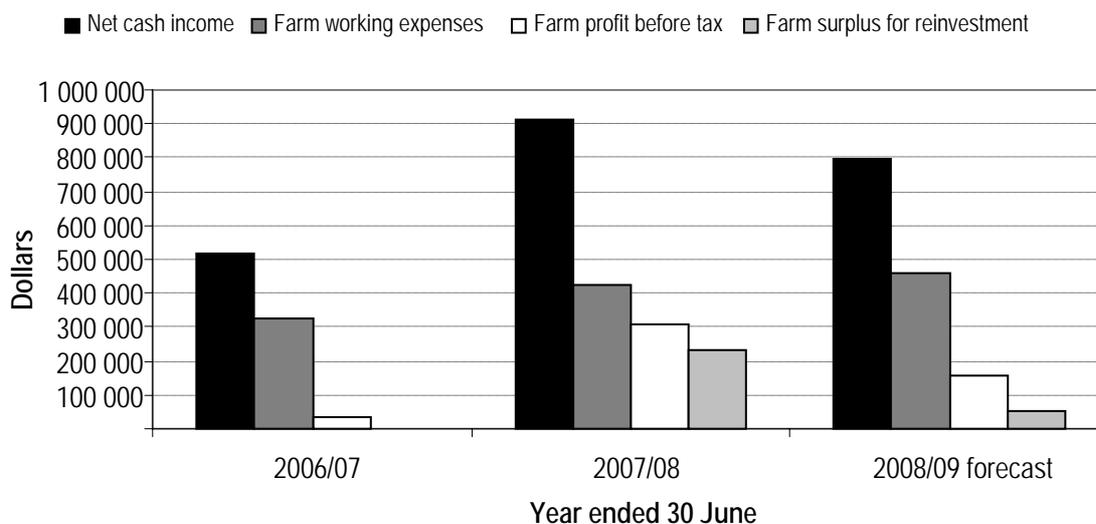
**Notes**

1 Includes Dairy NZ levy and employers ACC.

2 EFS (or earnings before 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 working assets to a maximum of \$85 000.

3 Net cash income.

FIGURE 1: LOWER NORTH ISLAND DAIRY MODEL FARM PROFITABILITY TRENDS



## INFORMATION ABOUT THE MODEL

This model represents approximately 1080 seasonal supply dairy farms in the bottom half of the North Island, including the regions of Manawatu, Horowhenua, Wairarapa and Southern Hawkes Bay. The dairy farms supply the Fonterra Co-operative Dairy Company.

Generally, they are well-developed farms, have good soil fertility levels, and a modest level of well-maintained buildings, plant and equipment. On average, the farms are 130 effective hectares in size, milking 360 cows. They have an additional runoff of 15 hectares.

Most of the lower North Island has reliable summer rainfall, however many farms in the Manawatu and East Coast are by New Zealand standards, somewhat drought prone. Approximately 300 farms, mainly in South Wairarapa, Hawkes Bay and Manawatu, have irrigation.

The model budget is prepared for an owner-operator farm, with labour employed, and represents an estimated 70 to 80 percent of dairy farms – the other 20 to 30 percent fitting into the sharemilking or partnership categories.

The model is created from information drawn from 28 dairy farms and a wide cross section of agribusiness representatives. The aim of the model is to typify an average dairy farm for the Lower North Island. 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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