

# WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF



This report contains the key results from MAF's 2010 sheep and beef monitoring programme. Please note that the sample of farms has changed between 2008/09 and 2009/10. Caution should be taken when comparing data between these two years.

## KEY POINTS

- › Lambing increased 16 percentage points to 134 percent in 2009/10, due to mild weather from mid-August to September, which allowed exceptional lamb survival. Lambing is expected to drop back to 125 percent in 2010/11, as ewes are in less than ideal condition on many farms after the dry summer of 2010, and a return to more typical lambing weather is expected.
- › Beef finishing cycles were delayed due to cool spring weather in 2009. This delayed and spread out the cash flows encouraging higher procurement competition and pricing as the season progressed.
- › Farm working expenditure in 2009/10 increased slightly due to increased spending on cash crops and fertiliser in the region and is budgeted to increase 4 percent in 2010/11.
- › Farm surplus for re-investment in 2009/10 fell to \$20 700 and is expected to decrease further to \$19 200 in 2010/11. This is due to decreases in sheep and cattle revenue and a budgeted increase in farm working expenses.
- › Farmers are nervously optimistic going into 2010/11. They want to see the financial results before making spending decisions.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL

YEAR ENDED 30 JUNE	2006/07	2007/08	2008/09 <sup>a</sup>	2009/10 <sup>1</sup>	2010/11 BUDGET
Effective area (ha)	208	220	368	368	368
Breeding ewes (head)	1 175	1 066	1 679	1 187	1 184
Replacement ewe hoggets (head)	316	284	426	435	433
Other sheep (head)	317	326	488	737	542
Breeding cows (head)	0	0	0	0	0
Rising 1-year cattle (head)	105	105	110	98	101
Other cattle (head)	70	76	113	133	104
Opening sheep stock units (ssu)	1 620	1 495	2 321	2 345	2 084
Opening cattle stock units	838	961	1 389	1 545	1 436
Opening total stock units (su)	2 457	1 456	3 488	3 890	3 520
Stocking rate (stock unit/ha)	11.8	11.2	10	10.6	9.6
Ewe lambing (%)	122	121	118	134	125
Average lamb price (\$/head)	54.88	58.04	94.69	86.58	88.28
Average store lamb price (\$/head)	44.89	51.18	78.75	65.00	72.00
Average prime lamb price (\$/head)	56.12	60.12	94.69	86.14	87.30
Average wool price (\$/kg)	2.19	2.20	2.20	2.32	2.20
Total wool produced (kg)	8 231	7 750	10 969	11 945	12 157
Wool production (kg/ssu)	5.08	5.19	4.73	5.09	5.83
Average rising 2-year steer (\$/head)	798	724	891	872	890
Average cull cow (\$/head)	0	0	0	0	0
Net cash income (\$)	172 529	189 309	351 828	407 563	401 110
Farm working expenses (\$)	110 841	122 347	200 414	215 285	223 401
Farm profit before tax (\$)	30 710	6 334	81 000	30 728	23 372
Farm surplus for reinvestment (\$) <sup>2</sup>	-12 919	-8 994	35 184	20 678	19 239

### Notes

- 1 The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.
- 2 Farm surplus for reinvestment represents the cash available from the farming business, after meeting living costs, which is available for investment on-farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

### Symbol

R Note that 2008/09 figures have been scaled up to allow comparison with the new farm sample used in 2009/10.



»» TABLE 2: WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL BUDGET

	2009/10			2010/11 BUDGET		
	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT <sup>1</sup> (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT <sup>1</sup> (\$)
<b>REVENUE</b>						
Sheep	278 640	757	118.84	311 672	847	149.54
Wool	27 712	75	11.82	26 745	73	12.83
Cattle	202 685	551	131.19	193 720	526	134.95
Grazing income (including hay and silage sales)	31 668	86	13.51	35 942	98	17.24
Other farm income	54 471	148	14.00	57 790	157	16.42
<b>LESS:</b>						
Sheep purchases	86 730	236	36.99	123 750	336	59.37
Cattle purchases	101 484	276	65.69	101 010	274	70.37
<b>Net cash income</b>	<b>406 963</b>	<b>1 106</b>	<b>104.63</b>	<b>401 110</b>	<b>1 090</b>	<b>113.96</b>
<b>Farm working expenses</b>	<b>215 285</b>	<b>585</b>	<b>55.35</b>	<b>223 401</b>	<b>607</b>	<b>63.47</b>
<b>Cash operating surplus</b>	<b>191 678</b>	<b>521</b>	<b>49.28</b>	<b>177 709</b>	<b>483</b>	<b>50.49</b>
Interest	91 612	249	23.55	95 261	259	27.07
Rent and/or leases	4 262	12	1.10	4 390	12	1.25
Stock value adjustment	-37 533	-102	-9.65	-26 594	-72	-7.56
Minus depreciation	27 544	75	7.08	28 092	76	7.98
<b>Farm profit before tax</b>	<b>30 728</b>	<b>83</b>	<b>7.90</b>	<b>23 372</b>	<b>64</b>	<b>6.64</b>
Taxation	14 407	39	3.70	306	1	0.09
<b>Farm profit after tax</b>	<b>16 321</b>	<b>44</b>	<b>4.20</b>	<b>23 066</b>	<b>63</b>	<b>6.55</b>
<b>ALLOCATION OF FUNDS</b>						
Add back depreciation	27 544	75	7.08	28 092	76	7.98
Reverse stock value adjustment	37 533	102	9.65	26 594	72	7.56
Income equalisation	0	0	0.00	0	0	0.00
Off-farm income	10 154	28	2.61	10 153	28	2.88
<b>Discretionary cash</b>	<b>91 552</b>	<b>249</b>	<b>23.54</b>	<b>87 904</b>	<b>239</b>	<b>24.97</b>
<b>APPLIED TO:</b>						
Net capital purchases	5 418	15	1.39	6 394	17	1.82
Development	0	0	0.00	0	0	0.00
Principal repayments	0	0	0.00	0	0	0.00
Drawings	60 720	165	15.61	58 512	159	16.62
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	0	0	0.00	0	0	0.00
<b>Cash surplus/deficit</b>	<b>25 414</b>	<b>69</b>	<b>6.53</b>	<b>22 998</b>	<b>62</b>	<b>6.53</b>
<b>Farm surplus for reinvestment<sup>2</sup></b>	<b>20 678</b>	<b>56</b>	<b>5.32</b>	<b>19 239</b>	<b>52</b>	<b>5.47</b>
<b>ASSETS AND LIABILITIES</b>						
Farm, forest and building (opening)	5 003 067	13 595	1 286.28	4 502 760	12 236	1 279.29
Plant and machinery (opening)	141 959	386	36.50	145 611	396	41.37
Stock valuation (opening)	391 996	1 065	100.78	354 463	963	100.71
Other produce on hand (opening)	0	0	0.00	0	0	0.00
<b>Total farm assets (opening)</b>	<b>5 537 022</b>	<b>15 046</b>	<b>1 423.55</b>	<b>5 002 834</b>	<b>13 595</b>	<b>1 421.37</b>
<b>Total assets (opening)</b>	<b>5 589 333</b>	<b>15 188</b>	<b>1 437.00</b>	<b>4 983 306</b>	<b>13 542</b>	<b>1 415.82</b>
Total liabilities (opening)	1 151 913	3 130	296.15	1 063 600	2 890	302.18
<b>Total equity (farm assets - liabilities)</b>	<b>4 385 109</b>	<b>11 916</b>	<b>1 127.40</b>	<b>3 939 234</b>	<b>10 704</b>	<b>1 119.19</b>

**Notes**

1 Sheep stock units are used in the per stock calculation for sheep and wool income and sheep purchases. Cattle stock units are used for cattle income and purchases. The remainder of the time total stock units are used.

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

»» TABLE 3: WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL EXPENDITURE

	2009/10			2010/11 BUDGET		
	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT <sup>1</sup> (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT <sup>1</sup> (\$)
<b>FARM WORKING EXPENSES</b>						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	4 048	11	1.04	3 680	10	1.05
ACC	263	1	0.07	172	0	0.05
<b>Total labour expenses</b>	<b>4 311</b>	<b>12</b>	<b>1.11</b>	<b>3 852</b>	<b>10</b>	<b>1.09</b>
Animal health	9 839	27	2.53	10 650	29	3.03
Breeding	683	2	0.18	723	2	0.21
Electricity	4 784	13	1.23	4 931	13	1.40
Feed (hay and silage)	6 992	19	1.80	7 360	20	2.09
Feed (feed crops)	5 520	15	1.42	5 888	16	1.67
Feed (grazing)	2 944	8	0.76	3 128	9	0.89
Feed (other)	2 392	7	0.61	2 576	7	0.73
Fertiliser	50 621	138	13.01	55 309	150	15.71
Lime	3 720	10	0.96	4 030	11	1.14
Cash crop expenses <sup>2</sup>	17 803	48	4.58	18 823	51	5.35
Freight (not elsewhere deducted)	8 096	22	2.08	8 464	23	2.40
Regrassing costs	5 520	15	1.42	5 998	16	1.70
Shearing expenses	13 505	37	5.76	11 672	32	5.60
Weed and pest control	4 858	13	1.25	4 997	14	1.42
Fuel	10 672	29	2.74	10 966	30	3.12
Vehicle costs (excluding fuel)	9 678	26	2.49	10 010	27	2.84
Repairs and maintenance	17 590	48	4.52	17 388	47	4.94
<b>Total other working expenses</b>	<b>175 217</b>	<b>476</b>	<b>45.05</b>	<b>182 914</b>	<b>497</b>	<b>51.97</b>
Communication costs (phone and mail)	2 944	8	0.76	2 944	8	0.84
Accountancy	4 048	11	1.04	4 048	11	1.15
Legal and consultancy	2 208	6	0.57	2 208	6	0.63
Other administration	1 472	4	0.38	1 509	4	0.43
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	13 984	38	3.60	14 904	41	4.23
Insurance	6 992	19	1.80	6 624	18	1.88
ACC employer	2 131	6	0.55	2 312	6	0.66
Other expenditure	1 978	5	0.51	2 087	6	0.59
<b>Total overhead expenses</b>	<b>35 757</b>	<b>97</b>	<b>9.19</b>	<b>36 636</b>	<b>100</b>	<b>10.41</b>
<b>Total farm working expenses</b>	<b>215 285</b>	<b>585</b>	<b>55.35</b>	<b>223 401</b>	<b>607</b>	<b>63.47</b>
<b>CALCULATED RATIOS</b>						
Economic farm surplus (EFS <sup>3</sup> )	51 601	140	13.27	48 023	130	13.64
Farm working expenses/NCI <sup>4</sup>	53%			56%		
EFS/total farm assets	0.9%			1.0%		
EFS less interest and lease/equity	-1.0%			-1.3%		
Interest+rent+lease/NCI	23.6%			24.8%		
EFS/NCI	12.7%			12.0%		
Wages of management	75 000	204	19.28	75 000	204	21.31

**Notes**

1 Shearing expenses per stock unit based on sheep stock units.

2 Includes forestry expenses.

3 EFS 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: \$31 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of \$75 000.

4 Net cash income.

## FINANCIAL PERFORMANCE OF THE WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF FARM MODEL IN 2009/10

The cash operating surplus for the western lower North Island intensive sheep and beef farm model increased by 27 percent to \$191 700 in 2009/10. Lambing income, grazing income and other farm income (including cropping, rebates and other farm income) all increased. Farm working expenses increased slightly, which diluted the influence of higher revenue on the cash operating surplus.



After one of the coldest and wettest winters on record, the region experienced an unusually mild and dry period over August to September 2009. This mild weather had a positive effect on lambing and lifted feed covers coming out of winter. October 2009 to January 2010 was an unusually cold and wet period which reduced pasture growth, livestock performance and crop establishment and set back the finishing cycle for lambs by about four to six weeks. Dry weather through January to March 2010 again slowed pasture growth and further restricted the turnover of finishing stock. More typical rainfall and above average temperatures returned in mid-May, boosting crop and pasture growth.

### REVENUE OUTCOME POSITIVE

The net cash income for 2009/10 increased by 16 percent to \$407 600. This is largely attributed to increased dairy grazing and increased crop sales, despite the cool, wet weather reducing yields. Cattle revenue held steady when compared with previous years.

### EXCEPTIONAL LAMBING

A mild spring in 2009 led to an exceptional year for lambing in the western lower North Island where lambing percentages reached 134 percent. Although the weather was mild from August to September, a late snow storm in mid-September had an adverse effect on hogget lambing, which decreased to 53 percent.

### SHEEP RETURNS INCREASE SLIGHTLY

Net sheep revenue (sales less purchases) increased slightly in 2009/10 to \$191 900. The unusually cold and wet weather in November 2009 to January 2010 slowed pasture growth and restricted the turnover of finishing stock. This maintained the average lamb price at \$86 per head.

The North Island drought in late summer 2010 brought drier than usual weather to the region, which allowed the ground to dry out and improve live-weight gain. Lambs were sold earlier than usual to take advantage of favourable prices. This reduced hogget numbers at the 30 June 2010 balance date by 27 percent, resulting in the reduction in sheep stock units from 2345 at opening to 2203 at the end of 2009/10.

### WOOL REVENUE STEADY

Wool revenue experienced little change in 2009/10. Revenue was \$27 700 in 2009/10 with wool sold on the monitored farms averaging 5.09 kilograms per sheep stock unit. This is higher than the 4.73 kilograms per sheep stock unit in 2008/09, when farmers held on to some bales hoping for improved prices in future. The wool price increased to an average of \$2.32 per kilogram. No wool was carried over to 2010/11 on the model farm.

### CATTLE FINISHING DELAYED

The intensity of cattle finishing in the 2009/10 model has increased slightly to 4.19 cattle stock units per hectare. As the year progressed the cattle schedule lifted and so did the price of store cattle, buoyed by both the stronger schedule and plentiful feed conditions. This resulted in some trading operations unable to re-stock with their full replacement numbers by the 30 June balance date. Net cattle revenue (sales less purchases) held steady in 2009/10 at \$101 200.

### YIELDS DOWN DUE TO UNFAVOURABLE WEATHER

Grazing income was \$86 per hectare in 2009/10 and on the monitored farms there was an increase in the number of farms earning income from dairy support. Many farms in the region also graze finishing lambs and cattle on contract.

Cropping is an important source of income for farms in the western lower North Island. In 2008/09, a spike in the tonnage grown and subsequent price collapse meant there was more grain in storage carrying over into the 2009/10 market. While this depressed contract prices in spring 2009, cold and wet conditions reduced establishment and crop development. Prices for feed barley were harvested at an average of \$280 to \$300 per tonne. Yields are described as average to poor and were 10 to 20 percent lower than the previous year. It was a good year for making hay and baleage from summer surpluses, which also contributed to other farm income.

### MORE GRAZING, MORE ASSOCIATED EXPENSES

Total farm working expenditure was \$585 per hectare in 2009/10 with farmers endeavouring to restrict spending wherever possible.

In 2009/10, total labour expenses were \$12 per hectare. Since the credit crisis in 2008, many farms have cut casual labour expenses to manage farm working expenditure. In this case, casual labour has been replaced with more input from family members.

### UNFAVOURABLE WEATHER INCREASES CROPPING EXPENSES

Cash crop expenses have risen to \$17 800 in 2009/10 despite a disappointing cropping year. Wet weather in early spring delayed some planting and created severe drainage problems. Wet soils resulted in poorly developing crops, some of which had to be resown and some were eventually ploughed back into the soil or taken for whole-crop silage.

### LARGE INCREASES IN FERTILISER EXPENSES

Fertiliser expenditure was \$138 per hectare. This has slightly increased to cover dairy grazing and cropping requirements as well as a response to lower fertiliser prices and limited applications in previous years. The higher relative phosphate fertiliser prices has also caused an increase in lime applications to \$10 per hectare in a bid to avoid purchasing more expensive fertiliser.

### TIGHT BUDGETS SHOW PRIORITISATION OF OTHER EXPENSES

Although there are increases in some expenses, farmers are still maintaining a tight rein on budgets to better prioritise farm working expenditure. Discretionary items such as regrassing (\$15 per hectare), repairs and maintenance (\$48 per hectare) and weed and pest control (\$13 per hectare) were held at low levels.

»»» TABLE 4: WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL CASH FARM INCOME

YEAR ENDED 30 JUNE	2006/07 (\$)	2007/08 (\$)	2008/09 (\$)	2009/10 (\$) <sup>1</sup>	2010/11 BUDGET (\$)
Sheep sales less purchases	81 197	81 744	110 470	191 910	187 922
Cattle sales less purchases	44 962	72 337	60 404	101 201	92 710
Wool	18 025	17 048	14 428	27 712	26 745
Grazing income (including hay and silage sales)	3 700	9 180	8 130	31 668	35 942
Other income	14 700	9 000	16 900	54 471	57 790
Net cash income	172 529	189 309	351 828	407 563	401 110

**Note**

<sup>1</sup> The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

## NET RESULTS LEAVES FARMERS WITH A BIT MORE CASH IN POCKET

Farm profit before tax in the western lower North Island farm model for 2009/10 was \$30 700. No principal repayments were made on the model. Net capital purchases were approximately \$5400 in 2009/10 as farmers displayed conservatism regarding asset acquisition.

The farm surplus for reinvestment was \$20 700 leaving some breathing room for farmers, although the final result will depend on cattle restocking activity around the 30 June balance date.

## BUDGET FINANCIAL PERFORMANCE OF THE WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF FARM MODEL IN 2010/11

The cash operating surplus is expected to decrease 7 percent in 2010/11 from \$191 700, to \$177 700. This is due to increases in stock purchases and farm working expenses offsetting smaller increases in dairy grazing and cropping income.

### REVENUE FALLS SLIGHTLY

Net cash income is expected to decrease slightly to \$401 100 in 2010/11. Cattle turnover is expected to be lower and the lambing percentage is also expected to decrease.

### SHEEP REVENUE DROPS AFTER AN ESPECIALLY GOOD YEAR

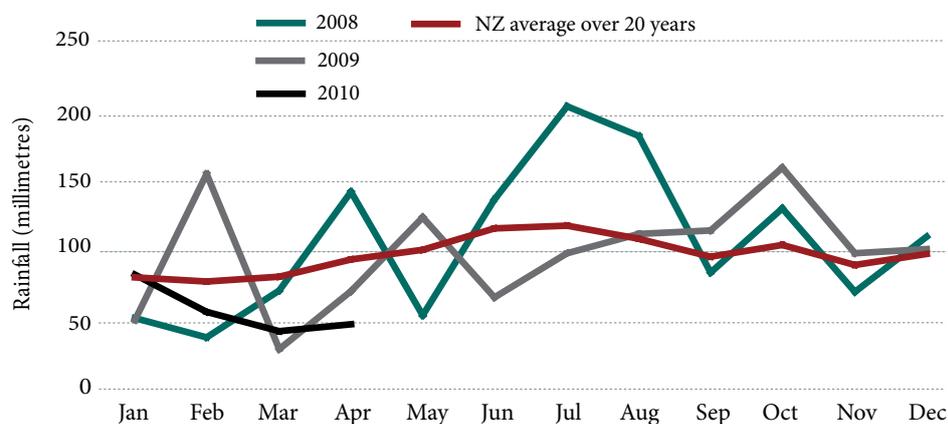
Net sheep revenue (sales less purchases) is budgeted to decrease slightly, due to an expected decrease in the lambing percentage, meaning fewer home-bred lambs for sale on the model.

The increased returns in 2009/10 were due to exceptional weather leading to a higher lambing percentage. In 2009/10, the late summer and autumn weather dried pastures and reduced feed quality. This left many breeding ewes in poorer condition, which, combined with expectations of a return to normal lambing weather, has reduced lambing expectations 9 percentage points to 125 percent for the 2010/11 season.

### WOOL VOLUME EXPECTED TO INCREASE WITH MORE STOCK

Wool revenue is expected to fall 3 percent in 2010/11 to \$26 700, solely due to an expected decrease in wool price, dropping 12 cents to \$2.20 per kilogram. A slight increase in total wool shorn is expected as slightly more numbers of lambs are traded and a proportion of those are shorn.

»» FIGURE 1: WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL AVERAGE MONTHLY RAINFALL



Source NIWA.

### CATTLE TURNOVER LOWER

Cattle revenue (sales less purchases) is expected to decrease 8 percent in 2010/11 to \$92 700. Although the trading margin over all cattle bought and sold is expected to increase, the turnover of cattle is expected to be lower than in 2009/10. A small decrease in cattle stock units by 30 June 2011 is expected due to the anticipated rise of steer prices in 2010/11, and increased dairy grazing replacing the cattle trading activity to some extent.

### OTHER REVENUE INCREASES

Other farm income is expected to rise 6 percent as cropping income is set to return to average yields, and experience a small increase in pricing.

### EXPENDITURE BUDGETED TO INCREASE 4 PERCENT

Total farm working expenses is budgeted to increase 4 percent to \$223 400 in 2010/11 due to fertiliser applications returning to maintenance levels, and inflationary pressures on other expenses. Most businesses have cut much of the cost out of their operations in order to preserve the bottom line profit.

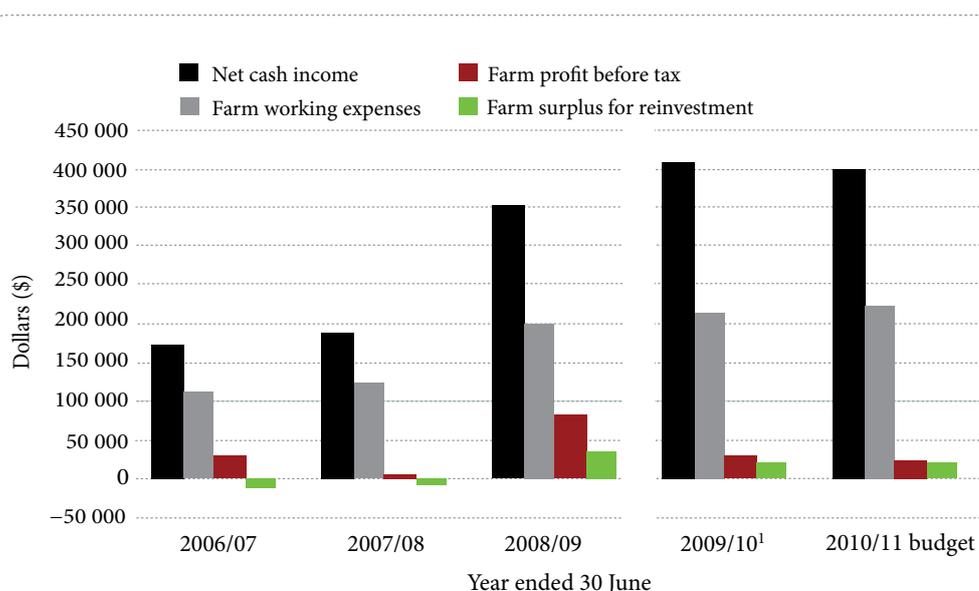
### LIME EXPENDITURE INCREASED TO MAXIMISE FERTILISER BENEFITS

Fertiliser expenditure is budgeted to increase 9 percent to \$150 per hectare in 2010/11, compared with \$138 per hectare in 2009/10. The fertiliser industry is hoping for more purchases in spring 2010 and a return to maintenance fertiliser levels as farmers gain more confidence, in the 2009/10 financial results. Prices are also anticipated to increase during the year.

### OTHER EXPENSES SET TO RISE AT LEAST 3 PERCENT

With the exception of shearing, all other working expenses are expected to increase at least 3 percent in 2010/11, due to inflationary pressures. Cropping expenses are budgeted to rise 6 percent to \$18 800 in 2010/11, and feed expenses are expected to rise (reaching \$19 000), up 6 percent on the previous year. Small inflationary adjustments are expected to be made to such items as fuel, freight, electricity prices and vehicle expenditure.

»» FIGURE 2: WESTERN LOWER NORTH ISLAND INTENSIVE SHEEP AND BEEF MODEL PROFITABILITY TRENDS



**Note**

<sup>1</sup> The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

## FARM PROFIT DETERIORATES

Farm profit before tax is expected to decrease to a \$23 400 in 2010/11. This is due to a 7 percent decrease in the cash operating surplus largely driven by decreases in sheep and beef revenue over the 2010/11 season. Farm surplus for reinvestment, budgeted at \$19 200, is 7 percent lower than 2009/10, and no principal repayments are planned for the model.

The opening value of land and buildings in the farm model is expected to decrease 11 percent to \$12 200 per hectare. There is a realisation that the price of sheep, beef and arable land has become quite dissociated with the income earning capacity of the land and, along with the credit crisis has prompted a perceived softening of farm values in the region. There have been few farm sales in the region to validate new levels.

## INFORMATION ABOUT THE MODEL

The western lower North Island intensive model represents 385 intensive finishing farms located south of New Plymouth, and on the west coast of the North Island. Most farms in this region are suited to intensive finishing, cropping and dairy support. The farm management practices and stock policies are very flexible between seasons and can be as variable as the weather in this region.

The model farm has a sheep breeding livestock policy and also buys in lambs, has a cattle trading policy (half bull beef), and sells baleage and silage.

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