

NORTHLAND SHEEP AND BEEF

KEY POINTS

- Autumn 2011 started with stock in great condition and high pasture covers. The winter was wet and cold and followed by a poor spring. Regular summer and autumn rainfall in 2012 resulted in good pasture growth. Stock were in good condition going into the 2012 winter and most properties had increased stock numbers.
- Stock prices lifted to record levels during 2011/12 for both lamb and beef, and store prices remained strong throughout the year. Prices for beef are expected to remain favourable in 2012/13, but lamb prices are expected to be down 15 percent.
- Net cash income increased 12 percent to \$243 300 in 2011/12, due to a 9 percent rise in the average lamb price and a 15 percent rise in the average price for all cattle sold. Despite the expected drop in prices per head for 2012/13,

Key results from the Ministry for Primary Industries 2012 sheep and beef monitoring programme

net cash income is expected to increase to \$255 300 due to the increase in the number of animals sold.

- Farm working expenses were up 12 percent to \$136 900 in 2011/12, mainly due to increased spending on fertiliser, lime and repairs and maintenance. For the 2012/13 year, farm working expenses are expected to increase slightly to \$137 500.
- Farm profit before tax for 2011/12 at \$103 100 is almost twice that of 2010/11 at \$57 100. For 2012/13 it is expected to decline 12 percent to \$91 000.
- Farmer morale has improved, with two years of good returns. However, while farmers anticipate reasonable prices for 2012/13 they are not confident about long-term prospects for their industry.

Table 1: Key parameters, financial results and budget for the Northland sheep and beef farm model

Year ended 30 June	2008/09	2009/10 ¹	2010/11	2011/12 actual	2012/13 budget
Effective area (ha)	314	314	315	314	314
Breeding ewes (head)	572	545	559	544	540
Replacement ewe hoggets (head)	173	143	147	153	152
Other sheep (head)	58	29	10	27	75
Breeding cows (head)	114	121	85	95	97
Rising one-year cattle (head)	244	233	248	277	266
Other cattle (head)	158	143	122	85	100
Opening sheep stock units (ssu)	735	734	726	725	754
Opening cattle stock units	2 485	2 406	2 157	2 184	2 227
Opening total stock units (su)	3 220	3 140	2 883	2 909	2 981
Stocking rate (stock unit/ha)	10.3	10.0	9.2	9.3	9.5
Ewe lambing (%)	117	125	124	130	135
Average lamb price (\$/head)	78.26	64.79	94.82	103.83	87.85
Average store lamb price (\$/head)	67.00	59.00	61.39	98.00	85.00
Average prime lamb price (\$/head)	88.00	68.00	96.95	106.00	95.00
Average wool price (\$/kg)	2.08	2.10	3.36	3.35	2.92
Total wool produced (kg)	4008	3473	3310	3475	3648
Wool production (kg/ssu)	5.5	4.7	4.6	4.8	4.8
Average rising two-year steer (\$/head)	780	825	751	1 440	1 300
Average cull cow (\$/head)	452	550	850	920	700
Net cash income (\$)	236 854	214 568	218 181	243 344	255 349
Farm working expenses (\$)	120 870	120 714	121 771	136 916	137 547
Farm profit before tax (\$)	40 355	19 270	57 067	103 114	90 995
Farm surplus for reinvestment (\$) ²	29 111	- 12 563	24 998	12 704	26 319

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 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 farm profit after tax plus depreciation plus stock adjustments less drawings.

Table 2: Northland sheep and beef model budget

	2011/12			2012/13 budget		
	Whole farm (\$)	Per hectare (\$)	Per stock unit ¹ (\$)	Whole farm (\$)	Per hectare (\$)	Per stock unit ¹ (\$)
Revenue						
Sheep	61 544	196	84.84	60 402	192	80.12
Wool	11 642	37	16.05	10 652	34	14.13
Cattle	256 230	816	117.33	265 180	845	119.06
Grazing income (including hay and silage sales)	0	0	0.00	0	0	0.00
Other farm income	3 767	12	1.29	4 025	13	1.35
Less:						
Sheep purchases	2 418	8	3.33	2 460	8	3.26
Cattle purchases	87 420	278	40.03	82 450	263	37.02
Net cash income	243 345	775	83.65	255 349	813	85.65
Farm working expenses	136 916	436	47.06	137 547	438	46.14
Cash operating surplus	106 429	339	36.58	117 802	375	39.52
Interest	19 227	61	6.61	17 687	56	5.93
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	24 766	79	8.51	655	2	0.22
Minus depreciation	8 854	28	3.04	9 776	31	3.28
Farm profit before tax	103 114	328	35.44	90 995	290	30.52
Income equalisation	0	0	0.00	10 000	32	3.35
Taxation	20 498	65	7.05	19 796	63	6.64
Farm profit after tax	82 616	263	28.40	71 198	227	23.88
Allocation of funds						
Add back depreciation	8 854	28	3.04	9 776	31	3.28
Reverse stock value adjustment	- 24 766	- 79	-8.51	- 655	- 2	-0.22
Drawings	54 000	172	18.56	54 000	172	18.11
Farm surplus for reinvestment²	12 704	40	4.37	26 319	84	8.83
Reinvestment						
Net capital purchases	15 000	48	5.16	8 500	27	2.85
Development	0	0	0.00	0	0	0.00
Principal repayments	0	0	0.00	0	0	0.00
Farm cash surplus/deficit	- 2 296	- 7	-0.79	17 819	57	5.98
Other cash sources						
Off-farm income	2 000	6	0.69	2 000	6	0.67
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	0	0	0.00	0	0	0.00
Net cash position	- 296	- 1	-0.10	19 819	63	6.65
Assets and liabilities						
Farm, forest and building (opening)	1 560 000	4 968	536.22	1 560 000	4 968	523.29
Plant and machinery (opening)	59 027	188	20.29	65 173	208	21.86
Stock valuation (opening)	469 315	1 495	161.32	483 029	1 538	162.03
Other produce on hand (opening)	0	0	0.00	0	0	0.00
Total farm assets (opening)	2 088 342	6 651	717.83	2 108 202	6 714	707.18
Total assets (opening)	2 162 042	6 885	743.16	2 181 902	6 949	731.90
Total liabilities (opening)	316 778	1 009	108.89	294 778	939	98.88
Total equity (farm assets - liabilities)	1 771 564	5 642	608.94	1 813 424	5 775	608.30

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 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 farm profit after tax plus depreciation plus stock adjustments less drawings.

Table 3: Northland sheep and beef model expenditure

	2011/12			2012/13 budget		
	Whole farm (\$)	Per hectare (\$)	Per stock unit (\$)	Whole farm (\$)	Per hectare (\$)	Per stock unit (\$)
Farm working expenses						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	7 500	24	2.58	7 500	24	2.52
ACC	253	1	0.09	223	1	0.07
Total labour expenses	7 753	25	2.66	7 723	25	2.59
Animal health	9 746	31	3.35	9 987	32	3.35
Breeding	1 018	3	0.35	1 043	3	0.35
Electricity	3 200	10	1.10	3 428	11	1.15
Feed (hay and silage)	1 891	6	0.65	1 938	6	0.65
Feed (feed crops)	0	0	0.00	0	0	0.00
Feed (grazing)	0	0	0.00	0	0	0.00
Feed (other)	3 055	10	1.05	3 130	10	1.05
Fertiliser	34 933	111	12.01	37 391	119	12.54
Lime	4 725	15	1.62	4 950	16	1.66
Cash crop expenses ¹	0	0	0.00	0	0	0.00
Freight (not elsewhere deducted)	4 218	13	1.45	4 472	14	1.50
Regrassing costs	0	0	0.00	0	0	0.00
Shearing expenses ²	4 099	13	5.65	4 297	14	5.70
Weed and pest control	3 346	11	1.15	3 428	11	1.15
Fuel	6 546	21	2.25	6 708	21	2.25
Vehicle costs (excluding fuel)	7 331	23	2.52	7 512	24	2.52
Repairs and maintenance	20 219	64	6.95	15 204	48	5.10
Total other working expenses	104 327	332	35.86	103 489	330	34.71
Communication costs (phone and mail)	1 804	6	0.62	1 938	6	0.65
Accountancy	2 764	9	0.95	2 981	9	1.00
Legal and consultancy	1 076	3	0.37	1 103	4	0.37
Other administration	1 309	4	0.45	1 342	4	0.45
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	7 128	23	2.45	8 049	26	2.70
Insurance	3 927	13	1.35	4 323	14	1.45
ACC employer	4 327	14	1.49	4 036	13	1.35
Other expenditure	2 502	8	0.86	2 564	8	0.86
Total overhead expenses	24 837	79	8.54	26 335	84	8.83
Total farm working expenses	136 916	436	47.06	137 547	438	46.14
Calculated ratios						
Economic farm surplus (EFS ³)	70 457	224	24.22	56 599	180	18.99
Farm working expenses/NCI ⁴	56%			54%		
EFS/total farm assets	3.4%			2.7%		
EFS less interest and lease/equity	2.9%			2.1%		
Interest+rent+lease/NCI	7.9%			6.9%		
EFS/NCI	29.0%			22.2%		
Wages of management	51 883	165	17.83	52 082	166	17.47

Notes

1 Includes forestry expenses.

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

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 NORTHLAND SHEEP AND BEEF FARM MODEL IN 2011/12

The cash operating surplus for the Northland sheep and beef farm model in 2011/12 was \$106 400, up 10 percent on the previous year. Stock prices lifted to record levels during the year, with the lamb schedule rising to over \$8.00 per kilogram in November 2011 and beef to near \$5.00 per kilogram in January 2012. Store prices for lamb and cattle also remained strong throughout the year.

Difficult spring hampers growth rates

Stock were in good condition in the 2011 autumn. Winter was also kind to stock despite it being wetter than usual, and animal condition remained good right up until September. Farmers started the winter with pasture covers up to 50 percent higher than average and were confident that winter management would be comfortable. However, the wet soil conditions caused farmers to speed up rotations and, consequently, pasture covers were quickly eroded, but animal condition was maintained.

Early August brought relief with drier weather, but a severe cold spell in mid-August brought a rare and brief snow dusting to elevated parts of Northland. A series of frosts followed, with some areas recording seven to eight consecutive days of frost, again rare for Northland. This cold snap resulted in a further rapid drop in pasture cover.

The relatively dry conditions during lambing and calving resulted in higher than average lamb and calf survival. However, the low pasture covers meant some farmers experienced higher than usual breeding cow losses as heavy cows scavenged in swampy areas for feed and succumbed to metabolic problems like grass staggers.

September and October were average months but pasture covers remained low. November was dry. Feed intakes stalled through September, October and November and for part of December. October and November are crucial months requiring good pasture growth in order to feed lactating ewes. The difficult spring resulted in lower lamb weaning weights.

With the excellent summer pasture growth rates, calf weaning weights were good despite the poor spring. Farmers were reporting a 1 kilogram of liveweight gain per day during lactation, which is 25 percent higher than usual. There were also concerns that cow scanning results would be low

with the poor spring feed conditions. However, good cow condition buffered the breeding stock through the mating period resulting in higher than average scanning results.

Widespread rain in early December resulted in exceptional pasture growth and, by late December, feed supply exceeded demand. The summer months received regular rain, and pasture continued to grow at levels 40 to 60 percent higher than usual. This caused many farmers to hold on to stock to control the pasture, despite the exceptional prices on offer for both store lambs and cattle throughout the summer.

Kikuyu growth began later in the summer than usual, but growth was exceptional. In 2010/11, farmers reported an increase in clover and, in 2011/12, there was an even greater increase of clover content in the sward. With higher than usual pasture covers and an increasing kikuyu pasture sward across Northland, facial eczema spore levels remained low throughout the season and no damage was reported.

RECORD PRICES RESULT IN 12 PERCENT INCREASE IN CATTLE REVENUE

Cattle revenue (sales less purchases) increased 12 percent or \$18 500. The average sale price was \$990 per head, compared with \$860 per head received in 2010/11, an increase of \$130 per head. Fourteen fewer cattle were sold in 2011/12, a decline of 5 percent. The farm model took advantage of the high cattle prices to maintain income while increasing cattle numbers almost to the pre-drought levels. However, total stock numbers are still 5 percent below the pre-drought level that prevailed during the 2009/10 season. A slightly lower stocking rate provides flexibility in the face of the extreme variations in climatic conditions over recent years.

SHEEP REVENUE INCREASES 9 PERCENT DUE TO RECORD LAMB PRICES

The farm model revenue from sheep (sales less purchases) increased 9 percent, from \$54 200 in 2010/11 to \$59 100 in 2011/12. This was due to a \$9 per head increase in the average lamb

price from \$95 per head in 2010/11 to \$104 per head in 2011/12. The good pasture growth over the summer meant store lambs were sold at an average price 60 percent higher than 2010/11. These store lambs were sold for \$98 per head in 2011/12, compared with \$61 per head the season before. Prime lambs were only \$8 per head more than the store price, so the farm model sold 29 percent of its lambs store in 2011/12 (128 lambs) compared with only 6 percent (30 lambs) for the 2010/11 season.

The lambing percentage for 2011/12 increased by six percentage points to 130 percent due to the settled weather conditions over lambing. Northland farmers who purchased lambs for winter finishing are facing slim margins, but monitored farmers have increased the number to be wintered for 2012 by 35 percent. However, trading of lambs is only a small activity on this farm model.

It appears sheep numbers will continue to decline in Northland because ageing farmers are losing interest in sheep and the work involved with farming them. However, after three years of good winter lamb sales, there has been increased interest in retaining more winter lambs and selling to the works from July to September.

BETTER WOOL REVENUE FOR A SECOND YEAR

The price received for wool in 2011/12 was the same as the previous year and, at \$3.35 per kilogram, is still 60 percent higher than the 2009/10 season. However, farmers find the wool market incomprehensible and are bemused by both the increase in price for two seasons and the now expected decrease for the 2012/13 year. Farmers with an interest in the wool industry comment

that, with no independent agency reporting on market information, the previous involvement by former Meat and Wool New Zealand is missed. Wool weights for the farm model improved from 4.6 kilograms per sheep stock unit in 2010/11 to 4.8 kilograms in 2011/12. The income from wool is less than 5 percent of total farm revenue so any variation in price or quantity is of little concern.

EXPENDITURE UP 12 PERCENT

Farm working expenses for the farm model were up 12 percent to \$136 900 for the 2011/12 season, an increase of \$15 100, compared with \$121 800 for the 2010/11 season. Almost 80 percent of the increase in expenditure is due to extra spending on fertiliser and lime and on repairs and maintenance.

Fertiliser and lime account for 65 percent of the increase

In total, fertiliser and lime spending increased by one-third in 2011/12, compared with 2010/11. When prices are good, farmers invest in fertiliser either to maintain or improve the productive capacity of their farms. Fertiliser spending on the farm model increased 17 percent to \$34 900, and an extra 8 tonnes of super phosphate was applied. For the past three seasons, an average of 21 kilograms of phosphorous has been applied to the farm model, which is a maintenance level. In addition, 75 tonnes of lime was applied in the 2011/12 season. Lime was last applied in the 2009/10 season at 70 tonnes. This means, for the past three seasons, an average of 40 tonnes of lime has been applied on an annual basis, compared with a maintenance rate of 120 tonnes per year. Within the next three years, the farm model will need to apply lime to the whole farm.

Table 4: Northland sheep and beef model cash farm income

Year ended 30 June	2008/09 (\$)	2009/10 (\$)	2010/11 (\$)	2011/12 (\$)	2012/13 budget (\$)
Sheep sales less purchases	49 868	39 360	54 252	59 126	57 942
Cattle sales less purchases	170 350	159 616	150 308	168 810	182 730
Wool	8 337	7 292	11 120	11 642	10 652
Grazing income (including hay and silage sales)	0	0	0	0	0
Other income	8 300	8 300	2 500	3 767	4 025
Net cash income	236 854	214 568	218 181	243 344	255 349

Note

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.

To finance that cost, it will probably apply lime to the whole farm and no phosphate.

Many Northland farms have adequate soil fertility levels, but farmers need the good product prices similar to the past two seasons to be able to afford sufficient fertiliser to maintain properties at present productive levels. Those properties with low soil fertility levels, which require above maintenance levels of fertiliser application, will find it difficult to improve the productivity of their farms.

Repairs and maintenance expenditure continues

Expenditure on repairs and maintenance on the farm model increased 11 percent to \$20 200 in 2011/12, compared with \$18 300 in the 2010/11 season. This represents spending of \$64 per hectare and is around 25 percent higher than the average for the previous five years. The 2011/12 average for the monitored farms was \$70, with a range of \$9 to \$198 per hectare.

Interest expenditure fell by \$3200 to \$19 200 as the interest rate on most of the borrowed funds reduced from around 7 percent to 6 percent. For the farm model, all debt servicing is on an

interest-only basis, and no voluntary principal repayments were made. For the monitored farms, the average principal repayment for 2011/12 was only \$7600 per farm. This confirms that, even with good returns, it is difficult for Northland farmers to repay debt and keep spending at a level that will maintain farms in a productive state.

NET RESULT IMPROVES BUT CASH SURPLUS DECLINES

The farm profit before tax increased from \$57 100 in 2010/11 to \$103 100 for 2011/12, with two-thirds of the increase due to a stock value adjustment of \$24 800. Total tax paid is \$20 500 and this includes some terminal tax from 2010/11. After net capital purchases of \$15 000, there is a farm cash deficit of \$2300 for 2011/12, compared with a surplus of \$13 000 for 2010/11.

The farm model total spending on capital purchases for the past two years has been \$27 000, mostly with the purchase of plant and equipment. The major outstanding item is the farm tractor, which will need replacing within the next three years.

BUDGET FINANCIAL PERFORMANCE OF THE NORTHLAND SHEEP AND BEEF MODEL FARM IN 2012/13

The cash operating surplus expected for the Northland sheep and beef farm model for 2012/13 is \$117 800, an 11 percent lift on the 2011/12 season. Revenue for both sheep and wool is expected to decline slightly, while cattle revenue is expected to increase by 8 percent. Farm working expenses are expected to remain the same. Farmers commented that the high stock prices experienced during 2011/12 were a “once-in-a-lifetime” experience and none expect returns to improve above those levels in the future.

REVENUE EXPECTED TO RISE

Northland farmers are cautiously optimistic that product prices, especially for beef, will hold for 2012/13. Beef prices are expected to be between \$4.00 and \$4.50 per kilogram and lamb prices to peak at \$6.50 per kilogram in winter 2012, in line with industry contracts, which were oversubscribed. Wool prices are expected to stay down and could even drop further. The model wool price is budgeted at \$2.92 per kilogram for

2012/13, down 13 percent.

The lambing percentage for the farm model is expected to increase another five percentage points to a record 135 percent for 2012/13, with ewes in great order at tupping in autumn 2012. Likewise, farmers are expecting calving to be good, with improved scanning results. Total sheep numbers show a slight decline of only 1 percent. Cattle numbers are expected to increase slightly to maintain total stock units.

CATTLE REVENUE EXPECTED TO RISE 8 PERCENT WHILE SHEEP REVENUE FALLS 2 PERCENT

Net cash income for the model is expected to rise by 5 percent in 2012/13 to \$255 300, a lift of \$12 000. The decline in sheep revenue (sales less purchases) of just \$1200 will be more than compensated by an increase in cattle revenue (sales less purchases) of \$13 900.

It is expected there will be 6 percent more lambs to sell for the 2012/13 season due to the

improvement in the lambing percentage but the average price is likely to decline by 15 percent to \$88 per head. However, the increase in older lambs carried over winter for sale in early spring 2012, means the net result is expected to be no change in income from lamb sales.

While wool income is around only 5 percent of total revenue, the anticipated drop in wool income for 2012/13 is 9 percent. For the 2012/13 season, shearing costs are expected to be \$4300, which represents 40 percent of the income from wool.

For the 2012/13 season, it is expected there will be 8 percent more cattle to sell, offsetting the impact of lower prices. Although the extra 21 head of cattle are expected to be sold at \$40 per head less than the previous season, cattle income is expected to increase by \$9000 in 2012/13. The purchase price of trading cattle is also expected to be 7 percent per head lower than the previous year, contributing to the increase in cattle revenue of 8 percent.

In the past, the exchange rate (against the US dollar) used to move by 2 to 5 cents within a season but that variation can now be 15 cents. The volatility in the exchange rate makes it difficult to know what returns to budget for. It is possible that unforeseen movement in the exchange rate will completely change the revenue assumptions made for the farm model for the 2012/13 season.

EXPENDITURE UNCHANGED

The farm model working expenses are budgeted to increase by only \$600 in 2012/13. All farm inputs in the model have been held the same as for 2011/12, with generally small increases

in expenditure due to inflation. The only major dollar changes are with fertiliser, repairs and maintenance and rates.

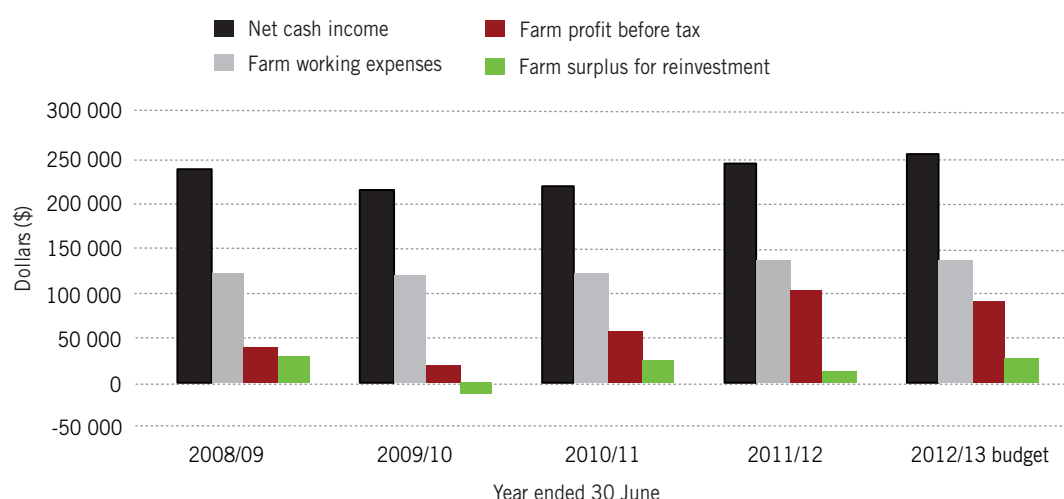
Northland farmers want to maintain fertiliser and lime inputs but have budgeted for a slightly larger increase in the cost of fertiliser than that in 2011/12. For the farm model, total spending in 2012/13 on fertiliser and lime is expected to increase 7 percent or \$2700. Spending on repairs and maintenance in the farm model is expected to decline by \$5000, a drop of 25 percent. Northland farmers are intent on curtailing spending until it is evident that income will be sufficient to cover anticipated costs.

The Far North and Kaipara district councils have proposed a differential rating system, targeting higher rates for dairy farmers and forestry owners to compensate for trucks impacting on roads. This is not expected to greatly impact council rates for sheep and beef farmers as they are relatively low users of the roads in comparison with the forestry and dairy industries. Even so, the farm model has an expected increase in rates of 13 percent or \$900, bringing expenditure to \$8050 for the year.

PROFIT DOWN BUT NET CASH POSITION UP

Farm profit before tax for the Northland sheep and beef farm model is expected to decline 12 percent from \$103 100 to \$91 000 in 2012/13. During the drought of 2010, the farm model sold extra capital stock and placed \$20 000 in an income equalisation scheme. It is expected that \$10 000 will be withdrawn from the scheme in the 2012/13 financial year. Capital purchases of \$8500 are budgeted in 2012/13, compared with \$15 000 in the previous season. Farmers

Figure 1: Northland sheep and beef model profitability trends



anticipate reviewing their spending on capital items, depending on their cash position, later in the season.

The \$10 000 withdrawal from the income equalisation scheme bolsters the cash farm surplus, which is expected to be \$17 800 in 2012/13,

compared with the small deficit of \$2300 for the 2011/12 season.

The present capital value for the farm model, at nearly \$5000 per hectare, is considered reasonable.

This is lower than two to three years ago, despite the view that the farm model was undervalued at that stage.

INFORMATION ABOUT THE MODEL

The Northland sheep and beef farm model represents 950 hill country and intensive finishing farms from Auckland north. Cattle make up about 75 percent of total stock units.

The model runs a breeding flock with 25 to 30 percent ewe hogget replacements. A cross-bred breeding herd was run but is now mated to beef bulls, and replacement heifers are no longer bought in. The surplus heifer calves are sold as weaners and replaced with dairy beef bulls. Surplus heifers are mainly sold as prime rising 24 to 36 month heifers to the local trade market.

The majority of steers are wintered over and sold on the spring grass market or carried through to

slaughter from 22 to 30 months of age. Around 200 bull calves are purchased during the spring as weaners and sold as 24 to 36 month bulls.

Farm monitoring models calculate sheep stock units based on lambing performance. One standard sheep stock unit is based on a ewe lambing greater than 111 percent and less than 120 percent. Based on the lambing percentage for this model breeding ewe numbers were multiplied by 1.1 stock units in both years. Any per stock unit calculations or indices should take this into account when comparing to other sources of financial information.

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