

# PASTORAL MONITORING 2010

# HAWKE'S BAY/WAIRARAPA 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. MAF no longer prepares an eastern lower North Island model so this report covers all sheep and beef farms in the Hawke's Bay and Wairarapa regions.

# **KEY POINTS**

- > 2009/10 was punctuated by good rainfalls in October and January providing much improved pasture growth conditions compared with the previous three years.
- Net cash income was down in 2009/10 with fewer cattle sold, due to reduced stock numbers, and reduced lamb prices. However, it is expected to increase in 2010/11 as a result of increased stock numbers, improved performance and firm prices.
- > Farm working expenditure grew by just 1 percent in 2009/10 to \$199 000 but is expected to increase a further 5 percent in 2010/11 as inputs such as fertiliser and regrassing are restored closer to pre-drought levels.
- > Discretionary cash fell by \$64 300 to \$58 700 in 2009/10, due to destocking boosting income in 2008/09 while rebuilding stock numbers in 2009/10 reduced cash income. It is expected to increase by \$29 800 to \$88 600 in 2010/11.

### >>> TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE HAWKE'S BAY/WAIRARAPA SHEEP AND BEEF FARM MODEL

YEAR ENDED 30 JUNE	2008/09	2009/101	2010/11 BUDGET
Effective area (ha)	570	570	570
Breeding ewes (head)	2 705	2 560	2 595
Replacement ewe hoggets (head)	660	640	700
Other sheep (head)	188	143	160
Breeding cows (head)	105	96	102
Rising 1-year cattle (head)	155	133	134
Other cattle (head)	116	109	110
Opening sheep stock units (ssu)	3 362	3 406	3 523
Opening cattle stock units	1 809	1 638	1 686
Opening total stock units (su)	5 170	5 043	5 209
Stocking rate (stock unit/ha)	9.1	8.8	9.1
Ewe lambing (%)	114	122	126
Average lamb price (\$/head)	78.00	71.42	71.40
Average store lamb price (\$/head)	68.00	58.00	58.00
Average prime lamb price (\$/head)	85.00	78.00	78.00
Average wool price (\$/kg)	2.15	2.25	2.30
Total wool produced (kg)	16 521	16 007	16 930
Wool production (kg/ssu)	4.91	4.70	4.81
Average rising 2-year steer (\$/head)	735	920	982
Average cull cow (\$/head)	520	660	769
Net cash income (\$)	382 415	333 857	375 444
Farm working expenses (\$)	196 593	199 095	208 808
Farm profit before tax (\$)	43 083	63 184	87 405
Farm surplus for reinvestment (\$) <sup>2</sup>	61 078	-9 252	19 051
Notes			



<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. 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 2: HAWKE'S BAY/WAIRARAPA 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> (\$)	
REVENUE							
Sheep	221 536	389	65.05	250 500	439	71.11	
Wool	36 015	63	10.58	38 938	68	11.05	
Cattle	126 428	222	77.20	141 018	247	83.64	
Grazing income (including hay and silage sales)	5 000	9	0.99	6 000	11	1.15	
Other farm income	9 700	17	1.92	10 000	18	1.92	
LESS:							
Sheep purchases	28 688	50	8.42	33 602	59	9.54	
Cattle purchases	36 134	63	22.07	37 410	66	22.19	
Net cash income	333 857	586	66.20	375 444	659	72.08	
Farm working expenses	199 095	349	39.48	208 808	366	40.09	
Cash operating surplus	134 762	236	26.72	166 636	292	31.99	
Interest	65 346	115	12.96	65 264	114	12.53	
Rent and/or leases	0	0	0.00	0	0	0.00	
Stock value adjustment	17 957	32	3.56	8 188	14	1.57	
Minus depreciation	24 189	42	4.80	22 154	39	4.25	
Farm profit before tax	63 184	111	12.53	87 405	153	16.78	
Taxation	13 668	24	2.71	15 321	27	2.94	
Farm profit after tax	49 516	87	9.82	72 085	126	13.84	
•							
ALLOCATION OF FUNDS							
Add back depreciation	24 189	42	4.80	22 154	39	4.25	
Reverse stock value adjustment	-17 957	-32	-3.56	-8 188	-14	-1.57	
Income equalisation	0	0	0.00	0	0	0.00	
Off-farm income	3 000	5	0.59	2 500	4	0.48	
Discretionary cash	58 748	103	11.65	88 551	155	17.00	
APPLIED TO:							
Net capital purchases	5 000	9	0.99	5 000	9	0.96	
Development	0	0	0.00	1 200	2	0.23	
Principal repayments	0	0	0.00	0	0	0.00	
Drawings	65 000	114	12.89	67 000	118	12.86	
New borrowings	0	0	0.00	0	0	0.00	
Introduced funds	0	0	0.00	0	0	0.00	
Cash surplus/deficit	-11 252	-20	-2.23	15 351	27	2.95	
Farm surplus for reinvestment <sup>2</sup>	-9 252	-16	-1.83	19 051	33	3.66	
Tarm surplus for remivestment	- <i>J 232</i>	-10	-1.03			3.00	
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	3 633 000	6 374	720.36	3 300 000	5 789	633.54	
Plant and machinery (opening)	116 260	204	23.05	103 821	182	19.93	
Stock valuation (opening)	587 174	1 030	116.43	605 131	1 062	116.17	
Other produce on hand (opening)	0	0	0.00	0	0	0.00	
Total farm assets (opening)	4 336 434	7 608	859.84	4 008 952	7 033	769.65	
Total assets (opening)	4 370 334	7 667	866.57	4 042 952	7 093	776.18	
Total liabilities (opening)	866 000	1 519	171.71	878 000	1 540	168.56	
Total equity (farm assets - liabilities)	3 470 434	6 088	688.13	3 130 952	5 493	601.09	
Notes	J 1/0 131	0 000	000.13	3 130 732	3 173	001.07	

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.

<sup>2</sup> 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.

		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> (\$)		
FARM WORKING EXPENSES								
Permanent wages	22 800	40	4.52	24 300	43	4.67		
Casual wages	5 900	10	1.17	5 000	9	0.96		
ACC	739	1	0.15	1 217	2	0.23		
Total labour expenses	29 439	52	5.84	30 517	54	5.86		
Animal health	14 878	26	2.95	14 400	25	2.76		
Breeding	1 967	3	0.39	1 750	3	0.34		
Electricity	3 700	6	0.73	4 500	8	0.86		
Feed (hay and silage)	4 287	8	0.85	2 448	4	0.47		
Feed (feed crops)	3 329	6	0.66	3 750	7	0.72		
Feed (grazing)	0	0	0.00	0	0	0.00		
Feed (other)	1 513	3	0.30	1 354	2	0.26		
Fertiliser	32 227	57	6.39	36 201	64	6.95		
Lime	6 203	11	1.23	8 000	14	1.54		
Cash crop expenses <sup>2</sup>	4 060	7	0.81	1 460	3	0.28		
Freight (not elsewhere deducted)	5 960	10	1.18	6 250	11	1.20		
Regrassing costs	4 000	7	0.79	5 940	10	1.14		
Shearing expenses	17 948	31	5.27	19 000	33	5.39		
Weed and pest control	2 990	5	0.59	3 200	6	0.61		
Fuel	8 200	14	1.63	8 500	15	1.63		
Vehicle costs (excluding fuel)	10 050	18	1.99	10 020	18	1.92		
Repairs and maintenance	16 040	28	3.18	16 145	28	3.10		
Total other working expenses	137 351	241	27.23	142 919	251	27.44		
Communication costs (phone and mail)	3 000	5	0.59	3 140	6	0.60		
Accountancy	3 650	6	0.72	3 680	6	0.71		
Legal and consultancy	1 950	3	0.39	1 700	3	0.33		
Other administration	1 200	2	0.24	1 760	3	0.34		
Water charges (irrigation)	0	0	0.00	0	0	0.00		
Rates	11 770	21	2.33	12 120	21	2.33		
Insurance	6 820	12	1.35	6 970	12	1.34		
ACC employer	2 115	4	0.42	4 252	7	0.82		
Other expenditure	1 800	3	0.36	1 750	3	0.34		
Total overhead expenses	32 305	57	6.41	35 372	62	6.79		
Total farm working expenses	199 095	349	39.48	208 808	366	40.09		
CALCULATED RATIOS								
Economic farm surplus (EFS3)	54 165	95	10.74	81 580	143	15.66		
Farm working expenses/NCI <sup>4</sup>	60%			56%				
EFS/total farm assets	1.2%			2.0%				
EFS less interest and lease/equity	-0.3%			0.5%				
Interest+rent+lease/NCI	19.6%			17.4%				
EFS/NCI	16.2%			21.7%				
Wages of management	74 364	130	14.75	71 090	125	13.65		
Notes								

# Notes

<sup>1</sup> 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 HAWKE'S BAY/WAIRARAPA SHEEP AND BEEF FARM MODEL IN 2009/10

The cash operating surplus for the Hawke's Bay/Wairarapa farm model in 2009/10 was \$134 800, down \$51 000 or 27 percent compared with 2008/09, although the result in the previous year was boosted by drought-related destocking at good prices (reducing stock on hand by \$47 000). Stock numbers on the model fell 7 percent during 2008/09 on a standard stock unit basis (although the higher lambing percentage in 2009/10 and the use of performance based stock units causes the model to report a decrease of only 2.5 percent). In contrast, the model reflects farmers rebuilding numbers in 2009/10, with stock units increasing 3.3 percent.

Farmers are adapting their management to cope with the risk of drought and many are varying the number of trading lambs according to the amount of feed available rather than varying breeding ewe numbers.

# **INCOME DOWN BY 13 PERCENT**

Net cash income for the Hawke's Bay/Wairarapa model in 2009/10 fell \$48 600 compared with 2008/09 to \$333 900. This was due primarily to a 23 percent reduction in the number of cattle sold and a 9 percent reduction in the average lamb price.

#### SHEEP INCOME FALLS 5 PERCENT AS LAMB PRICES EASE

The average lamb price fell from \$78.00 in 2008/09 to around \$71.50 in 2009/10, as the New Zealand dollar appreciated. The number of lambs sold increased 3 percent in 2009/10, due to a slight increase in trading lambs. The prime hogget price improved and compensated for the reduction in numbers sold.

Overall, sheep income fell only 5 percent in 2009/10 to \$221 500 but sheep revenue (sales less purchases) fell 13 percent to \$192 800. This was due to a 147 percent increase in sheep purchases compared with 2008/09 to \$28 700, with sheep stock units increasing 3 percent. The number of trading lambs purchased in the model doubled to 200 and 80 two-tooth ewes were purchased at the prevailing high prices as flock numbers were rebuilt during the year.

# IMPROVED LAMBING COMPENSATES FOR LOWER EWE NUMBERS

An 8 percentage point improvement in lambing to 122 percent compensated for the reduction in ewes on hand at the start of the year and for fewer hoggets being mated due to the dry autumn in 2009. The model had a 1 percent increase in lambs born in 2009 compared with 2008. Despite low pasture covers at the start of winter 2009, most animals were at good bodyweights and a settled weather pattern during the main lambing period resulted in excellent survival rates. A snow storm late in the lambing season severely affected some farmers in the higher hill country.

#### **GOOD SUMMER CONDITIONS KEEP SHEEP PRICES HIGH**

Spring started slowly and the cooler conditions affected early lamb growth rates. Excellent rainfalls in October and January resulted in near record pasture growth rates in some districts in November and boosted store lamb prices in February. Pasture covers and livestock condition remained higher than usual over summer and farmers had the option to take lambs on to heavier weights.

With a general shortage of lambs, the procurement premium remained consistently more than 10 percent higher than the five year trend, and the lamb schedule did not fall as had been expected.

The average price for cull ewes rose 13 percent to \$58.50, and was higher than expected. Most were sent to the works as their teeth were in poor condition after the years of seeking out feed in droughts. The shortage of good one- and two-year ewes saw prices of these sheep going over \$100 per head. Likewise the market for good two-tooth ewes was at near record levels in early February, as farmers attempted to rebuild stock numbers.

# IMPROVING WOOL PRICES MAINTAIN INCOME IN FACE OF LOWER PRODUCTION

Wool production fell slightly, down 3 percent to 16 000 kilograms. Although there were 6 percent fewer ewes on hand, more lambs were shorn in 2009/10 while being kept to heavier weights due to good feed levels. Total wool income increased 1 percent to \$36 000 as prices over the year were ahead of expectation and at \$2.25 per kilogram the model average was 5 percent higher than 2008/09.



#### **CATTLE REVENUE DOWN 21 PERCENT**

Opening cattle stock units were down 9 percent on the previous year. This, along with a 3 percent increase in cattle stock units by the end of the year, meant that fewer animals were available for sale and more needed to be purchased. Despite improved cattle prices in 2009/10, cattle income fell 8 percent to \$126 400. Rebuilding herds at the higher prices saw cattle purchases increase by 54 percent to \$36 100. As a result, cattle revenue (sales less purchases) fell \$23 400 to \$90 300.

The model shows in-calf cow numbers increasing from 96 to 102 by 30 June 2010 as a result of more confidence in carrying cows (and store cattle) through winter on lower quality pasture. The increase was possible because a lot of farmers kept replacement heifers even though they got out of cows during the droughts.

#### OTHER INCOME

The model has increased grazing income by \$2000 in 2009/10 due to increased reliance on dairy grazers and from the sale of some of the surplus pasture conserved in spring. While on average grazing only contributes 2 percent of net cash income, on some of the monitored farms it contributed up to 15 percent. It is expected that this revenue stream will increase in significance.

There was a slight increase in other farm income which is mostly derived from farmers taking advantage of a spike in timber prices to harvest some mature forest blocks and from the rental of surplus farm cottages.

# **EXPENDITURE INCREASE HELD TO 1 PERCENT**

Total farm working expenses on the Hawke's Bay/Wairarapa farm model increased by just \$2 500 in 2009/10 to \$199 100 due to lower stock numbers and a reduction in costs associated with drought. Feed costs and regrassing fell 43 percent to \$9100 and \$4000 respectively. The cost of making more hay and silage than usual (due to excellent pasture growth) was offset by buying in fewer pasture supplements, less grazing and growing less feed crop as a result of the better climatic conditions.

#### FERTILISER EXPENDITURE CONTINUES BELOW MAINTENANCE LEVELS

Fertiliser expenditure on the farm model increased 23 percent in 2009/10 to \$32 200.

Nitrogen use was lower than in recent years, with only 15 percent of the monitored properties applying significant amounts. On average only two-thirds of the maintenance phosphate requirement is being met. Increasing amounts of lime are being applied, in some cases as a substitute for maintenance fertiliser. There is increasing use of alternative fertilisers and soil conditioners.

# OTHER COSTS INCREASING

Items such as electricity (up 16 percent to \$3700), fuel and vehicle costs, insurance and rates continue to increase. Shearing expenditure reduced with fewer sheep on hand, changes in the frequency of shearing, moves to open shed as opposed to contract shearing and farmers undertaking more of their own crutching.

# **DISCRETIONARY CASH FALLS BY HALF**

Discretionary cash fell 52 percent to \$58 700 in 2009/10, from \$123 100 in 2008/09. However, when the impact

#### >>> TABLE 4: HAWKE'S BAY/WAIRARAPA SHEEP AND BEEF MODEL CASH FARM INCOME

YEAR ENDED 30 JUNE	2008/09 (\$)		2009/10 (\$)¹	2010/11 BUDGET (\$)	
Sheep sales less purchases	221 149		192 848	216 898	
Cattle sales less purchases	113 745		90 294	103 608	
Wool	35 521		36 015	38 938	
Grazing income (including hay and silage sales)	3 000		5 000	6 000	
Other income	9 000		9 700	10 000	
Net cash income	382 415		333 857	375 444	
Note					

#### Note

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.

of destocking in 2008/09 and a partial rebuild of numbers in 2009/10 is taken into account, farm profit before tax actually increased by \$20 100 to \$63 200. This included a write-up of \$18 000 relating to the increased value of stock on hand at 30 June 2010.

Taxation increased to \$13 700 compared with a refund of \$4100 in 2008/09. The taxation impact of income from the forced sale of capital stock due to drought in 2008/09 is reduced by using the adverse events income equalisation provisions to spread the tax liability. A terminal tax liability of \$3900 is transferred to 2010/11.

Debt servicing fell 8 percent in 2009/10 to \$65 300 due to lower interest rates and a reduced opening overdraft arising from the sale of capital stock in 2008/09. This overdraft is budgeted to increase again as farms restock after the drought. The average term debt interest rate in the model fell 0.7 percentage points to 7.5 percent. Higher customer margins affected the reduction in interest rates. Most farmers had a proportion of their debt floating at lower rates but some were locked into higher fixed rates in 2008. Debt on this farm model is equivalent to 20 percent of total farm assets with debt servicing around 20 percent of net cash income; however, many farmers have debt servicing costs of up to 30 percent of net cash income.

The cash deficit of \$11 300 meant that non-essential capital expenditure was again deferred.

The value of the average farm has become difficult to assess given the low number of sales and the varied attributes of properties in terms of topography, location and fertiliser history. The value of well-located farms with higher proportions of finishing land have fallen less than remote, harder country. A lack of maintenance is also showing up in valuations. The consensus from industry representatives was that values have dropped an average of 10 percent in the year to June 2010. The value of the farm model has dropped 14 percent from 1 July 2008 to \$633 per stock unit in July 2010.

# BUDGET FINANCIAL PERFORMANCE OF THE HAWKE'S BAY/ WAIRARAPA SHEEP AND BEEF FARM MODEL IN 2010/11

A dry autumn in most areas (until good widespread rain in May) hampered finishing stock growth rates and resulted in a shortage of good quality pasture going into winter 2010. Some destocking of cattle was reported in Wairarapa. Elsewhere there was a modest restocking with a tendency for cattle to increase at the expense of sheep. The model has a 3 percent increase in stock units at 30 June 2010, compared with a year earlier. Lack of fertiliser inputs in recent years combined with declining pasture quality is slowing the rebuilding of stock numbers.

The cash operating surplus on the model is expected to increase 24 percent to \$166 600 as a result of the lift in stock numbers and improved performance. An expected 3 percent increase in cattle stock units will lift total stock units by just under 1 percent during 2010/11. Prices are generally expected to remain firm.

# REVENUE EXPECTED TO LIFT BY 12 PERCENT

Net cash income is expected to increase by \$41 600 to \$375 400 in 2010/11. Sheep revenue (sales less purchases) is expected to increase 12 percent to nearly \$217 000 while cattle revenue is budgeted to increase 15 percent to nearly \$104 000.

# MORE LAMBS BUT PRICES UNCHANGED

The lambing percentage for 2010/11 is expected to be 126 percent, the highest since 2005/06. This is because of the improved body weight of the ewes across the region and favourable conditions at tupping. Some in the industry are suggesting that this might be optimistic given the excellent lamb survival in 2009 when 122 percent was achieved on the farm model; and in view of the poorer quality of the ewe flock after successive droughts.

Due to an increase in the number of hoggets mated and an increase in the lambing percentage, total docked lambs on the farm model are predicted to increase to 3372. This is an extra 190 lambs compared with 2009/10.

Overall, lamb prices are expected to be at similar levels to last year. An extra 310 lambs available for sale generates nearly 80 percent of the expected increase in sheep income. Lamb weights are expected to be down slightly when compared with 2009/10, however, lambs are expected to be weaned at heavier weights and more may achieve early premiums. Sheep numbers are expected to remain static in 2010/11.

#### WOOL INCOME MAKES MODEST IMPROVEMENT

Wool production per head is expected to improve slightly in 2010/11 due to the better condition of ewes. An expected five cent rise in the wool price to \$2.30 per kilogram results in an 8 percent increase in wool revenue. Older farmers still hold out a hope of good future returns for wool, but the younger farmers having never experienced good wool prices see it as little more than a nuisance.

#### **IMPROVING CONFIDENCE IN BEEF**

Farmers expect the shortage of cattle (especially cows) to underpin modest improvements in schedule prices. Cattle income is expected to increase 12 percent to \$141 000 with a slight increase in the number of cattle for sale.

#### EXPENDITURE EXPECTED TO INCREASE 5 PERCENT GIVEN IMPROVING OUTLOOK

After holding expenditure in line with drought-affected incomes for several years, farmers are expected to increase spending on fertiliser and regrassing while other costs such as electricity and fuel are budgeted to also continue to increase, partly as a result of the Emissions Trading Scheme. Costs associated with drought will fall along with hay and silage making expenditure as farmers took advantage of the pasture surplus in 2009/10 to replenish barns. Total feed costs are expected to fall 17 percent to \$7600 in 2010/11.

Total farm working expenses on the Hawke's Bay/Wairarapa farm model are expected to increase by \$9700 in 20010/11 to \$208 800.

#### FERTILISER AND LIME APPLICATIONS LIKELY TO RISE

Expenditure on fertiliser and lime is expected to increase 15 percent in 2010/11 to \$78 per hectare, with an increase in lime applications (sometimes with sulphur) particularly in the south of the region. A number of farmers have not put fertiliser on for several years and industry sources believe that if they have available cash this will be a high priority for expenditure. Nitrogen use is also expected to increase.

#### IMPROVING BOTTOM LINE

Discretionary cash on the Hawke's Bay/Wairarapa farm model is expected to increase 51 percent to \$88 600 in 2010/11. Farm profit before tax is budgeted to increase by \$24 200 to \$87 400 in 2010/11. Farmers may decide to increase expenditure on capital items as this has been held at low levels in recent years.

Debt servicing costs are not expected to fall much further in 2010/11. Although some loans are still coming off high fixed rates onto lower floating rates, some farmers are starting to hedge their risk by fixing part of their debt for longer terms at higher rates. Risk premiums are widening the cost of debt. The average term debt interest rate in the model is expected to fall 0.2 percentage points to 7.3 percent.

The net result is an improvement on 2009/10 but there is still some way to go before returns are sufficient to cover maintenance levels of expenditure and adequate investment in farm infrastructure. Although the return on total farm assets looks likely to improve from 1.2 percent in 2009/10 to 2.0 percent in 2010/11, this level of return is inadequate in the longer term.

#### INFORMATION ABOUT THE MODEL

This model is a combination of two previous sheep and beef models: The Hawke's Bay/Wairarapa hill country and the eastern lower North Island intensive finishing models. It represents around 2000 farms south of the Napier-Taupo Highway in the Hawke's Bay, Tararua and Wairarapa regions.

The new model comprises mainly sheep and cattle breeding and finishing farms, with most of the cropping done for grazing livestock. Of the twenty farms monitored none had a cash crop, but growing barley, squash and maize is not uncommon on some of the more fertile lower lying land in the region.

The farm model is 570 effective hectares and covers a range of environments: from the hill country in the western foothills of the main central mountain range, the dry central belt to the coastal hills in the east. As a result average rainfall ranges from 2000 millimetres per annum to 500 millimetres per annum. Soils are predominately yellow grey earths with some yellow brown loams. The terrain is easy to medium hill, but most properties have some "flats", typically used for more intensive farming practices, and some steeper country that is potentially erosion prone.

Stocking rates vary but averaged 8.8 based on opening stock numbers in July 2009. The total stock units of 5043

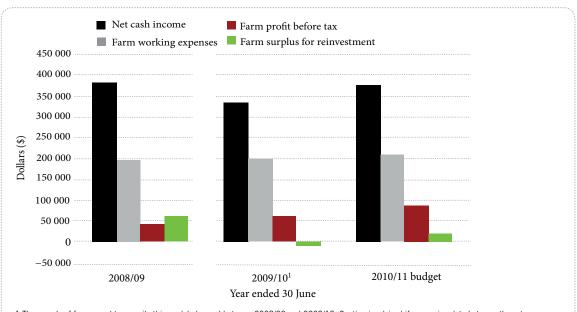
were made up of 68 percent sheep and 32 percent cattle.

The sheep system is a breeding ewe flock, breeding its own ewe replacements with, depending on the season, two-thirds of the lamb progeny being finished to slaughter weights and the rest sold store. Most of these store lambs stay within the region.

The model represents a range of cattle policies from breeding cow herds through to intensive bull finishing. The model has a 96 head mixed-age cow herd. Heifers are mated as rising two-year olds. The model finishes both steers and bull beef, mostly buying in weaner bulls with a small proportion of older bulls bought to finish.

For more information on this model contact: gillian.mangin@maf.govt.nz

#### >>> FIGURE 1: HAWKE'S BAY/WAIRARAPA SHEEP AND BEEF MODEL FARM PROFITABILITY TRENDS



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.

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