

# SOUTHLAND/SOUTH OTAGO HILL COUNTRY 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

- › Net cash income in 2009/10 increased 6 percent to \$518 800 as cattle returns improved. Sheep returns did not improve with a 10 percent lift in the lambing percent being offset by an \$8.77 decline in the average lamb price.
- › Farm working expenses increased 17 percent to \$305 700 in 2009/10 due to increased feed costs and a catch up on deferred maintenance fertiliser.
- › Cash operating surplus for 2009/10 fell to \$213 200 down 6 percent compared with 2008/09. Farm profit before tax fell to \$146 100 in 2009/10.
- › Farm profit before tax is expected to improve to \$157 200 in 2010/11 as lamb prices and stock numbers are budgeted to improve.
- › Farmer morale remains upbeat as the industry goes through a stable period of improved returns. Farmers remain concerned about the structure of their processing industries.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF FARM MODEL

YEAR ENDED 30 JUNE	2006/07	2007/08	2008/09	2009/10 <sup>1</sup>	2010/11 BUDGET
Effective area (ha)	723	723	723	723	723
Breeding ewes (head)	4 310	4 220	3 956	3 977	4 021
Replacement ewe hoggets (head)	1 194	1 096	887	997	1 150
Other sheep (head)	75	86	86	76	71
Breeding cows (head)	90	107	106	93	93
Rising 1-year cattle (head)	75	80	87	79	87
Other cattle (head)	3	3	4	26	16
Opening sheep stock units (ssu)	5 203	5 052	4 642	5 529	5 754
Opening cattle stock units	817	930	961	1 010	1 014
Opening total stock units (su)	6 020	5 982	5 603	6 538	6 768
Stocking rate (stock unit/ha)	8.3	8.3	7.7	9.0	9.4
Ewe lambing (%)	130	131	126	136	134
Average lamb price (\$/head)	50	49	82.85	74.08	76.01
Average store lamb price (\$/head)	42.72	38.61	69.64	65.00	65.00
Average prime lamb price (\$/head)	50.95	52.67	85.70	75.47	77.15
Average wool price (\$/kg)	2.46	2.36	2.32	2.42	2.45
Total wool produced (kg)	26 162	26 111	24 262	25 113	24 970
Wool production (kg/ssu)	5.03	5.17	5.23	4.54	4.34
Average rising 2-year steer (\$/head)	813	731	856	839	879
Average cull cow (\$/head)	539	526	598	695	646
Net cash income (\$)	383 390	392 091	488 752	518 819	562 025
Farm working expenses (\$)	220 958	246 975	260 971	305 658	324 757
Farm profit before tax (\$)	80 101	34 482	160 730	146 053	157 167
Farm surplus for reinvestment (\$) <sup>2</sup>	26 228	-12 042	105 583	63 309	94 820

### 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.



»» TABLE 2: SOUTHLAND/SOUTH OTAGO HILL COUNTRY 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	387 646	536	70.12	413 118	571	71.80
Wool	60 692	84	10.98	61 250	85	10.64
Cattle	72 350	100	71.64	69 073	96	68.10
Grazing income (including hay and silage sales)	10 290	14	1.57	14 400	20	2.13
Other farm income	13 480	19	2.06	16 243	22	2.40
<b>LESS:</b>						
Sheep purchases	17 218	24	3.11	8 055	11	1.40
Cattle purchases	8 422	12	8.34	4 004	6	3.95
<b>Net cash income</b>	<b>518 819</b>	<b>718</b>	<b>79.35</b>	<b>562 025</b>	<b>777</b>	<b>83.04</b>
<b>Farm working expenses</b>	<b>305 658</b>	<b>423</b>	<b>46.75</b>	<b>324 757</b>	<b>449</b>	<b>47.98</b>
<b>Cash operating surplus</b>	<b>213 160</b>	<b>295</b>	<b>32.60</b>	<b>237 269</b>	<b>328</b>	<b>35.06</b>
Interest	50 459	70	7.72	48 562	67	7.17
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	15 914	22	2.43	279	0	0.04
Minus depreciation	32 562	45	4.98	31 820	44	4.70
<b>Farm profit before tax</b>	<b>146 053</b>	<b>202</b>	<b>22.34</b>	<b>157 167</b>	<b>217</b>	<b>23.22</b>
Taxation	37 392	52	5.72	31 387	43	4.64
<b>Farm profit after tax</b>	<b>108 661</b>	<b>150</b>	<b>16.62</b>	<b>125 780</b>	<b>174</b>	<b>18.58</b>
<b>ALLOCATION OF FUNDS</b>						
Add back depreciation	32 562	45	4.98	31 820	44	4.70
Reverse stock value adjustment	-15 914	-22	-2.43	-279	0	-0.04
Income equalisation	0	0	0.00	0	0	0.00
Off-farm income	2 750	4	0.42	2 268	3	0.34
<b>Discretionary cash</b>	<b>128 059</b>	<b>177</b>	<b>19.59</b>	<b>159 588</b>	<b>221</b>	<b>23.58</b>
<b>APPLIED TO:</b>						
Net capital purchases	22 364	31	3.42	17 136	24	2.53
Development	3 940	5	0.60	4 475	6	0.66
Principal repayments	12 187	17	1.86	7 422	10	1.10
Drawings	62 000	86	9.48	62 500	86	9.23
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>27 568</b>	<b>38</b>	<b>4.22</b>	<b>68 055</b>	<b>94</b>	<b>10.05</b>
<b>Farm surplus for reinvestment<sup>2</sup></b>	<b>63 309</b>	<b>88</b>	<b>9.68</b>	<b>94 820</b>	<b>131</b>	<b>14.01</b>
<b>ASSETS AND LIABILITIES</b>						
Farm, forest and building (opening)	4 240 000	5 864	648.47	4 000 000	5 533	590.99
Plant and machinery (opening)	182 080	252	27.85	177 130	245	26.17
Stock valuation (opening)	674 981	934	103.23	690 895	956	102.08
Other produce on hand (opening)	0	0	0.00	0	0	0.00
<b>Total farm assets (opening)</b>	<b>5 097 061</b>	<b>7 050</b>	<b>779.55</b>	<b>4 868 025</b>	<b>6 733</b>	<b>719.24</b>
<b>Total assets (opening)</b>	<b>5 114 243</b>	<b>7 074</b>	<b>782.18</b>	<b>5 102 775</b>	<b>7 058</b>	<b>753.93</b>
Total liabilities (opening)	648 500	897	99.18	573 004	793	84.66
<b>Total equity (farm assets - liabilities)</b>	<b>4 448 561</b>	<b>6 153</b>	<b>680.37</b>	<b>4 295 021</b>	<b>5 941</b>	<b>634.58</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: SOUTHLAND/SOUTH OTAGO HILL COUNTRY 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	31 354	43	4.80	34 119	47	5.04
Casual wages	3 228	4	0.49	3 761	5	0.56
ACC	1 593	2	0.24	3 255	5	0.48
<b>Total labour expenses</b>	<b>36 174</b>	<b>50</b>	<b>5.53</b>	<b>41 135</b>	<b>57</b>	<b>6.08</b>
Animal health	21 671	30	3.31	22 495	31	3.32
Breeding	5 100	7	0.78	5 402	7	0.80
Electricity	4 018	6	0.61	4 171	6	0.62
Feed (hay and silage)	8 958	12	1.37	13 401	19	1.98
Feed (feed crops)	4 512	6	0.69	4 513	6	0.67
Feed (grazing)	9 024	12	1.38	6 564	9	0.97
Feed (other)	1 186	2	0.18	1 231	2	0.18
Fertiliser	60 336	83	9.23	64 683	89	9.56
Lime	10 210	14	1.56	14 017	19	2.07
Cash crop expenses <sup>2</sup>	0	0	0.00	0	0	0.00
Freight (not elsewhere deducted)	5 994	8	0.92	5 743	8	0.85
Regrassing costs	7 904	11	1.21	7 658	11	1.13
Shearing expenses	25 321	35	4.58	26 300	36	4.57
Weed and pest control	8 629	12	1.32	8 137	11	1.20
Fuel	14 030	19	2.15	15 111	21	2.23
Vehicle costs (excluding fuel)	13 240	18	2.02	12 649	17	1.87
Repairs and maintenance	28 785	40	4.40	27 829	38	4.11
<b>Total other working expenses</b>	<b>228 917</b>	<b>317</b>	<b>35.01</b>	<b>239 904</b>	<b>332</b>	<b>35.45</b>
Communication costs (phone and mail)	2 832	4	0.43	3 008	4	0.44
Accountancy	4 282	6	0.65	4 034	6	0.60
Legal and consultancy	1 252	2	0.19	1 028	1	0.15
Other administration	1 581	2	0.24	1 778	2	0.26
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	10 577	15	1.62	11 254	16	1.66
Insurance	6 982	10	1.07	7 316	10	1.08
ACC employer	7 265	10	1.11	9 829	14	1.45
Other expenditure	5 796	8	0.89	5 470	8	0.81
<b>Total overhead expenses</b>	<b>40 567</b>	<b>56</b>	<b>6.20</b>	<b>43 718</b>	<b>60</b>	<b>6.46</b>
<b>Total farm working expenses</b>	<b>305 658</b>	<b>423</b>	<b>46.75</b>	<b>324 757</b>	<b>449</b>	<b>47.98</b>
<b>CALCULATED RATIOS</b>						
Economic farm surplus (EFS <sup>3</sup> )	121 512	168	18.58	130 728	181	19.31
Farm working expenses/NCI <sup>4</sup>	59%			58%		
EFS/total farm assets	2.4%			2.7%		
EFS less interest and lease/equity	1.6%			1.9%		
Interest+rent+lease/NCI	9.7%			8.6%		
EFS/NCI	23.4%			23.3%		
Wages of management	75 000	104	11.47	75 000	104	11.08

**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 SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF FARM MODEL IN 2009/10

The cash operating surplus for the 2009/10 year was \$213 200. This was down slightly on 2008/09 because of lower lamb prices and increased farm working expenses.

### REVENUE UP 7 PERCENT

Net cash income was \$518 800 in 2009/10, or \$79 per stock unit, \$3 per stock unit more than in 2008/09. Returns from cattle increased \$100 per head because cattle were sold at heavier carcass weights and prices improved towards the end of the season.

Lambing improved from 126 percent to 136 percent in 2009/10, but this was offset by a reduction in the average lamb price from \$82.85 in 2008/09 to \$74.08 in 2009/10. High exchange rates reduced the farm gate returns for lamb. Total sheep revenue improved \$11 700 or \$1.40 per stock unit.



### CATTLE RETURNS LIFT \$100 PER HEAD

Profitability of the cattle enterprise on monitored farms has improved in 2009/10. This was due to farmers improving the weights of cattle sold and late season prices lifting to \$3.40 per kilogram carcass weight for steers. The increase in sale weights is a return to usual after the low sale weights in 2008/09 due to drought.

### WOOL PRODUCTION AND RETURNS IMPROVE

Wool prices lifted in 2009/10 despite higher exchange rates. The average wool price increased 4 percent from \$2.32 per kilogram greasy in 2008/09 to \$2.42 in 2009/10. The main driver was improved international demand for wool. The resurgence in wool prices revived farmer interest in wool, stimulating debate regarding industry reform. Wool production increased 4 percent with about half of this lift being attributed to increases in sheep numbers. A 2 percent increase in wool produced per ewe was credited to the good condition of ewes during the autumn and spring of 2009.

### DAIRY GRAZING INCREASING

In 2009/10 the farm model received \$24.50 per week for winter grazing dairy cows and revenue from this source is now \$10 300. As profitability levels improve these farmers have looked for novel ways to develop new country. Many farmers have identified that winter grazing dairy cows can often pay for all or most of costly crop rotations. With dairy farming expanding on the plains, hill properties provide free draining and often well sheltered wintering locations for cows.

### CLIMATE CONDITIONS MILD BUT NOT WITHOUT CHALLENGE

The 2009 winter was dry but cold. Much of the feed growth expected during winter did not happen, creating tight feed budgets which can be risky for lambing at spring. This risk was abated with mild lambing conditions allowing for good stock survival. The months of December and January were cool and wet contributing to poor establishment of brassicas, which reduced the 2010 winter feed supply. Autumn growth rates were below average adding to a season where only small amounts of supplements have been made and many farmers have sought alternative grazing or feed.

### SIGNIFICANT RISE IN EXPENDITURE

Total farm working expenses increased 17 percent to \$305 700 in 2009/10, due to increased feed costs and a catch up of deferred expenditure on fertiliser and maintenance.

Increased expenditure showed a continuation in confidence from the 2008/09 year as lamb prices remain at a level where profits can be achieved in this model.

### FEED EXPENSES UP 31 PERCENT

Cool weather during late spring and autumn reduced the feed available for stock and supplement making. Consequently supplement harvesting expenses dropped by 17 percent. This reduction was more than offset by the cost of grazing and purchasing other feed which was not required at all in 2008/09. Total feed expenses were \$18 000 compared with \$23 700 in 2008/09.

### REPAIRS AND MAINTENANCE COSTS UP 17 PERCENT

Repairs and maintenance costs increased 17 percent to \$28 800 in 2009/10 compared with \$24 700 in 2008/09 as farmers continue to catch up on deferred maintenance. These items include house repairs, fences, other buildings, drainage, tracks and plant.

### FERTILISER EXPENDITURE DECLINES 5 PERCENT

Fertiliser prices fell 16 percent over the year but fertiliser expenditure only reduced 5 percent to \$60 300, as farmers took advantage of the lower prices to increase their fertiliser application to just below maintenance level. For many farmers this expenditure was a necessity as maintenance fertiliser had been deferred from years past.

### REGRASSING UP AS FARMERS DEVELOP NEW AREAS

Regrassing expenditure was up 41 percent to \$7900 in 2009/10 as farmers increased the area of winter crop in order to develop areas of the farm. Part of this crop was fed to cows which is a new development for these farmers. Many farmers have identified winter grazing of cows as a way of funding land development. Most of this development has been done on areas that have been partially developed over the last 30 years but have reverted to poor performing pastures or scrub weeds.

### INTEREST RATES DECREASE

Interest payments fell 4 percent to \$50 500 because farmers switched to floating rates as term loans on fixed rates came up for renewal. The full effect of declining interest rates is not recognised in this model as many loans remain fixed and some farmers chose to re-fix.

### NET RESULT FALLS

Farm profit before tax fell 9 percent to \$146 100 during 2009/10. Tax due has increased dramatically to \$37 400 because of terminal tax payments on last year's record profit. Overall the model budget is showing a healthy farm surplus for reinvestment of \$63 300 and a cash surplus of \$27 600, indicating the financial strength of these large scale, high performing, hill country properties.

Industry commentators have found it challenging to estimate land values with a lack of sales providing no point of comparison. Valuers estimate that land value fell approximately 8 percent early in the 2009/10 year to about \$5900 per hectare, and has been reasonably stable since.

»»» **TABLE 4: SOUTHLAND/SOUTH OTAGO HILL COUNTRY 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	261 922	271 690	370 660	370 429	405 063
Cattle sales less purchases	52 609	52 692	55 703	63 928	65 069
Wool	64 359	61 621	56 289	60 692	61 250
Grazing income (including hay and silage sales)	0	6 088	6 100	10 290	14 400
Other income	4 500	0	0	13 480	16 243
Net cash income	383 390	392 091	488 752	518 819	562 025

**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.

## **BUDGET FINANCIAL PERFORMANCE OF THE SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF FARM MODEL IN 2010/11**

The cash operating surplus for 2010/11 is expected to rise 11 percent to \$237 300. Key factors include greater hogget and ewe sales and an increase in dairy cow winter grazing.

### **LIFT IN HOGGET REPLACEMENTS AND EWE NUMBERS**

Farmers plan to lift their hogget replacement numbers from 25 percent in 2009/10 to 29 percent in 2010/11. The high number of replacements in 2010/11 is in anticipation of selling dry hoggets onto a high priced winter lamb market or as two toothes. Farmers are also intending to move to a younger flock by keeping more breeding hoggets and as a result the number of cull ewes sold is also expected to increase.

### **LAMB PRICE TO IMPROVE**

Farmers remain cautious but optimistic about lamb prices even though industry commentators continue to refer to exchange rates and commodity markets as “volatile”. The average lamb price is expected to increase \$1.93 in 2010/11. Industry commentators expect no change in store lamb prices because of the low sheep numbers throughout the South Island. The slight increase in the average price is expected to be negated by a 2 percentage point fall in lambing percentage. Ewe body weights over mating were only average because of the cool autumn conditions and most farmers are expecting lambing results to be down on 2009/10.

### **TOTAL FARM EXPENDITURE IS EXPECTED TO RISE 6 PERCENT**

Farm working expenditure is budgeted to increase 6 percent from \$305 700 in 2009/10 to \$324 800 in 2010/10.

### **FERTILISER AND LIME LEVELS UP SIGNIFICANTLY**

Fertiliser spending is budgeted to increase 7 percent to \$64 700 in 2010/11 due to an expected slight rise in price and increased usage. Lime expenditure is expected to rise 37 percent to \$14 000 in 2010/11. Many farmers use lime during crop rotations and the expansion of these systems for dairy grazing will require extra lime.

### **FUEL PRICE LIFT EXPECTED WITH EMISSION TRADING SCHEME (ETS) COMING INTO ACTION**

Farmers expect a lift in fuel prices by 8 percent and attribute some of the increase to the ETS. Farmers are nervous about the flow on effect of the ETS as costs are passed down to them. Most are well aware that it is difficult for them to transfer this cost to the consumer.

### **FEED-MAKING COSTS UP 50 PERCENT**

Feed expenditure is predicted to increase 9 percent to \$25 700. Feed conservation costs are expected to increase because of the effect of the ETS on contractors' charges and because an expected return to a more typical pasture growth season will increase the requirement for hay and silage making. Grazing costs are predicted to fall with a return to usual climatic conditions and less need for bought in feed.

### **MOST OTHER COSTS HELD**

Spending on animal health, breeding, electricity, fuel and rates is expected to increase slightly in 2010/11, due to an expected increase in costs. However, farmers plan to keep other farm expenses such as freight, regrassing, weed and pest control, vehicle costs, repairs and maintenance and administration at levels similar to, or lower than, the 2009/10 year as they strive to maintain profits.

### **INTEREST EXPENDITURE STEADY**

Interest costs in 2010/11 are predicted to be similar to 2009/10 with a slight rise in term loan interest rates expected. This is predicted to be offset by slightly lower overdraft levels following the good cash surplus in 2009/10.

## NET RESULT IMPROVES

Farm profit before tax is budgeted to increase 8 percent, up from \$146 100 in 2009/10 to \$157 200 in 2010/11.

After capital purchases, tax, development, drawings, and principal repayment, the model is expected to have a cash surplus of \$68 100.

The return on capital improves from 2.4 percent in 2009/10 to an expected 2.7 percent in 2010/11.

## INFORMATION ABOUT THE MODEL

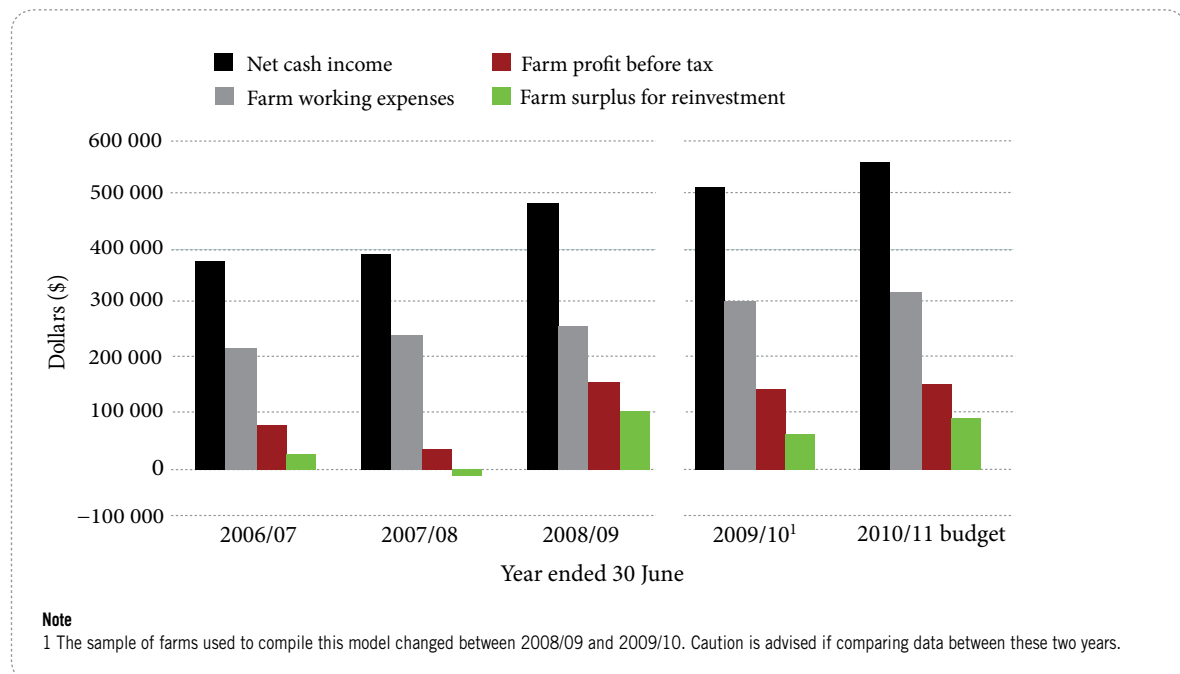
This model represents 720 farms in the moderately rolling clay downlands to steeper hill country in South Otago and Southland. They are farms that tend to have mostly cultivated pastures with the balance in improved but steeper hill land tussock blocks.

Stock systems tend to be made up of breeding ewes with some lambing hoggets. The majority of lambs are finished with some store lambs that may be sold in certain years. There is a herd of breeding cows with their best calves finished. This is the first year dairy cow grazing has been included in this model as farmers look for systems that support land development and profitability.

A new stocking rate calculation has been used for the 2009/10 model onward. The stocking rate calculation more closely relates to production stock units within the Lincoln Farm Technical Manual. In the current model breeding ewes are equivalent to 1.2 traditional stock units.

For more information on this model contact: [trish.burborough@maf.govt.nz](mailto:trish.burborough@maf.govt.nz)

»» FIGURE 1: SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF MODEL PROFITABILITY TRENDS



**PUBLISHER**

Ministry of Agriculture and Forestry  
PO Box 2526, Wellington 6140, New Zealand  
Tel +64 4 894 0100 or Freephone 0800 008 333  
Email: [policy.publications@maf.govt.nz](mailto:policy.publications@maf.govt.nz)  
Web: [www.maf.govt.nz](http://www.maf.govt.nz)



ISBN 978-0-478-36383-8 (Online)

© Crown copyright – Ministry of Agriculture and Forestry 2010

**DISCLAIMER**

The information in this report by the Ministry of Agriculture and Forestry is based on the best information available to the the Ministry at the time it was drawn up and all due care was exercised in its preparation. As it is not possible to foresee all uses of this information or to predict all future developments and trends, any subsequent action that relies on the accuracy of the information in this report is the sole commercial decision of the user and is taken at his/her own risk. Accordingly, the Ministry of Agriculture and Forestry disclaims any liability whatsoever for any losses or damages arising out of the use of this information, or in respect of any actions taken.

**New Zealand Government**