



SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF

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

KEY POINTS

- After poor lambing in 2010/11, the 2011/12 lambing percentage increased by 13 percentage points, returning to near record levels of 134 percent. Hogget mating is becoming a feature of the farm model, with farmers mating 4 percent more hoggets in both 2011/12 and 2012/13. Hogget lambing was also more successful in 2011/12, with 7 percent more lambs sold from hoggets mated.
- Net cash income increased 10 percent to \$783 100 in 2011/12 due to increased lamb sales and improved wool prices. It is expected to fall 10 percent to \$705 600 in 2012/13.
- Expenditure increased 9 percent to \$363 500 in 2011/12, as farmers spent more on fertiliser, repairs and maintenance and

costs associated with an increased stocking rate. Expenditure is expected to decrease 2 percent in 2012/13.

- Farm surplus for reinvestment increased 8 percent or \$18 200 to \$234 300 in 2011/12. The distribution of the surplus changed as farmers shifted from paying off principal to increasing capital purchases. Consequently, the cash surplus did not change significantly between 2010/11 and 2011/12. The farm surplus for reinvestment is expected to fall to \$149 500 in 2012/13.
- Farmer morale is very good, with consistent returns providing opportunities for profits. An element of concern exists as farmers recognise their inability to control product price factors such as the exchange rate and commodity prices.

Table 1: Key parameters, financial results and budget for the Southland/South Otago hill country 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) | 723 | 723 | 723 | 723 | 723 |
| Breeding ewes (head) | 3 956 | 3 977 | 4 021 | 4 061 | 4 102 |
| Replacement ewe hoggets (head) | 887 | 997 | 1 150 | 1 181 | 1 252 |
| Other sheep (head) | 86 | 76 | 71 | 48 | 48 |
| Breeding cows (head) | 106 | 93 | 91 | 97 | 89 |
| Rising one-year cattle (head) | 87 | 79 | 87 | 70 | 74 |
| Other cattle (head) | 4 | 26 | 18 | 24 | 17 |
| Opening sheep stock units (ssu) | 4 642 | 5 529 | 5 476 | 5 951 | 6 077 |
| Opening cattle stock units | 961 | 1 010 | 943 | 938 | 874 |
| Opening total stock units (su) | 5 603 | 6 538 | 6 419 | 6 889 | 6 951 |
| Stocking rate (stock unit/ha) | 7.7 | 9.0 | 8.9 | 9.5 | 9.6 |
| Ewe lambing (%) | 126 | 136 | 121 | 134 | 134 |
| Average lamb price (\$/head) | 82.85 | 74.08 | 110.24 | 106.60 | 98.73 |
| Average store lamb price (\$/head) | 69.64 | 65.00 | 100.39 | 101.04 | 88.37 |
| Average prime lamb price (\$/head) | 85.70 | 75.47 | 111.99 | 108.66 | 100.71 |
| Average wool price (\$/kg) | 2.32 | 2.42 | 3.56 | 4.25 | 3.50 |
| Total wool produced (kg) | 24 262 | 25 113 | 24 066 | 26 677 | 27 243 |
| Wool production (kg/ssu) | 5.2 | 4.5 | 4.4 | 4.5 | 4.5 |
| Average rising two-year steer (\$/head) | 856 | 839 | 982 | 955 | 929 |
| Average cull cow (\$/head) | 598 | 695 | 866 | 836 | 753 |
| Net cash income (\$) | 488 752 | 518 819 | 713 853 | 783 123 | 705 586 |
| Farm working expenses (\$) | 260 971 | 305 658 | 332 396 | 363 549 | 357 799 |
| Farm profit before tax (\$) | 160 730 | 146 053 | 314 323 | 358 142 | 318 408 |
| Farm surplus for reinvestment (\$)² | 105 583 | 63 309 | 216 146 | 234 323 | 149 528 |

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: Southland/South Otago hill country 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 | 596 541 | 825 | 100.24 | 529 176 | 732 | 87.08 |
| Wool | 113 376 | 157 | 19.05 | 95 349 | 132 | 15.69 |
| Cattle | 93 058 | 129 | 99.24 | 85 492 | 118 | 97.82 |
| Grazing income (including hay and silage sales) | 12 400 | 17 | 1.80 | 19 200 | 27 | 2.76 |
| Other farm income | 5 618 | 8 | 0.82 | 5 724 | 8 | 0.82 |
| Less: | | | | | | |
| Sheep purchases | 22 495 | 31 | 3.78 | 11 102 | 15 | 1.83 |
| Cattle purchases | 15 375 | 21 | 16.40 | 18 253 | 25 | 20.89 |
| Net cash income | 783 123 | 1 083 | 113.68 | 705 586 | 976 | 101.51 |
| Farm working expenses | 363 549 | 503 | 52.78 | 357 799 | 495 | 51.47 |
| Cash operating surplus | 419 575 | 580 | 60.91 | 347 788 | 481 | 50.03 |
| Interest | 37 177 | 51 | 5.40 | 38 457 | 53 | 5.53 |
| Rent and/or leases | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Stock value adjustment | 3 289 | 5 | 0.48 | 47 332 | 65 | 6.81 |
| Minus depreciation | 27 545 | 38 | 4.00 | 38 254 | 53 | 5.50 |
| Farm profit before tax | 358 142 | 495 | 51.99 | 318 408 | 440 | 45.81 |
| Income equalisation | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Taxation | 75 565 | 105 | 10.97 | 90 026 | 125 | 12.95 |
| Farm profit after tax | 282 576 | 391 | 41.02 | 228 383 | 316 | 32.86 |
| Allocation of funds | | | | | | |
| Add back depreciation | 27 545 | 38 | 4.00 | 38 254 | 53 | 5.50 |
| Reverse stock value adjustment | -3 289 | -5 | -0.48 | -47 332 | -65 | -6.81 |
| Drawings | 72 509 | 100 | 10.53 | 69 776 | 97 | 10.04 |
| Farm surplus for reinvestment² | 234 323 | 324 | 34.02 | 149 528 | 207 | 21.51 |
| Reinvestment | | | | | | |
| Net capital purchases | 98 000 | 136 | 14.23 | 30 000 | 41 | 4.32 |
| Development | 1 765 | 2 | 0.26 | 12 491 | 17 | 1.80 |
| Principal repayments | 67 000 | 93 | 9.73 | 23 000 | 32 | 3.31 |
| Farm cash surplus/deficit | 67 558 | 93 | 9.81 | 84 037 | 116 | 12.09 |
| Other cash sources | | | | | | |
| Off-farm income | 1 020 | 1.41 | 0.15 | 951 | 1.32 | 0.14 |
| New borrowings | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Introduced funds | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Net cash position | 68 577 | 95 | 9.96 | 84 988 | 118 | 12.23 |
| Assets and liabilities | | | | | | |
| Farm, forest and building (opening) | 4 240 000 | 5 864 | 615.51 | 4 408 431 | 6 097 | 634.21 |
| Plant and machinery (opening) | 177 130 | 245 | 25.71 | 248 561 | 344 | 35.76 |
| Stock valuation (opening) | 1 019 470 | 1 410 | 147.99 | 1 022 759 | 1 415 | 147.14 |
| Other produce on hand (opening) | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Total farm assets (opening) | 5 436 600 | 7 520 | 789.22 | 5 679 750 | 7 856 | 817.11 |
| Total assets (opening) | 5 453 782 | 7 543 | 791.71 | 5 772 012 | 7 983 | 830.38 |
| Total liabilities (opening) | 407 366 | 563 | 59.14 | 347 889 | 481 | 50.05 |
| Total equity (farm assets - liabilities) | 5 029 234 | 6 956 | 730.08 | 5 331 861 | 7 375 | 767.06 |

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: Southland/South Otago hill country 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 | 30 216 | 42 | 4.39 | 30 906 | 43 | 4.45 |
| Casual wages | 6 354 | 9 | 0.92 | 6 526 | 9 | 0.94 |
| ACC | 1 168 | 2 | 0.17 | 1 032 | 1 | 0.15 |
| Total labour expenses | 37 739 | 52 | 5.48 | 38 463 | 53 | 5.53 |
| Animal health | 22 871 | 32 | 3.32 | 24 559 | 34 | 3.53 |
| Breeding | 6 579 | 9 | 0.96 | 6 150 | 9 | 0.88 |
| Electricity | 4 055 | 6 | 0.59 | 4 282 | 6 | 0.62 |
| Feed (hay and silage) | 11 095 | 15 | 1.61 | 10 488 | 15 | 1.51 |
| Feed (feed crops) | 2 905 | 4 | 0.42 | 3 637 | 5 | 0.52 |
| Feed (grazing) | 10 870 | 15 | 1.58 | 9 496 | 13 | 1.37 |
| Feed (other) | 874 | 1 | 0.13 | 873 | 1 | 0.13 |
| Fertiliser | 76 236 | 105 | 11.07 | 86 306 | 119 | 12.42 |
| Lime | 19 018 | 26 | 2.76 | 11 608 | 16 | 1.67 |
| Cash crop expenses ¹ | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Freight (not elsewhere deducted) | 4 897 | 7 | 0.71 | 5 672 | 8 | 0.82 |
| Regrassing costs | 10 117 | 14 | 1.47 | 10 055 | 14 | 1.45 |
| Shearing expenses ² | 27 145 | 38 | 4.56 | 28 249 | 39 | 4.65 |
| Weed and pest control | 10 919 | 15 | 1.59 | 10 184 | 14 | 1.47 |
| Fuel | 20 019 | 28 | 2.91 | 20 703 | 29 | 2.98 |
| Vehicle costs (excluding fuel) | 15 682 | 22 | 2.28 | 14 355 | 20 | 2.07 |
| Repairs and maintenance | 42 442 | 59 | 6.16 | 31 665 | 44 | 4.56 |
| Total other working expenses | 285 723 | 395 | 41.48 | 278 282 | 385 | 40.03 |
| Communication costs (phone and mail) | 2 865 | 4 | 0.42 | 2 836 | 4 | 0.41 |
| Accountancy | 4 496 | 6 | 0.65 | 4 582 | 6 | 0.66 |
| Legal and consultancy | 2 537 | 4 | 0.37 | 2 334 | 3 | 0.34 |
| Other administration | 2 135 | 3 | 0.31 | 2 173 | 3 | 0.31 |
| Water charges (irrigation) | 0 | 0 | 0.00 | 0 | 0 | 0.00 |
| Rates | 10 134 | 14 | 1.47 | 10 672 | 15 | 1.54 |
| Insurance | 7 738 | 11 | 1.12 | 8 283 | 11 | 1.19 |
| ACC employer | 4 641 | 6 | 0.67 | 4 467 | 6 | 0.64 |
| Other expenditure | 5 541 | 8 | 0.80 | 5 706 | 8 | 0.82 |
| Total overhead expenses | 40 087 | 55 | 5.82 | 41 054 | 57 | 5.91 |
| Total farm working expenses | 363 549 | 503 | 52.78 | 357 799 | 495 | 51.47 |
| Calculated ratios | | | | | | |
| Economic farm surplus (EFS ³) | 320 319 | 443 | 46.50 | 281 865 | 390 | 40.55 |
| Farm working expenses/NCI ⁴ | 46% | | | 51% | | |
| EFS/total farm assets | 5.9% | | | 5.0% | | |
| EFS less interest and lease/equity | 5.6% | | | 4.6% | | |
| Interest+rent+lease/NCI | 4.7% | | | 5.5% | | |
| EFS/NCI | 40.9% | | | 39.9% | | |
| Wages of management | 75 000 | 104 | 10.89 | 75 000 | 104 | 10.79 |

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 SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF FARM MODEL IN 2011/12

The cash operating surplus for the farm model rose 10 percent to \$419 600 in 2011/12 as the growth in revenue (\$69 300), due primarily to increased numbers of lambs sold and improved wool prices, offset increased farm expenditure (\$31 200).

SIGNIFICANT LIFT IN REVENUE

Net cash income increased 10 percent or \$69 300 to \$783 100 in 2011/12. Increased lamb numbers offset the fall in the average lamb price and, despite a seasonal trend downwards, the average wool price remained higher than 2010/11.

Sheep income increases 9 percent

Sheep revenue (sales less purchases) increased \$45 400 to \$574 000 in 2011/12. The main feature was an increase in lamb numbers sold, as the lambing percentage rose from 121 percent in 2010/11 to 134 percent in 2011/12. A short storm during lambing had only a minor impact due to the timing of the event.

Store lambs also became a feature for the farm model, with 27 percent of lambs sold store (compared with 15 percent in 2010/11) due to a dry summer, which encouraged farmers to quit the lambs early. A rapidly declining schedule made this decision easier, with store lambs in the farm model averaging \$101.04 per head, only \$7.62 less than the average finished lamb price.

Wool income improved 32 percent

Wool income improved \$27 800 to \$113 400 in 2011/12. Although wool prices trended downward for most of the season, the average price for the model, of \$4.25 per kilogram, was higher than the 2010/11 year, giving an improved result.

Grazing income increases but cattle revenue steady

Income from grazing dairy cows over winter doubled to \$12 400 in 2011/12, as farmers increased cow numbers.

Cattle revenue (sales less purchases) was similar to 2010/11, with fewer trading cattle purchased and more cattle sold at lighter weights and younger age classes due to the dry summer conditions.

FARM WORKING EXPENDITURE INCREASES

Farm working expenditure increased 9 percent to \$363 500 in 2011/12. Increased profits over the past five years have stimulated spending on farm inputs that support higher farm performance, such as fertiliser and repairs and maintenance. The 2011/12 expenditure is a continuation of this trend, with many of the costs relating to production showing a significant increase.

Fertiliser and lime expenditure up

Fertiliser expenditure was up \$8600 and lime up \$5600, with the combined cost in 2011/12 totalling \$95 300. Some of this increase was associated with a carry over of application from the 2010/11 year when a fertiliser shortage resulted in reduced application.

Repairs and maintenance increase 21 percent

Repairs and maintenance expenditure in 2011/12 lifted 21 percent or \$7300 to \$42 400 (\$59 per hectare). Repairs and maintenance costs have trended up in recent times showing farmer confidence to invest in the quality of their drainage, fences and plant and machinery.

NET RESULT SIGNIFICANTLY IMPROVES

Farm profit before tax in 2011/12 increased by 14 percent or \$43 800 to \$358 100. This was due to the improved cash operating surplus, a reduction in the interest cost because of the repayment of principal in 2010/11 plus a reduction in depreciation on buildings able to be claimed for taxation purposes. Despite increases in taxation of \$23 400 and drawings of \$4900, the farm surplus for reinvestment increased 8 percent to \$234 300. However, the cash surplus in 2011/12 was similar to the previous year as capital purchases increased \$71 600 to \$98 000. Principal repayments decreased 39 percent to \$67 000.

BUDGET FINANCIAL PERFORMANCE OF THE SOUTHLAND/SOUTH OTAGO HILL COUNTRY SHEEP AND BEEF MODEL FARM IN 2012/13

The 2012/13 budgeted cash operating surplus for the farm model is expected to decrease 17 percent to \$347 800 because of a predicted fall in lamb and wool prices. Despite the declining prices, stock numbers are expected to increase 5 percent as farmers continue to improve the carrying capacity of their land. This will also result in less stock being made available for sale, reducing potential revenue.

NET CASH INCOME EXPECTED TO FALL 10 PERCENT

Net cash income is expected to decline \$77 500 to \$705 600 in 2012/13 because of anticipated falls in sheepmeat, wool and cattle prices.

SHEEP INCOME EXPECTED TO FALL 10 PERCENT

Sheep revenue (sales less purchases) is expected to decline \$56 000 in 2012/13 because of an anticipated fall in the lamb price of \$7.87 to an average \$98.73 per head. Mutton prices are also expected to decline from \$120.03 per head in 2011/12 to \$97.86 in 2012/13.

Wool income expected to fall 16 percent

Wool income is expected to decrease \$18 000 to \$95 300 in 2012/13 because of an anticipated fall in wool prices to \$3.50 per kilogram. Prices fell rapidly at the end of 2011/12, and many farmers have stored wool hoping some wool price recovery will occur.

Cattle income budgeted to fall 9 percent but partially offset by dairy grazing

Farmers are expecting income from cattle to decline, with land improvement reducing the area suitable for beef cows. As well as animal numbers declining, performance gains are encouraging farmers to sell cattle before their second winter, albeit at a lower weight and price.

Dairy cow grazing is expected to increase as farmers in this model show a willingness to lift cow numbers in 2012/13 by 30 over the winter period. At a budgeted \$30 per cow per week, the additional income from these cows is \$6800. These farmers continue to view cows as a viable income source on hill country.

EXPENDITURE EXPECTED TO REMAIN STEADY

Farm working expenses are expected to fall only slightly, with a 2 percent decline to \$357 800 in 2012/13.

Fertiliser up 13 percent

Farmers expect to increase fertiliser expenditure by \$10 100 in 2012/13, with an emphasis being placed on phosphate applications. The extra phosphate is attributed to farmers being willing to develop the fertility status of the farm and also increase maintenance fertiliser applications to cope with a stocking rate that is trending upwards.

Farmers expect to spend \$7400 less on lime with a return to typical levels helping to justify the increased fertiliser spending.

Table 4: Southland/South Otago hill country 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 | 370 660 | 370 429 | 528 622 | 574 046 | 518 074 |
| Cattle sales less purchases | 55 703 | 63 928 | 83 880 | 77 683 | 67 239 |
| Wool | 56 289 | 60 692 | 85 577 | 113 376 | 95 349 |
| Grazing income (including hay and silage sales) | 6 100 | 10 290 | 6 000 | 12 400 | 19 200 |
| Other income | 0 | 13 480 | 9 774 | 5 618 | 5 724 |
| Net cash income | 488 752 | 518 819 | 713 853 | 783 123 | 705 586 |

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.

Repairs and maintenance down 25 percent

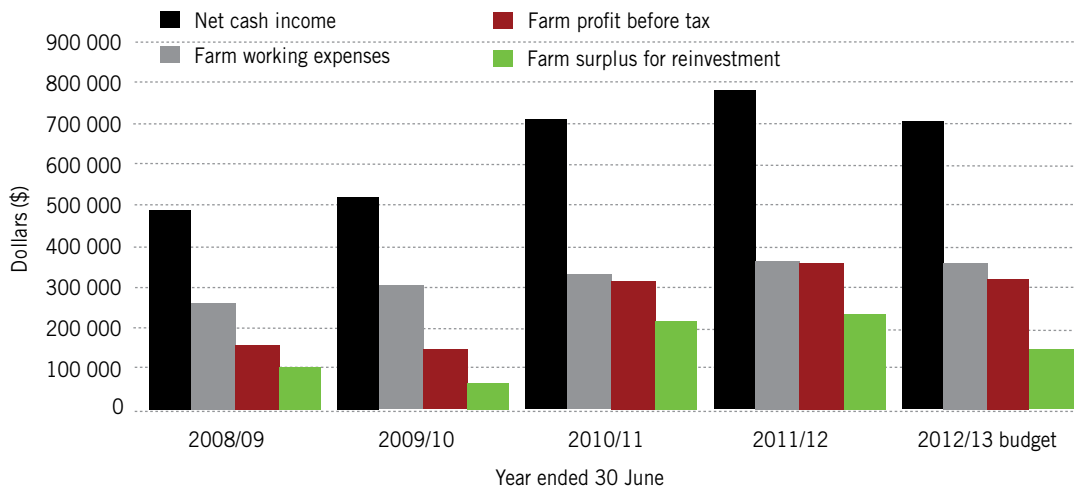
Repairs and maintenance expenditure is budgeted to decline 25 percent or \$10 800, as farmers return to typical spending. Similarly, spending on vehicles and feed is also expected to decline.

NET RESULT DECLINES

Farm profit before tax is budgeted to decline 11 percent or \$39 700 to \$318 400 in 2012/13. With tax payments expected to increase by \$14 500, the total reduction in farm profit after tax is \$54 200. This decline is expected to be offset by a \$68 000 reduction in net capital

purchases and a \$44 000 reduction in principal repayments. When considered in conjunction with a \$10 700 increase in development expenses, the farm cash surplus is expected to increase 24 percent to \$84 000. From 2010 to 2012, farmers have committed significant portions of surpluses to principal repayment and capital expenditure. As returns are expected to decline, farmers anticipate reducing their payments in these areas.

Figure 1: Southland/South Otago hill country sheep and beef model profitability trends



INFORMATION ABOUT THE MODEL

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

Stock systems comprise 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 the best calves finished. Dairy cow grazing is included in this model and is steadily increasing.

Farm monitoring models calculate sheep stock units based on lambing performance. One standard sheep stock unit is based on a ewe

lambing between 111 percent and 120 percent. Based on the lambing percentage for this model, breeding ewe numbers were multiplied by 1.2 stock units in both years. Any per stock unit calculations or indices should take this into account when comparing with other sources of financial information.

Please note that the sample of farms has changed between 2008/09 and 2009/10. Caution should be taken if comparing data between these two years.

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ISBN 978-0-478-40422-7 (Print)
ISBN 978-0-478-40423-4 (Online)

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