FARM MONITORING 2012

SOUTH ISLAND DEER

KEY POINTS

- Physical production in the 2011/12 season was limited in the southern areas by a cold wet spring and dry December conditions. This was in contrast with conditions further north in the South Island, where farmers experienced above-average growth throughout most of the season. Fawning increased to 89 percent for mixed-age hinds and 86 percent for rising two-year hinds.
- Net cash income per deer stock unit increased 14 percent to $119. This was due to more venison being available to sell and average venison returns of $7.77 per kilogram (staying above the long-term price average for most of the season). Additional sales of surplus feed (mostly in Canterbury) increased net cash income by $6.00 per deer stock unit.

Key results from the Ministry for Primary Industries 2012 deer monitoring programme

- Farm profit before tax in 2011/12 increased 8 percent or $3.00 per deer stock unit, compared with 2010/11. This was helped by lower interest rates, better current account balances and increased net cash income.
- Total farm working expenses rose 17 percent as a result of more spending on labour and increased feed costs (either made or purchased), fertiliser, rates and insurance premiums.
- Deer farmers' morale was positive as they had their third season of relative stability in product prices and good levels of feed, which helped stock condition going into the 2012 winter. Looking ahead however, farmers are conscious of the potential impact of European economic woes on a key market for venison and this is reflected in an expected decrease in the average venison price for 2012/13.

Table 1: Key parameters, financial results and budget for the North Island deer model

Year ended 30 June	2008/09	2009/10[1]	2010/11	2011/12 actual	2012/13 budget
Effective area (ha)	201	272	272	272	272
Opening deer stock units (head)	2 748	3 015	3 148	3 152	3 139
Mixed-age breeding hinds (head)	568	640	678	680	680
Rising two-year hinds (head)	82	125	125	125	125
Rising one-year hinds and stags (head)	514	653	649	649	664
Rising two-year stags (head)	78	27	28	28	25
Rising three-year plus stags (head)	109	62	98	98	88
Stocking rate (stock units/ha)	13.7	11.1	11.6	11.6	11.5
Fawning[2]					
Farm average (%)	84	85	86	89	90
Mixed-age hinds (%)	85	87	86	89	91
Two-year-old hinds (%)	77	76	82	86	86
Velvet					
Average price ($/kg)	57.88	91.16	87.25	84.00	84.00
Farm average (includes regrowth but excludes yearling velvet) (kg/stag)	3.4	2.9	4.1	4.3	4.1
Mixed-age stags (kg/stag)	4.2	4.0	3.8	4.2	4.3
Three-year-old stags (kg/stag)	3.6	3.0	2.6	2.9	3.0
Two-year-old stags (kg/stag)	2.3	1.8	1.9	2.0	2.1
Venison price and carcass weights					
Average price ($/kg)	8.31	7.34	7.78	7.77	7.57
Two-year-old stags (kg)	65.0	65.0	65.0	66.0	66.0
Yearling stags (kg)	56.5	55.7	54.0	55.5	56.0
Income					
Net cash income ($)	277 147	277 670	330 304	375 678	365 135
Farm working expenses ($)	138 434	151 847	155 756	182 214	176 786
Farm profit before tax ($)	81 335	81 268	117 786	127 417	140 116
Farm surplus for reinvestment[3] ($)	24 746	21 533	79 659	96 808	90 976

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 Fawning percentage is live calves available for sale as a percentage of hinds mated.

3 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: South Island deer model budget

	2011/12			2012/13 budget		
	Whole farm ($)	Per hectare ($)	Per deer stock unit ($)	Whole farm ($)	Per hectare ($)	Per deer stock unit ($)
Revenue						
Deer sales	282 035	1 037	89.48	278 294	1 023	88.65
Velvet (per stag stock unit)	53 761	198	58.33	54 911	202	61.24
Other farm income	46 756	172	14.83	40 312	148	12.84
Less:						
Deer purchases	6 874	25	2.18	8 382	31	2.67
Net cash income	**375 678**	**1 381**	**119.18**	**365 135**	**1 342**	**116.32**
Farm working expenses	**182 214**	**670**	**57.81**	**176 786**	**650**	**56.32**
Cash operating surplus	**193 464**	**711**	**61.38**	**188 349**	**692**	**60.00**
Interest	31 598	116	10.02	28 493	105	9.08
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	- 2 585	- 10	-0.82	1 204	4	0.38
Minus depreciation	31 865	117	10.11	20 944	77	6.67
Farm profit before tax	**127 417**	**468**	**40.42**	**140 116**	**515**	**44.64**
Income equalisation	0	0	0.00	0	0	0.00
Taxation	19 358	71	6.14	21 580	79	6.87
Farm profit after tax	**108 059**	**397**	**34.28**	**118 536**	**436**	**37.76**
Allocation of funds						
Add back depreciation	31 865	117	10.11	20 944	77	6.67
Reverse stock value adjustment	2 585	10	0.82	- 1 204	- 4	-0.38
Drawings	45 700	168	14.50	47 300	174	15.07
Farm surplus for reinvestment[1]	**96 808**	**356**	**30.71**	**90 976**	**334**	**28.98**
Reinvestment						
Net capital purchases	25 532	94	8.10	37 406	138	11.92
Development	1 745	6	0.55	1 213	4	0.39
Principal repayments	17 145	63	5.44	14 100	52	4.49
Farm cash surplus/deficit	**52 386**	**193**	**16.62**	**38 257**	**141**	**12.19**
Other cash sources						
Off-farm income	0	0	0.00	0	0	0.00
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	11 138	41	3.53	9 783	36	3.12
Net cash position	**63 524**	**234**	**20.15**	**48 040**	**177**	**15.30**
Assets and liabilities						
Farm, forest and building (opening)	2 988 000	10 985	947.94	3 104 471	11 413	988.97
Plant and machinery (opening)	212 430	781	67.39	206 098	758	65.65
Stock valuation (opening)	609 518	2 241	193.37	606 933	2 231	193.35
Other produce on hand (opening)	0	0	0.00	0	0	0.00
Total farm assets (opening)	**3 809 948**	**14 007**	**1208.70**	**3 917 502**	**14 403**	**1247.97**
Total assets (opening)	**3 809 948**	**14 007**	**1208.70**	**3 917 502**	**14 403**	**1247.97**
Total liabilities (opening)	492 035	1 809	156.10	464 890	1 709	148.10
Total equity (farm assets - liabilities)	**3 317 913**	**12 198**	**1052.60**	**3 452 612**	**12 693**	**1099.87**

Notes

1 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: South Island deer model expenditure

	2011/12			2012/13 budget		
	Whole farm ($)	Per hectare ($)	Per deer stock unit ($)	Whole farm ($)	Per hectare ($)	Per deer stock unit ($)
Farm working expenses						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	13 428	49	4.26	16 763	62	5.34
ACC	198	1	0.06	470	2	0.15
Total labour expenses	**13 626**	**50**	**4.32**	**17 233**	**63**	**5.49**
Animal health	12 577	46	3.99	10 767	40	3.43
Breeding	3 089	11	0.98	3 390	12	1.08
Electricity	4 283	16	1.36	4 503	17	1.43
Feed (hay and silage)	16 296	60	5.17	13 278	49	4.23
Feed (feed crops)	2 333	9	0.74	2 040	8	0.65
Feed (grazing)	914	3	0.29	439	2	0.14
Feed (other)	4 129	15	1.31	3 798	14	1.21
Fertiliser	34 925	128	11.08	34 028	125	10.84
Lime	2 837	10	0.90	3 045	11	0.97
Freight (not elsewhere deducted)	3 026	11	0.96	2 951	11	0.94
Regrassing costs	4 917	18	1.56	4 803	18	1.53
Weed and pest control	4 571	17	1.45	5 117	19	1.63
Fuel	13 050	48	4.14	13 435	49	4.28
Vehicle costs (excluding fuel)	11 221	41	3.56	9 135	34	2.91
Repairs and maintenance	21 182	78	6.72	18 207	67	5.80
Total other working expenses	**139 350**	**512**	**44.21**	**128 937**	**474**	**41.07**
Communication costs (phone and mail)	2 058	8	0.65	2 150	8	0.68
Accountancy	3 423	13	1.09	3 440	13	1.10
Legal and consultancy	1 256	5	0.40	575	2	0.18
Other administration	2 020	7	0.64	2 220	8	0.71
Rates	6 800	25	2.16	7 072	26	2.25
Insurance	5 712	21	1.81	7 710	28	2.46
ACC employer	6 266	23	1.99	5 044	19	1.61
Other expenditure	1 702	6	0.54	2 405	9	0.77
Total overhead expenses	**29 237**	**107**	**9.28**	**30 616**	**113**	**9.75**
Total farm working expenses	**182 214**	**670**	**57.81**	**176 786**	**650**	**56.32**
Calculated ratios						
Economic farm surplus (EFS[1])	95 085	350	30.17	96 026	353	30.59
Farm working expenses/NCI[2]	49%			48%		
EFS/total farm assets	2.5%			2.5%		
EFS less interest and lease/equity	1.9%			2.0%		
Interest+rent+lease/NCI	8.4%			7.8%		
EFS/NCI	25.3%			26.3%		
Wages of management	69 099	254	21.92	70 175	258	22.36

Notes
1 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.
2 Net cash income.

FINANCIAL PERFORMANCE OF THE SOUTH ISLAND DEER MODEL IN 2011/12

The 2011/12 cash operating surplus for the South Island deer model was $193 500 ($61.38 per stock unit). This was an 11 percent increase on the 2010/11 cash operating surplus and was driven by greater production, good product prices and sales from surplus feed grown on-farm.

Good season for some, patchy for others

The 2011/12 season had a range of climatic challenges, with a cold late spring followed by a dry early summer in South Otago and Southland. However, reasonable rainfall from mid-summer to the end of autumn resulted in an autumn recovery in pasture growth rates and good feed conditions heading into winter 2012.

Canterbury experienced one of its more favourable seasons in 2011/12, with a mild winter and good rainfall resulting in above-average pasture growth rates and surplus feed. This extra growth created challenges in maintaining pasture quality and making extra supplementary feed, but it also created opportunities to sell surplus feed.

The autumn growth rates of weaners in Canterbury were not as good as expected. Farmers attributed this to poor pasture quality, low sunshine hours and higher parasite burdens. All regions had hinds in above-average condition heading into winter.

The fawning percentage increased in 2011/12 to 89 percent for mixed-age hinds and 86 percent for rising two-year hinds – a lift of 3 and 4 percentage points respectively. Farmers felt increased feeding levels and good fawning conditions contributed to this increase.

Carcass weights were also up slightly on 2010/11, despite cold conditions in Southland and the venison schedule falling after Christmas, which usually encourages farmers to quit stock.

REVENUE UP AGAIN

Net cash income increased 14 percent in 2011/12, to $119 per stock unit. This was driven by the average venison price increasing slightly, more kilograms of venison for sale and sales of surplus feed grown on farm and/or extra grazing.

Velvet price falls

The farms monitored have a focus on venison production with a small velveting herd.

Velvet production in 2011/12 was higher than 2010/11 due to an increase in production per stag, the number harvested and amount of re-growth cut.

The price per kilogram of velvet decreased 4 percent to $84 per kilogram.

Velvet income was $53 800 and made up 14 percent of net cash income. Farmers reduced the number of mixed-age stags in the velveting herd. Some farmers reduced numbers due to where they were at in their farming careers and others because of the good prices for cull stags.

Specialist velvet production

Industry commentators note that those who specialise in velvet have had much greater increases in velvet weights than the model survey farms show. The breed, care and timing of harvest mean that average prices would also be higher for specialist velvet herds than this model indicates.

Turning grass into income

Other farm income derived from selling surplus feed remains a feature of the monitored farms. Options such as selling hay or silage, dairy grazing or store stock finishing were all available to deer farmers. Other farm income increased to $46 800 for 2011/12.

Off-farm income

Off-farm income (which has traditionally been agricultural contracting or jobs in town), of $11 100, was not needed to help balance the budget for 2011/12. This income is now seen as an additional benefit rather than an economic necessity.

EXPENDITURE INCREASES

Total farm working expenditure in 2011/12 was up 17 percent, compared with 2010/11. Deer farmers remained cautious spenders but the third year of respectable venison returns meant more was spent on productive inputs.

Farmers are aware that farm working expenses, at $57.81 per deer stock unit or 49 percent of net cash income, need to be contained wherever possible.

Deer farmers spent more on labour, vehicles and repairs and maintenance for the 2011/12 year as they fully maintained their properties and managed feed.

Feed costs increased either due to the need to conserve and control surplus feed in Canterbury or the increased purchases of feed in Southland.

Total overhead expenses continued to trend upward

(22 percent rise compared with 2010/11), with increases in Accident Compensation Corporation levies, rates and insurance being the main contributors.

Debt servicing eases

The model had better current account balances in 2011/12 and an easing in interest rates. The model also paid off term loan principal during the year. The model shows total liabilities of $465 000at the close of the 2011/12 season. This is down from $504 000 at the beginning of the 2010/11 season, showing the reduction in debt over this period. Most farmers are on floating interest rates but were considering fixing for short to medium terms at rates in the 5 percent range.

FARM PROFIT BEFORE TAX STABLE

Farm profit before tax increased 8 percent, compared with 2010/11. With tax and drawings deducted, the farm surplus for reinvestment increased $17 100 to $96 800. This was spent on additional capital purchases and repaying principal.

Consequently, the model returned a farm cash surplus of $52 400, another good result following the $58 000 surplus in 2010/11.

BUDGET FINANCIAL PERFORMANCE OF THE SOUTH ISLAND DEER MODEL IN 2012/13

The cash operating surplus for the South Island deer model is projected to decrease 3 percent or $5100. This is due to net cash income being expected to decrease 3 percent.

The main drivers for the decrease in net cash income are an expected small reduction in venison returns of 20 cents per kilogram to $7.57 per kilogram and fewer predicted surplus feed sales during summer–autumn as the seasons return to average growth rates in 2012/13.

With stock in good condition and good feed covers and reserves, farmers are positive about achieving their stock performance expectations. The opening and closing numbers of deer are not expected to change, as no major expansion in the deer system is planned. However, the increase in fawning percentages in 2012/13 will mean more heads will be for sale. Farmers are also expecting the average carcass weight of rising one-year stags to increase by 0.5 kilograms to 56.0 kilograms per head.

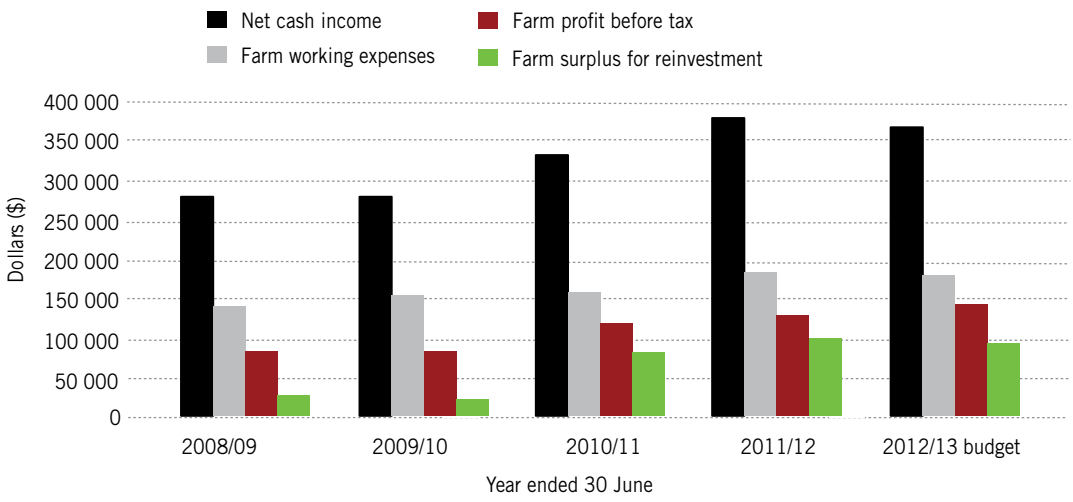
Velvet prices expected to hold

Farmers are expecting velvet prices to remain steady at $84.00 per kilogram. Per head production is expected to be up slightly. Many farmers sold a proportion of their velvet to road buyers and expect to continue this practice in 2012/13.

FARM WORKING EXPENDITURE BUDGETED TO DECREASE

Farm working expenditure in the South Island deer model is expected to decrease 3 percent (or $5400) in 2012/13.While this is only a marginal decrease, it signals farmers' intentions to curb increasing costs on their deer units. Areas where farmers are planning to reduce expenses are: animal health, feed, fuel and vehicle expenditure.

Figure 1: South Island deer model profitability trends



Industry commentators felt that the increasing emphasis by deer farmers on parasite control will mean animal health costs are unlikely to decrease in the coming season. As deer move into the National Animal Identification and Tracing scheme in July 2012 additional costs for tags will also be incurred.

Given the price of servicing vehicles, it was also seen as optimistic that vehicle costs will decrease. However, farmers monitored are budgeting for a 19 percent decrease.

Total feed costs should decrease 17 percent if a more typical growing season occurs in 2012/13, as less feed will need to be conserved or purchased.

Repairs and maintenance are expected to decrease 14 percent to $5.80 per deer stock unit but will still be above the long-term average ($4.50 per deer stock unit).

FARM PROFIT BEFORE TAX IMPROVES

If a tight rein on costs is achieved, the South Island deer model should show a farm profit before tax of $140 100 in 2012/13.

With tax and drawings removed, the farm surplus for reinvestment is expected to be $91 000, a 6 percent decrease on the 2011/12 result.

A number of the farmers monitored are planning to spend significantly more on capital purchases in 2012/13 (shown in the model as a 47 percent increase). These plans will depend on achieving the expected venison income. Farmers also intend to continue paying off principal on term loans.

Uncertainty remains over land price

Although more sales of farms occurred in 2011/12 than in 2010/11, it is still difficult to determine the market price for land. A price of $990 per stock unit was used in the model based on industry and valuer feedback.

Economic farm surplus over total farm assets gives a return on capital of 2.5 percent.

INFORMATION ABOUT THE MODEL

Deer farming in New Zealand is characterised by many deer farms that carry around 400 to 600 head of deer. However, a high proportion of the national herd is farmed on larger farms. These may be stand-alone deer farms or large deer units within a mixed farming operation.

The deer models in the Ministry for Primary Industries' pastoral monitoring are based on stand-alone deer farms and therefore represent an important but not totally representative deer farm type. However, monitoring and comparing the sector using a stand-alone deer model is important for tracking the deer sector's progress and trends.

The South Island deer model represents a family run, stand-alone deer farm in Southland, Otago and the Canterbury foothills. The model is based on running predominantly red hinds in a breeding herd, with hybrids used as terminal sires. There is also a small velveting herd. Progeny from the breeding hinds that are not required as replacements are sold for slaughter between 10 and 18 months of age, with final culling of replacements at 20 months of age.

The model is based on information surveyed from 20 deer farms and a cross-section of agribusiness representatives. The model's aim is to typify a deer farm in the southern South Island.

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