

SOUTH ISLAND DEER

This report contains the key results from MAF's 2010 deer monitoring programme. Please note that the sample of farms, model size and stocking rate has changed between 2008/09 and 2009/10. Caution should be taken when comparing data between these two years.

KEY POINTS

- Physical production in the 2009/10 season was just below the long term average. A cool spring and for some, a dry autumn, had negative flow-on effects on killing weights, finishing times and rising two-year hind reproductive performance.
- Net cash income per deer stock unit decreased 9 percent to \$92 per deer stock unit. This was due to a decrease in the average price per kilogram of venison sold.
- The average velvet price for the South Island deer model in 2009/10 was up 57 percent on 2008/09 to \$91 per kilogram. This increase was in line with the increase to \$100 per kilogram of the estimated national weighted average velvet price. Better velvet returns may stem from the reduced velvetting herd.
- Farm working expenses per deer stock unit were similar on a per deer stock basis to 2008/09 at \$50.37, driven by less expenditure per stock unit on feed and fertiliser, but increases in fuel, repairs and maintenance and animal health. Also adding to a change in expenditure would be the less intensive system the model now represents.
- Farm profit before tax decreased 9 percent on a per stock unit basis to \$27 in 2009/10.
- Deer farmer morale was positive as in-market prices for venison remained firm and velvet prices were above the five-year average. The biggest concern for farmers was the fluctuating and high New Zealand Dollar and its exchange rate against the Pound and Euro. The market outlook, on balance, is positive for venison.
- Reducing volumes of venison to export have kept in-market prices very strong against recessionary trends in restaurant dining.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE SOUTH ISLAND DEER MODEL

YEAR ENDED 30 JUNE	2006/07	2007/08	2008/09	2009/10 ¹	2010/11 BUDGET
Effective area (ha)	180	201	201	272	272
Opening deer stock units	2 752	2 848	2 748	3 015	3 148
Mixed age breeding hinds (head)	540	563	568	640	678
Rising 2-year hinds (head)	130	100	82	125	125
Rising 1-year hinds and stags (head)	564	538	514	653	649
Rising 2-year stags (head)	50	81	78	27	28
Rising 3-year plus stags (head)	104	119	109	62	62
Stocking rate (stock units/ha)	15.3	14.2	13.7	11.1	11.6
FAWNING²					
Farm average (%)	84	86	84	85	86
Mixed age hinds (%)	86	87	85	87	88
2-year-old hinds (%)	74	78	77	76	75
VELVET					
Average price (\$/kg)	95	75	58	91	86
Farm average (includes re-growth but excludes yearling velvet) (kg/stag)	3.4	3.7	3.4	2.9	2.9
Mixed age stags (kg/stag)	4.3	4.7	4.2	4.0	4.2
3-year-old stags (kg/stag)	3.6	3.9	3.6	3.0	2.9
2-year old stags (kg/stag)	2.3	2.7	2.3	1.8	2.0
VENISON PRICE AND CARCASS WEIGHTS					
Average price (\$/kg)	8.31	7.34	7.01
2-year-old stags (kg)	65	65	65	65	65
Yearling stags carcass weight (kg)	55.0	55.0	56.5	55.7	57.2
INCOME					
Net cash income (\$)	183 216	227 602	277 147	277 670	290 152
Farm working expenses (\$)	92 254	111 540	138 434	151 847	156 558
Farm profit before tax (\$)	51 088	50 855	81 335	81 268	77 553
Farm surplus for reinvestment ³ (\$)	10 952	25 600	24 746	21 533	36 901

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 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.

Symbol

... Not available.



»» TABLE 2: SOUTH ISLAND DEER MODEL BUDGET

	2009/10			2010/11 BUDGET		
	WHOLE FARM (\$)	PER HECTARE (\$)	PER DEER STOCK UNIT (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER DEER STOCK UNIT (\$)
REVENUE						
Deer sales	235 356	865	78.07	251 177	923	79.80
Velvet (per stag stock unit)	38 978	143	44.69	36 340	134	39.43
Other farm income	16 152	59	5.36	15 817	58	5.03
LESS:						
Deer purchases	12 816	47	4.25	13 182	48	4.19
Net cash income	277 670	1 021	92.11	290 152	1 067	92.18
Farm working expenses	151 847	558	50.37	156 558	576	49.74
Cash operating surplus	125 823	463	41.74	133 594	491	42.44
Interest	41 963	154	13.92	36 780	135	11.68
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	21 935	81	7.28	3 275	12	1.04
Minus depreciation	24 527	90	8.14	22 535	83	7.16
Farm profit before tax	81 268	299	26.96	77 553	285	24.64
Taxation	15 847	58	5.26	11 612	43	3.69
Farm profit after tax	65 421	241	21.70	65 941	242	20.95
ALLOCATION OF FUNDS						
Add back depreciation	24 527	90	8.14	22 535	83	7.16
Reverse stock value adjustment	-21 935	-81	-7.28	-3 275	-12	-1.04
Off-farm income	8 450	31	2.80	6 947	26	2.21
Discretionary cash	76 463	281	25.36	92 148	339	29.27
APPLIED TO:						
Net capital purchases	11 248	41	3.73	16 586	61	5.27
Development	10 944	40	3.63	1 025	4	0.33
Principal repayments	0	0	0.00	0	0	0.00
Drawings	46 480	171	15.42	48 300	178	15.34
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	0	0	0.00	0	0	0.00
Cash surplus/deficit	7 791	29	2.58	26 237	96	8.34
Farm surplus for reinvestment¹	21 533	79	7.14	36 901	136	11.72
ASSETS AND LIABILITIES						
Farm, forest and building (opening)	3 600 000	13 235	1 194	2 988 000	10 985	949
Plant and machinery (opening)	163 515	601	54	150 236	552	48
Stock valuation (opening)	507 164	1 865	168	529 099	1 945	168
Total farm assets (opening)	4 270 679	15 701	1 417	3 667 335	13 483	1 165
Total assets (opening)	4 270 679	15 701	1 417	3 667 335	13 483	1 165
Total liabilities (opening)	562 035	2 066	186	560 035	2 059	178
Total equity (farm assets - liabilities)	3 708 644	13 635	1 230	3 107 300	11 424	987

Note

¹ 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: SOUTH ISLAND DEER MODEL EXPENDITURE

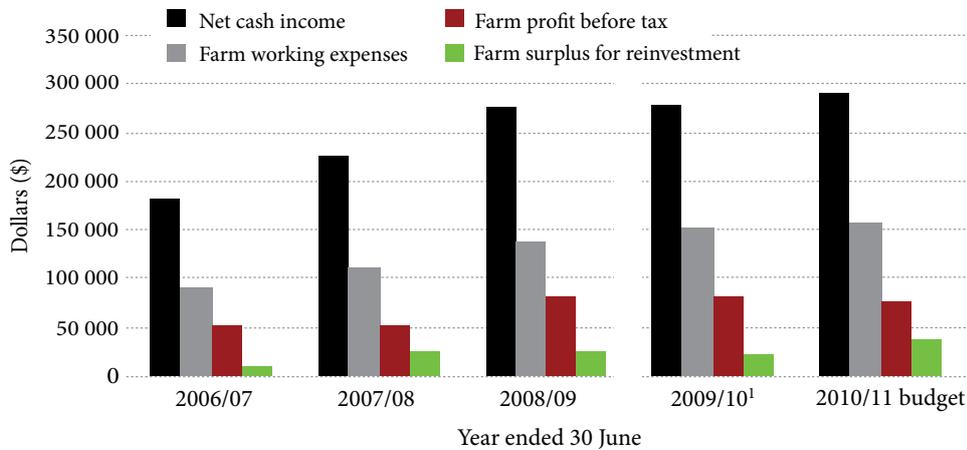
	2009/10			2010/11 BUDGET		
	WHOLE FARM (\$)	PER HECTARE (\$)	PER DEER STOCK UNIT (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER DEER STOCK UNIT (\$)
FARM WORKING EXPENSES						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	5 062	19	1.68	5 288	19	1.68
ACC	129	0	0.04	214	1	0.07
Total labour expenses	5 191	19	1.72	5 502	20	1.75
Animal health	11 938	44	3.96	9 726	36	3.09
Breeding	4 492	17	1.49	4 785	18	1.52
Electricity	5 028	18	1.67	5 128	19	1.63
Feed (hay and silage)	12 661	47	4.20	12 213	45	3.88
Feed (feed crops)	1 085	4	0.36	1 133	4	0.36
Feed (grazing)	724	3	0.24	787	3	0.25
Feed (other)	2 291	8	0.76	2 864	11	0.91
Fertiliser	26 951	99	8.94	31 288	115	9.94
Lime	1 929	7	0.64	3 714	14	1.18
Cash crop expenses	0	0	0.00	0	0	0.00
Freight (not elsewhere deducted)	1 417	5	0.47	1 574	6	0.50
Regrassing costs	6 361	23	2.11	7 177	26	2.28
Weed and pest control	3 768	14	1.25	3 462	13	1.10
Fuel	13 874	51	4.60	16 272	60	5.17
Vehicle costs (excluding fuel)	9 420	35	3.12	11 820	43	3.76
Repairs and maintenance	23 243	85	7.71	15 770	58	5.01
Total other working expenses	125 181	460	41.52	127 714	470	40.57
Communication costs (phone and mail)	1 823	7	0.60	1 896	7	0.60
Accountancy	3 333	12	1.11	3 221	12	1.02
Legal and consultancy	1 261	5	0.42	1 279	5	0.41
Other administration	2 370	9	0.79	2 169	8	0.69
Rates	4 570	17	1.52	4 836	18	1.54
Insurance	3 879	14	1.29	4 629	17	1.47
ACC employer	2 250	8	0.75	3 360	12	1.07
Other expenditure	1 990	7	0.66	1 952	7	0.62
Total overhead expenses	21 475	79	7.12	23 342	86	7.42
Total farm working expenses	151 847	558	50.37	156 558	576	49.74
CALCULATED RATIOS						
Economic farm surplus (EFS ¹)	5 654	21	1.88	40 110	147	12.74
Farm working expenses/NCI ²	55%			54%		
EFS/total farm assets	0.1%			1.1%		
EFS less interest and lease/equity	-1.0%			0.1%		
Interest+rent+lease/NCI	15%			13%		
EFS/NCI	2%			14%		
Wages of management	73 707	271	24.45	67 673	249	21.50

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.

»» FIGURE 1: SOUTH ISLAND DEER MODEL PROFITABILITY TRENDS



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.

FINANCIAL PERFORMANCE OF THE SOUTH ISLAND DEER FARM MODEL IN 2009/10

The 2009/10 cash operating surplus for the South Island deer model was \$125 800 (\$41.74 per stock unit). The decrease of 17 percent per stock unit on 2008/09 was driven by the lower venison price and slightly lower production.

POOR SPRING CONDITIONS AFFECT WHOLE SEASON

Many lower South Island deer farms went into the 2009 winter with low pasture covers but good quality pasture and adequate supplies of supplementary feed. Winter continued for longer than usual and spring when it arrived was cool. Consequently, little surplus grass was available for conserving supplements, killing weights were down and killing dates were either brought forward to avoid a drop in the seasonal late spring schedule or pushed later to get acceptable kill weights.

The cool spring also affected the establishment and growth of winter feed crops resulting in average to below average yields on southern farms. However, a flush of pasture growth in January and February 2010 enabled some supplements to be made.

REVENUE DOWN DUE TO LOWER AVERAGE VENISON PRICE

Net cash income per stock unit decreased 9 percent in 2009/10 to \$92 per deer stock unit. This was driven by a drop in the average venison price per kilogram from \$8.31 in 2008/09 to \$7.34 per kilogram in 2009/10. Lower average carcass weights and fewer animals for sale also affected the total net deer sales. Hind and stag numbers and the stocking rate increased during the year.

Other farm income is derived from selling feed in the form of grazing and/or grass mainly to the dairy industry. It is a small (6 percent) but significant contributor to farm revenue. Selling feed also has immediate cash flow benefits.

The velvet price increased 57 percent to an average \$91 per kilogram over all grades cut. Velvet income made up 14 percent of net cash income. At \$91 per kilogram for velvet, velveting stags are very profitable on “cents of profit per kilogram of dry matter eaten”.

VENISON WEIGHTS DOWN ON YEARLINGS

Average yearling stag carcass weights were down 0.8 kilograms to 55.7 kilograms in 2009/10. More hinds were retained so fewer were available for culling. The model stocking rate increased during 2009/10 from 11.1 to 11.6 stock units per hectare.

OFF-FARM INCOME HELPS BALANCE THE BOOKS

Many deer farms, due to their relatively small size, rely on off-farm income. Usually this is an agricultural related job such as contracting.

EXPENDITURE PER STOCK UNIT SIMILAR IN 2009/10

Farm working expenditure at \$50.37 per stock unit was similar to the 2008/09 year. However, there were changes in the make-up of expenditure. Less was spent on feed, particularly buying in other feed such as grain. More was spent on animal health and breeding, regrassing and repairs and maintenance. Farm working expenditure made up 55 percent of net cash income.

FERTILISER EXPENDITURE DOWN PER STOCK UNIT AND PER HECTARE

Deer farmers applied maintenance fertiliser to pasture, and winter feed crops received preferential fertiliser inputs. The model applies 7-14-5-18 units of N-P-K-S per hectare or 1.45 kilograms of P per stock unit. Nitrogen is mainly used on crops and young grass, although boosting pasture growth with strategic nitrogen at key times is also practiced. At this level of application, nitrogen fertiliser application would not cause any direct environmental damage. Fertiliser prices for all major products were well below the 2008/09 price spike.

MORE CATCH UP ON REPAIRS AND MAINTENANCE

The third year of reasonable venison prices allowed farmers to catch up on deferred maintenance with the model spending \$7.71 per stock unit.

DEBT SERVICING INTEREST ONLY

The general decreases in interest rates over the past 18 months have flowed through to the monitored farms with mortgages coming off high fixed terms move onto lower floating rates or are re-fixed at lower interest rates. The average interest rates paid in the model dropped during the year from 8.0 percent to 6.9 percent per annum. Debt servicing was \$13.90 per stock unit and accounted for 15 percent of net cash income. Monitored deer farmers did not repay any mortgage principal. The current account debt was reduced.

SMALL CASH SURPLUS FOR 2009/10

The cash surplus for 2009/10 is \$7800. This result includes \$8450 of off-farm income without which the model would have posted a small cash deficit. Above long-term average capital purchases, development, some terminal tax payments and retention of stock also occurred in this year, which contributed to the small deficit. Drawings for the model were a modest \$46 500.

BUDGET FINANCIAL PERFORMANCE OF THE SOUTH ISLAND DEER FARM MODEL IN 2010/11

The cash operating surplus is projected to increase in 2010/11, by \$7800 or 6 percent. Net cash income is expected to increase by \$12 500 or 4 percent. This increase could be smaller if the predicted average venison price of \$7.01 per kilogram is not achieved. Farm working expenditure is also predicted to increase 3 percent. This will be difficult to achieve with the introduction of an Emissions Trading Scheme (ETS) impacting on fuel and electricity prices as well as general inflation.

REVENUE INCREASES DUE TO INCREASED NUMBERS FOR SALE

Farmers anticipate more animals for sale in the 2010/11 season and as a result deer sales revenue on the South Island deer model is expected to increase 7 percent to \$251 200. This is due to slightly better per head performance (fawning percentage and carcass weights) but mainly due to more stock numbers available to kill. The 2009/10 model had 586 head for sale. The 2010/11 model expects 663 head for sale, a 13 percent increase in numbers. Revenue per deer stock unit is expected to be similar at \$92.

MEAT VALUE DOWN 5 PERCENT

The average venison price in the 2010/11 season is expected to be \$7.01 per kilogram of carcass weight, which is a 5 percent decrease on the previous season. In-market prices and demand for venison remain positive and stockpiles of frozen venison are low. The biggest unknown for farmers and marketers is the effect of the exchange rate of the New Zealand Dollar (NZD) with the Euro. Some European Union (EU) member states have problems with sovereign debt, which is expected to keep the NZD high against the Euro and reduce the returns at the farm gate. The reduced volume of venison for export is also a driver in maintaining good prices. For the year ended March 2010 the volume of venison exported was down by 20 percent to 14 200 tonnes and the value was back 31 percent to \$209 million.

WHERE TO FOR VELVET?

Farmers expect velvet income to decline 7 percent due to a drop in the average price per kilogram of velvet from \$91 to \$86 per kilogram. Total kilograms sold are expected to be down 1 percent compared with 2009/10. Farmers' price expectations are based on continued low volumes of velvet to sell, keeping prices higher than the 2007 to 2009 years.

Predicting velvet prices depends on the exchange rate, the economy of the major importing countries, the amount of product produced by competitor countries and the volumes produced in New Zealand.

A major positive for the whole velvet industry is the improving genetics that allow a similar weight of velvet to be cut from fewer velveted animals. There is also an incentive to harvest first cut velvet early and take advantage of the considerable volumes of quality high priced re-growth.

FARM WORKING EXPENDITURE BUDGETED TO INCREASE

Farm working expenditure on the South Island deer model is expected to increase 3 percent in 2010/11. This is a 1 percent decrease on a per stock unit basis (\$49.74 per stock unit) as more stock units are run in 2010/11. Industry commentators believe the full effects of ETS charges have not been factored into farmer cost expectations on any goods or services that require fuel, so maintaining or decreasing costs may prove difficult.

FEED EXPENSES SIMILAR

Total feed expenses are anticipated to remain similar at \$5.40 per stock unit. The majority of feed expenditure is for hay and silage making. A growth season would easily push these costs up if more silage was made to replenish supplementary feed reserves.

MORE FERTILISER AND LIME APPLIED

Fertiliser and lime expenditure is expected to increase by 21 percent, to \$11.12 per stock unit. This is a combination of applying more fertiliser and lime and anticipated fertiliser price increases. However, fertiliser, for the main products, is much less expensive in June 2010 than June 2009.

Increased lime is associated with larger areas going into new grass. Farmers realise that if they are growing a winter feed crop or sowing new grass, fertiliser and lime should not be skimmed on as the costs per kilogram of dry matter produced are higher with a poor yield.

REPAIRS AND MAINTENANCE SPENDING SLASHED

After spending above average amounts on repairs and maintenance in the 2009/10 season, farmers are expecting to trim expenditure in this area, which is one of the few spending items farmers have direct control over.

CAN NON-DISCRETIONARY SPENDING BE CAPPED?

Monitored farmers and industry commentators noted that the amount spent on non-discretionary items such as accounting, legal, rates, insurance and ACC continues to increase. Some categories such as rates are consistently going up by more than the annual inflation rate.

Despite cutting expenditure on some of these items, total overhead expenses are expected to increase 9 percent and represent 15 percent of farm working expenses in 2010/11.

GOOD NEWS ON INTEREST RATES

Debt servicing payments are predicted to decrease 12 percent to \$11.68 per stock unit and equate to 13 percent of net cash income. Many farmers expect interest rates to rise again in the 2011/12 year.

Farmers do not plan on repaying principal on term loans in 2010/11.

CASH SURPLUS TO INCREASE

The overall cash surplus on the South Island deer model is expected to increase to \$26 200 (\$6.18 per stock unit) in 2010/11, up from \$7800 in 2009/10. This is a combination of an increased cash operating surplus, less tax and interest and significantly less development expenditure. In contrast capital purchases are planned to increase.

LAND PRICES FALL?

The lack of bona fide sales makes valuing sheep, beef, dairy and deer farms difficult. Consensus amongst farmers, banks and real estate agents is that land prices have gone down, but no clear market signals exist. The value of the model farm land and buildings at 1 July 2010 is estimated at \$950 per stock unit, down 17 percent on the 1 July 2009 value.

Banks are more cautious with lending, requiring good cash flow, equity and personal factors before they will lend. The supply of money to lend is tight.

The farm model now has \$3.107 million of equity, a decline of \$601 300 from the beginning of the 2009/10 season.

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 MAF's Pastoral Monitoring are based on stand-alone deer farms and therefore represent an important but not totally representative deer farming type.

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 which 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 aim of the model is to typify a deer farm in the southern South Island.

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