SOUTH ISLAND DEER

KEY RESULTS FROM MAF'S 2011 DEER MONITORING PROGRAMME. Please note that several budget parameters have changed between 2009/10 and 2010/11. Caution should be taken when comparing this year's publication to previous years. Refer to the budget table footnotes for more detail.

KEY POINTS

- Physical production in the 2010/11 season was limited by a cold spring affecting stock, particularly lactation and growth rates. Despite this, fawning increased by 8 percentage points in the rising two-year hinds to 82 percent compared with 2009/10, which farmers attributed to better feeding of the these younger hinds.
- Net cash income per deer stock unit increased 14 percent to $105.00. This was due to the average price of venison increasing from $7.34 per kilogram in 2009/10 to $7.78 per kilogram in 2010/11. This was 19 percent higher than the five year average of $6.42 per kilogram. In 2011/12, the venison price is expected to increase further to average $8.23 per kilogram.
- Farm profit before tax in 2010/11 increased 45 percent or $10.46 per stock unit, aided by lower interest payments and increased net cash income.
- Weather patterns and pasture growth improved in the summer and autumn of 2011. This led to good stock condition and above average pasture covers and supplementary feed reserves going into the 2011 winter. This is expected to help maintain fawning and carcass weights for 2011/12.
- Deer farmer morale was positive as in-market prices compensated for the high value of the New Zealand Dollar against the UK Pound and Euro. Successive seasons of an above average and flatter venison schedule helped restore confidence and buoy expectations for 2011/12.

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

YEAR ENDED 30 JUNE	2007/08	2008/09	2009/10[1]	2010/11	2011/12 BUDGET
Effective area (ha)	201	201	272	272	272
Opening deer stock units (head)	2 848	2 748	3 015	3 148	3 152
Mixed age breeding hinds (head)	563	568	640	678	680
Rising 2-year hinds (head)	100	82	125	125	125
Rising 1-year hinds and stags (head)	538	514	653	649	649
Rising 2-year stags (head)	81	78	27	28	28
Rising 3-year plus stags (head)	119	109	62	98	98
Stocking rate (stock units/ha)	14.2	13.7	11.1	11.6	11.6
FAWNING[2]					
Farm average (%)	86	84	85	86	86
Mixed age hinds (%)	87	85	87	86	86
2-year-old hinds (%)	78	77	76	82	82
VELVET					
Average price ($/kg)	75.00	57.88	91.16	87.25	85.25
Farm average (includes re-growth but excludes yearling velvet) (kg/stag)	3.7	3.4	2.9	3.5	3.5
Mixed age stags (kg/stag)	4.7	4.2	4.0	3.8	3.8
3-year-old stags (kg/stag)	3.9	3.6	3.0	2.6	2.2
2-year old stags (kg/stag)	2.7	2.3	1.8	1.9	1.8
CARCASS WEIGHTS					
Average price ($/kg)	6.54	8.31	7.34	7.78	8.23
2-year-old stags (kg)	65.0	65.0	65.0	65.0	65.0
Yearling stags (kg)	55.0	56.5	55.7	54.0	54.0
INCOME					
Net cash income ($)	227 602	277 147	277 670	330 304	347 581
Farm working expenses ($)	111 540	138 434	151 847	155 756	164 373
Farm profit before tax ($)	50 855	81 335	81 268	117 786	130 047
Farm surplus for reinvestment[3] ($)	25 600	24 746	21 533	79 659	83 185

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

	2010/11			2011/12 BUDGET		
	WHOLE FARM ($)	PER HA ($)	PER DEER STOCK UNIT ($)	WHOLE FARM ($)	PER HA ($)	PER DEER STOCK UNIT ($)
REVENUE						
Deer sales	268 440	987	85.28	285 829	1 051	90.68
Velvet (per stag stock unit)	41 155	151	44.66	38 830	143	42.13
Other farm income	27 421	101	8.71	30 130	111	9.56
LESS:						
Deer purchases	6 712	25	2.13	7 208	27	2.29
Net cash income	**330 304**	**1 214**	**104.93**	**347 581**	**1 278**	**110.27**
Farm working expenses	**155 756**	**573**	**49.48**	**164 373**	**604**	**52.15**
Cash operating surplus	**174 548**	**642**	**55.45**	**183 208**	**674**	**58.12**
Interest	36 080	133	11.46	31 832	117	10.10
Rent and/or leases	0	0	0.00	0	0	0.00
Stock value adjustment	962	4	0.31	0	0	0.00
Minus depreciation	21 643	80	6.88	21 329	78	6.77
Farm profit before tax	**117 786**	**433**	**37.42**	**130 047**	**478**	**41.26**
Income equalisation	0	0	0.00	0	0	0.00
Taxation	13 481	50	4.28	20 911	77	6.63
Farm profit after tax	**104 305**	**383**	**33.14**	**109 137**	**401**	**34.62**
ALLOCATION OF FUNDS						
Add back depreciation	21 643	80	6.88	21 329	78	6.77
Reverse stock value adjustment	–962	–4	–0.31	0	0	0.00
Drawings	45 327	167	14.40	47 280	174	15.00
Farm surplus for reinvestment[1]	**79 659**	**293**	**25.31**	**83 185**	**306**	**26.39**
REINVESTMENT						
Net capital purchases	19 547	72	6.21	16 193	60	5.14
Development	2 164	8	0.69	1 450	5	0.46
Principal repayments	0	0	0.00	4 694	17	1.49
Farm cash surplus/deficit	**57 948**	**213**	**18.41**	**60 848**	**224**	**19.30**
OTHER CASH SOURCES						
Introduced funds	0	0	0.00	0	0	0.00
New borrowings	0	0	0.00	0	0	0.00
Off-farm income	15 379	57	4.89	15 379	57	4.88
Net cash position	**73 327**	**270**	**23.30**	**76 227**	**280**	**24.18**
ASSETS AND LIABILITIES						
Farm, forest and building (opening)	2 988 000	10 985	949	3 061 088	11 254	971
Plant and machinery (opening)	144 286	530	46	142 191	523	45
Stock valuation (opening)	629 735	2 315	200	630 697	2 319	200
Other produce on hand (opening)	0	0	0.00	0	0	0.00
Total farm assets (opening)	**3 762 021**	**13 831**	**1 195**	**3 833 976**	**14 095**	**1 216**
Total assets (opening)	**3 762 021**	**13 831**	**1 195**	**3 833 976**	**14 095**	**1 216**
Total liabilities (opening)	504 035	1 853	160	482 035	1 772	153
Total equity (farm assets - liabilities)	**3 257 987**	**11 978**	**1 035**	**3 351 941**	**12 323**	**1 063**

Note
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.

Please note that several budget parameters have changed between 2009/10 and 2010/11. These changes have been made to better reflect the financial position of the farm. New and adjusted definitions include farm surplus for reinvestment, farm cash surplus/deficit and net cash position. Caution should be taken when comparing this year's data to previous years.

TABLE 3: SOUTH ISLAND DEER MODEL EXPENDITURE

	2010/11			2011/12 BUDGET		
	WHOLE FARM ($)	PER HA ($)	PER DEER STOCK UNIT ($)	WHOLE FARM ($)	PER HA ($)	PER DEER STOCK UNIT ($)
FARM WORKING EXPENSES						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	5 100	19	1.62	5 300	19	1.68
ACC	179	1	0.06	179	1	0.06
Total labour expenses	**5 279**	**19**	**1.68**	**5 479**	**20**	**1.74**
Animal health	11 835	44	3.76	10 875	40	3.45
Breeding	3 620	13	1.15	2 459	9	0.78
Electricity	4 994	18	1.59	5 426	20	1.72
Feed (hay and silage)	15 203	56	4.83	16 139	59	5.12
Feed (feed crops)	2 896	11	0.92	1 765	6	0.56
Feed (grazing)	755	3	0.24	630	2	0.20
Feed (other)	3 872	14	1.23	4 318	16	1.37
Fertiliser	31 540	116	10.02	32 498	119	10.31
Lime	1 133	4	0.36	946	3	0.30
Cash crop expenses	0	0	0.00	0	0	0.00
Freight (not elsewhere deducted)	3 431	13	1.09	3 341	12	1.06
Regrassing costs	4 690	17	1.49	5 800	21	1.84
Shearing expense	0	0	0.00	0	0	0.00
Weed and pest control	4 564	17	1.45	4 413	16	1.40
Fuel	13 755	51	4.37	16 233	60	5.15
Vehicle costs (excluding fuel)	8 467	31	2.69	9 595	35	3.04
Repairs and maintenance	15 769	58	5.01	18 850	69	5.98
Total other working expenses	**126 526**	**465**	**40.20**	**133 288**	**490**	**42.29**
Communication costs (phone and mail)	1 685	6	0.54	1 853	7	0.59
Accountancy	3 162	12	1.00	2 940	11	0.93
Legal and consultancy	610	2	0.19	562	2	0.18
Other administration	2 161	8	0.69	1 863	7	0.59
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	5 164	19	1.64	5 577	21	1.77
Insurance	4 422	16	1.40	5 439	20	1.73
ACC employer	4 323	16	1.37	5 044	19	1.60
Other expenditure	2 424	9	0.77	2 329	9	0.74
Total overhead expenses	**23 951**	**88**	**7.61**	**25 607**	**94**	**8.12**
Total farm working expenses	**155 756**	**573**	**49.48**	**164 373**	**604**	**52.15**
CALCULATED RATIOS						
Economic farm surplus (EFS[1])	83 322	306	26.47	92 540	340	29.36
Farm working expenses/NCI[2]	47%			47%		
EFS/total farm assets	2.2%			2.4%		
EFS less interest and lease/equity	1.5%			1.8%		
Interest+rent+lease/NCI	10.9%			9.2%		
EFS/NCI	25.2%			26.6%		
Wages of management	68 620	252	21.80	69 340	255	22.00

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 FARM MODEL IN 2010/11

The 2010/11 cash operating surplus for the South Island deer model was $174 500 ($55.45 per stock unit). This is a 39 percent increase on the 2009/10 cash operating surplus and was driven by higher average venison prices.

POOR SPRING CONDITIONS AFFECT FINISHING TIMES

Lower South Island deer farms went into winter 2010 with slightly below average pasture covers but with good quality feed. Stock were in good condition and farms had adequate supplementary feed on hand. Spring was cold and lower pasture growth affected deer finishing weights and extended the finishing times of young stock. Although mixed-age hind fawning was similar to the previous season at 86 percent, there was a significant range (42 percent to 97 percent) on monitored farms. Farmers attributed attention to feeding as the reason for the 8 percentage point increase in the rising two-year hind fawning.

REVENUE UP DUE TO INCREASED VENISON PRICE

Net cash income increased 14 percent in 2009/10 to $105 per stock unit. This was driven by the average venison price increasing from $7.34 per kilogram in 2009/10 to $7.78 per kilogram in 2010/11. This is 21 percent above the national five–year average of $6.42 per kilogram. Carcass weights were reduced by poor spring pasture growth rates. The average weight for rising one–year stags was approximately 54.0 kilograms per head. As the season progressed, the steady venison schedule and better autumn pasture growth led to better weaner prices. The store market was strong with prices for weaners ranging from $4.60 to $6.00 per kilogram of liveweight.

Other farm income derived from selling surplus feed remains a feature of the monitored farms. The cold spring limited opportunities to produce and sell feed at the traditional time, but there were opportunities to sell surplus feed in the late summer and autumn. Other farm income options such as selling silage or hay are becoming a competitive alternative to dairy grazing for deer farmers with surplus grass to sell. Other farm income from selling grass, hay, silage or grazing was an important income source for the monitored farms and increased 70 percent to $27 400, or 8 percent of net cash income.

VELVET PRICE FALLS SLIGHTLY

Velvet production volumes were similar to the previous year but the average price was down 4 percent on 2009/10 to $87 per kilogram. Velvet income was $41 000 and made up 12 percent of net cash income; a small but significant income source. Economic analysis of various livestock systems by farm consultants in 2011 showed that velveting stags continued to show good profitability on a profit per cents of dry matter consumed basis. However, farmers indicated that any increase in stag numbers in the velveting herd needs to fit in with wider farm policies and labour requirements in particular. Specialist velvet producers noted the ongoing benefits of genetic advances in increasing per head velvet weights and grades.

OFF–FARM INCOME NO LONGER CRUCIAL

The monitored deer farms derive some off–farm income, which in the past was crucial for balancing the financial needs of the family. However, with improving venison prices family deer units have become profitable in their own right with off–farm income seen more as supplementary income. Many deer units are run as part of larger farms and the deer unit provides diversification and complementary income options.

EXPENDITURE INCREASED SLIGHTLY

Total farm working expenditure was up 3 percent but decreased slightly on a per stock unit basis to $49.50. In 2010/11, farm working expenses made up 47 percent of net cash income, compared with 55 percent in 2009/10. Deer farmers were generally cautious spenders and spent less on breeding, lime, regrassing. Spending on repairs and maintenance at $16 000 was 32 percent lower than in the 2009/10 year.

Despite South Island deer farmers' prudent approach to spending, price increases in feed, freight, rates and insurance occurred. Increased fertiliser expenditure was a reflection of slightly increased fertiliser volumes applied and slightly increased spreading costs. Good cash flows and increasing business confidence led farmers to apply increased volumes of fertiliser. However, fertiliser was applied later than typical due to climatic conditions. Fertiliser prices fluctuated over the year but were not significantly different per tonne from 2009/10. The model applied 15 kilograms of phosphate per hectare, which is approximately the maintenance level for the model's stocking rate.

Increased overhead expenditure on insurance (up 14 percent to $4400) and rates (up 13 percent to $5100) were especially noticed by the monitored farmers.

DEBT SERVICING EASIER

The model had less current account interest to pay as it began the year with an improved overdraft and better net cash income compared with the previous year. Interest rates on term debt softened to 6.5 percent per annum on average. No principal repayments were made.

FARM PROFIT BEFORE TAX IMPROVES

Farm profit before tax increased 45 percent compared with 2009/10. After tax was paid, combined spending on drawings, capital purchases, development and principal repayments were similar to the previous season. As a result the model returned a farm cash surplus of $57 900, the best result for several years.

With a good surplus, farmers may re-consider some of their decisions to limit spending and look to reinvest in their farms or pay off more debt. Farmers and their advisors will be looking at future tax liabilities and planning how to manage them.

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

The cash operating surplus is projected to increase by 5 percent or $8700. This is due to net cash income being expected to increase by $17 300 while farm working expenses are expected to increase by only $8600. The main driver for the increased net cash income is an average venison price of $8.23 per kilogram, a 6 percent increase on the previous year. Despite increased tax payments from increased revenue in the previous year, farm profit after tax is expected to be 5 percent better in 2011/12 at $109 000.

VENISON PRICE BUDGETED TO INCREASE

Deer farmers see venison as a well-positioned product in the growing global protein market. They do accept that there will likely be a ceiling on in-market venison prices relative to other high-end protein alternatives. The model's expected average venison price of $8.23 per kilogram will be the second highest average venison price received in the last ten years.

With good feed and stock conditions going into the 2011 winter, farmers were positive about achieving their stock performance expectations. The total number of deer and the number of deer for sale are budgeted to be similar between 2010/11 and 2011/12, as no major expansion or change in the deer system is planned. Spring 2011/12 contracts, announced in autumn 2011, also led farmers to believe venison prices in 2011/12 will be strong.

VELVET PRICE LIKELY TO HOLD

Farmers expect velvet income to be less than in 2010/11. However, in the key market economies of China and Korea, supply and demand are reportedly well balanced. The 2011/12 model shows a 2 percent price decrease compared with 2010/11 to $85.00 per kilogram. Farmers lower price expectations are based on the continuing low volumes of velvet produced and no other in-market shocks. The high exchange rate of the New Zealand Dollar is also expected to adversely affect farm gate returns.

FARM WORKING EXPENDITURE BUDGETED TO INCREASE

Farm working expenditure on the South Island deer model is expected to increase 6 percent in 2011/12. This equates to an estimated $2.67 per stock unit expenditure increase. Industry commentators believe it will be difficult to restrict spending due to increases in fuel prices and fuel-related expenses such as freight, cartage, spreading and contracting. Given the previous two years of surpluses, the opportunity to reinvest in farm businesses will likely be difficult to resist. Farmers are still budgeting for less development and capital purchases expenditure in 2011/12 compared with the previous two years.

FERTILISER REMAINS THE BIGGEST SINGLE EXPENSE

Fertiliser expenditure is expected to increase by 3 percent to $10.31 per stock unit. No major increases in tonnage or price per tonne were anticipated by farmers. Monitored farms intend to apply N-P-K-S in the ratio of 6-16-2-21 kilograms per hectare respectively.

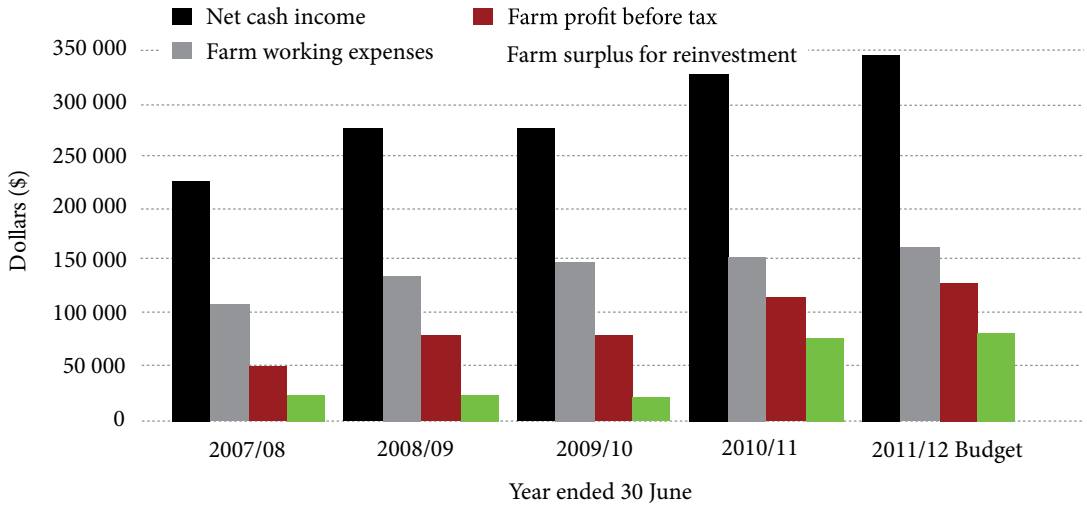
Repairs and maintenance expenses are expected to increase 20 percent compared with 2010/11 to $18 900, as farmers take advantage of good cash flows to catch up on any deferred maintenance. However farmers reported they do not plan to return to 2009/10 expenditure levels of approximately $23 200.

INSURANCE PREMIUMS INCREASE

Total overheads are budgeted to increase in 2011/12. Insurance premiums are expected to increase due to recent domestic and global adverse events, boosting expenditure on this item by 23 percent to $5400.

Total debt servicing is expected to decrease for the third season in a row due to average interest rates reducing slightly and improved cash flows. The model intends to pay $4700 of principal off the term loan. Depending on expenditure on other items, this amount may increase.

FIGURE 1: SOUTH ISLAND DEER MODEL PROFITABILITY TRENDS



Notes

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.

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.

CASH SURPLUS EXPECTED TO BE SIMILAR

The farm surplus for reinvestment is predicted to be $83 200, 4 percent better than 2010/11. This is due to the increased net cash income covering increased farm working expenditure and tax payments.

SOME UNCERTAINTY OVER LAND PRICE

Like all farm types, there have been few deer farm sales over the past year. This lack of sales data makes it difficult to determine the market price for land. The general feeling of monitored farmers and industry commentators was that deer farms at 1 July 2011 were at a similar price (land and buildings around $11 000 per hectare) to 1 July 2010 but with a cautious expectation that values may increase. Even at these land prices equity would improve 3 percent to $3.352 million due to cash surpluses reducing current account debt.

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

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