2009 PASTORAL MONITORING

NORTH ISLAND DEER

KEY POINTS

- Venison prices per kilogram were two-thirds above their 10 year average and well above the "boom" prices of 2001. These high prices were driven by tight supply and continued demand.
- Strong venison prices and increased deer sales contributed to the model's net cash income increasing 43 percent from $155 000 to $221 400 in 2008/09. This improvement came despite a drought affected season that meant both fawning percentages and carcass weights were down on 2007/08.
- Repeated drought events on the east coast of the North Island contributed to a 24 percent increase in total farm working expenses in 2008/09 to $128 300.
- The average velvet price in 2008/09 was down 27 percent to a net price of $55 per kilogram. Industry sources attributed the disappointing result to poor velvet marketing structures and a lack of confidence in New Zealand velvet's main markets, Korea and China, due to the global financial slowdown.
- Velvet stag numbers in the North Island deer model declined by almost 16 percent during 2008/09 as a result of farmers downsizing their velveting herds due to the recent poor and unstable velvet prices.
- The model's cash surplus of $49 000 in 2008/09 is a significant improvement on the 2007/08 surplus of $4700.
- Deer farmers are optimistic and expect 10 to 20 cents per kilogram improvement in venison prices and at least a $20 per kilogram improvement for velvet in 2009/10.

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

YEAR ENDED 30 JUNE	2005/06	2006/07	2007/08[R]	2008/09	2009/10 BUDGET
Effective area (ha)	140	140	140	140	140
Opening deer stock units	2 197	2 197	2 197	2 198	2 054
Mixed age breeding hinds (head)	440	440	440	440	420
Rising 2-year hinds (head)	100	100	100	110	110
Rising 1-year hinds and stags (head)	454	454	454	486	440
Rising 2-year stags (head)	25	25	25	25	25
Rising 3-year plus stags (head)	80	80	80	57	48
Stocking rate (stock units/ha)	15.7	15.7	15.7	15.7	14.7
FAWNING[1]					
Farm average (%)	86	86	85	80	84
Mixed age hinds (%)	88	88	88	85	88
2-year-old hinds (%)	76	74	70	60	70
VELVET					
Average price ($/kg)	44	100	75	55	75
Farm average (includes re-growth but excludes yearling velvet) (kg/stag)	2.3	2.5	3.6	2.2	2.2
Mixed age stags (kg/stag)	4.2	4.5	4.7	4.5	4.8
3-year-old stags (kg/stag)	3.7	4.1	4.1	3.5	3.5
2-year old stags (kg/stag)	2.0	2.2	2.4	2.0	2.0
CARCASS WEIGHTS					
2-year-old stags (kg)	69	70	72	70	70
Yearling stags (kg)	55	56	57	54	55
INCOME					
Net cash income ($)	110 632	148 688	155 043	221 351	195 781
Farm working expenses ($)	86 661	98 322	103 828	128 333	118 085
Farm profit before tax ($)	233	23 390	23 523	41 006	78 671
Farm surplus for reinvestment[2] ($)	–53 622	–34 140	–14 748	31 922	3 153

Notes

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

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.

Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

TABLE 2: NORTH ISLAND DEER MODEL BUDGET

	2008/09			2009/10 BUDGET			CHANGE
	WHOLE FARM ($)	PER HECTARE ($)	PER DEER STOCK UNIT ($)	WHOLE FARM ($)	PER HECTARE ($)	PER DEER STOCK UNIT ($)	BETWEEN 2008/09 AND 2009/10 (%)
REVENUE							
Deer sales	208 312	1 488	94.77	172 499	1 232	84.00	–17
Velvet (per stag stock unit)	18 090	129	0.00	25 440	182	44.21	41
Other farm income	5 000	36	2.27	10 000	71	4.87	100
LESS:							
Deer purchases	10 050	72	4.57	12 158	87	5.92	21
Net cash income	**221 351**	**1 581**	**100.70**	**195 781**	**1 398**	**95.34**	**–12**
Farm working expenses	**128 333**	**917**	**58.38**	**118 085**	**843**	**57.50**	**-8**
Cash operating surplus	**93 018**	**664**	**42.32**	**77 696**	**555**	**37.84**	**–16**
Interest	17 483	125	7.95	14 586	104	7.10	–17
Rent and/or leases	0	0	0.00	0	0	0.00	..
Stock value adjustment	–28 620	–204	–13.02	21 034	150	10.24	–173
Minus depreciation	5 910	42	2.69	5 473	39	2.67	–7
Farm profit before tax	**41 006**	**293**	**18.66**	**78 671**	**562**	**38.31**	**92**
Taxation	5 414	39	2.46	19 847	142	9.67	267
Farm profit after tax	**35 592**	**254**	**16.19**	**58 824**	**420**	**28.65**	**65**
Add back depreciation	5 910	42	2.69	5 473	39	2.67	–7
Reverse stock value adjustment	28 620	204	13.02	–21 034	–150	–10.24	–173
Off-farm income	29 741	212	13.53	25 280	181	12.31	–15
Discretionary cash	**99 863**	**713**	**45.43**	**68 543**	**490**	**33.38**	**–31**
APPLIED TO							
Net capital purchases	3 000	21	1.36	0	0	0.00	–100
Development	2 500	18	1.14	2 500	18	1.22	0
Principal repayments	10 167	73	4.63	11 648	83	5.67	15
Drawings	38 200	273	17.38	40 110	287	19.53	5
New borrowings	3 000	21	1.36	0	0	0.00	–100
Introduced funds	0	0	0.00	0	0	0.00	..
Cash surplus/deficit	**48 996**	**350**	**22.29**	**14 285**	**102**	**6.96**	**–71**
Farm surplus for reinvestment[1]	**31 922**	**228**	**14.52**	**3 153**	**23**	**1.54**	**–90**
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	2 564 100	18 315	1166.51	2 307 690	16 484	1123.78	–10
Plant and machinery (opening)	39 398	281	17.92	36 488	261	17.77	–7
Stock valuation (opening)	318 426	2 274	144.86	444 154	3 173	216.29	39
Other farm related investments (opening)	0	0	0.00	0	0	0.00	..
Total farm assets (opening)	**2 921 924**	**20 871**	**1329.30**	**2 788 332**	**19 917**	**1357.84**	**–5**
Total liabilities (opening)	**218 532**	**1 561**	**99.42**	**208 365**	**1 488**	**101.47**	**–5**
Total equity (assets-liabilities)	**2 703 392**	**19 310**	**1229.88**	**2 579 967**	**18 428**	**1256.38**	**–5**

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.

Symbol
.. Not applicable.

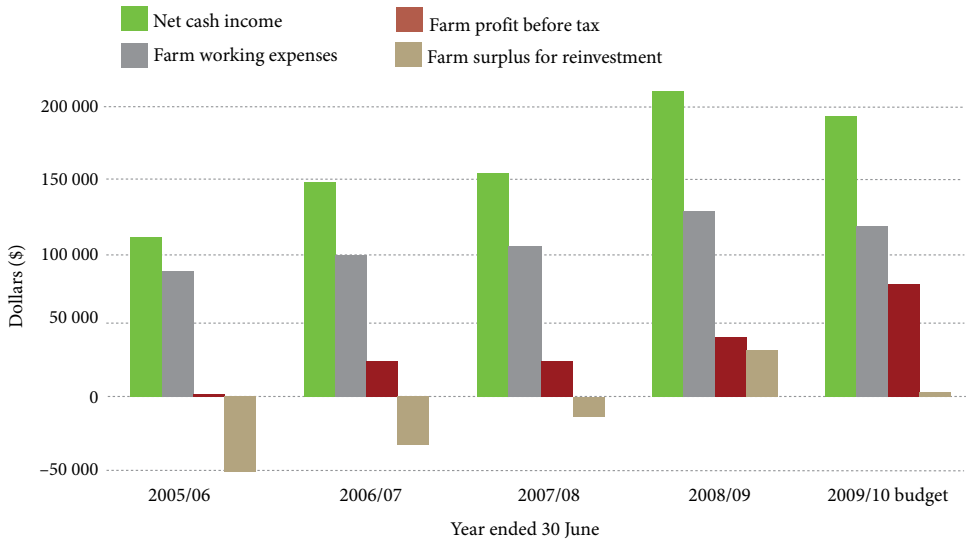
TABLE 3: NORTH ISLAND DEER MODEL EXPENDITURE

	2008/09			2009/10 BUDGET			CHANGE
	WHOLE FARM ($)	PER HECTARE ($)	PER DEER STOCK UNIT ($)	WHOLE FARM ($)	PER HECTARE ($)	PER DEER STOCK UNIT ($)	BETWEEN 2008/09 AND 2009/10 (%)
FARM WORKING EXPENSES							
Permanent wages	0	0	0.00	0	0	0.00	..
Casual wages	6 528	47	2.97	6 528	47	3.18	0
ACC	152	1	0.07	176	1	0.09	16
Total labour expenses	**6 680**	**48**	**3.04**	**6 704**	**48**	**3.26**	**0**
Animal health	6 840	49	3.11	6 453	46	3.14	–6
Breeding	900	6	0.41	1 008	7	0.49	12
Electricity	3 388	24	1.54	3 490	25	1.70	3
Feed (hay and silage)	13 468	96	6.13	10 774	77	5.25	–20
Feed (feed crops)	7 306	52	3.32	5 845	42	2.85	–20
Feed (grazing)	0	0	0.00	0	0	0.00	..
Feed (other)	6 125	44	2.79	4 900	35	2.39	–20
Fertiliser	29 609	211	13.47	24 054	172	11.71	–19
Lime	1 480	11	0.67	2 664	19	1.30	80
Freight (not elsewhere deducted)	1 300	9	0.59	1 300	9	0.63	0
Regrassing costs	4 800	34	2.18	5 100	36	2.48	6
Weed and pest control	2 640	19	1.20	2 376	17	1.16	–10
Fuel	10 200	73	4.64	9 690	69	4.72	–5
Vehicle costs (excluding fuel)	5 600	40	2.55	5 600	40	2.73	0
Repairs and maintenance	8 280	59	3.77	8 694	62	4.23	5
Total other working expenses	**101 936**	**728**	**46.37**	**91 948**	**657**	**44.78**	**–10**
Communication costs (phone and mail)	2 750	20	1.25	2 805	20	1.37	2
Accountancy	2 970	21	1.35	3 119	22	1.52	5
Legal and consultancy	1 485	11	0.68	1 515	11	0.74	2
Other administration	0	0	0.00	0	0	0.00	..
Rates	6 174	44	2.81	6 483	46	3.16	5
Insurance	3 519	25	1.60	3 589	26	1.75	2
Water charges (irrigation)	0	0	0.00	0	0	0.00	..
Other expenditure[1]	2 819	20	1.28	1 923	14	0.94	–32
Total overhead expenses	**19 717**	**141**	**8.97**	**19 433**	**139**	**9.46**	**–1**
Total farm working expenses	**128 333**	**917**	**58.38**	**118 085**	**843**	**57.50**	**–8**
Wages of management	60 219	430	27.40	58 883	421	28.67	–2
Depreciation	5 910	42	2.69	5 473	39	2.67	–7
Total farm operating expenses	**194 462**	**1 389**	**88.47**	**182 442**	**1 303**	**83.00**	**–6**
CALCULATED RATIOS							
Economic farm surplus (EFS[2])	–1 731	–12	–0.79	34 373	246	16.74	
Farm working expenses/NCI[3]	72%			60%			
EFS/total farm assets	19%			1%			
EFS less interest and lease/equity	0%			1%			
Interest+rent+lease/NCI	0%			7%			
EFS/NCI	–21%			18%			

Notes
1 Includes the Accident Compensation Corporation (ACC) employer levy.
2 EFS (or earnings before interest and tax) 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.
3 Net cash income.

Symbol
.. Not applicable.

FIGURE 1: NORTH ISLAND DEER MODEL PROFITABILITY TRENDS



FINANCIAL PERFORMANCE OF THE NORTH ISLAND DEER MODEL FARM IN 2008/09

The North Island deer model's cash operating surplus was up 82 percent from 2007/08 to $93 000 ($42 per stock unit) in 2008/09. Although this is a good result, the 24 percent increase in the model's total farm working expenses eroded a potentially larger cash operating surplus.

DROUGHT AFFECTS FAWNING PERCENTAGES AND CARCASS WEIGHTS

Farmers affected by drought noted a loss of condition in their deer, which lowered fawning percentages, particularly with first calving hinds. R2 hind fawning percentages for the 2008/09 North Island deer model were down 14 percent on 2007/08. Poor stock condition linked to the droughts also resulted in delayed killing times and carcass weights lighter by 1 to 3 kilograms. However, despite these production losses, a higher venison schedule, which remained high for longer than usual, meant most deer farmers still achieved good returns.

VENISON FARMERS ALL SMILES

A 43 percent increase in revenue from deer sales contributed to a similar lift in the model's net cash income. This boost of revenue was a result of both high venison prices and increased numbers of stock sold, as drought-affected farmers de-stocked taking advantage of high prices.

The venison schedule rose above its 10-year average, peaking at around $8.30 per kilogram in the North Island. Post-Christmas prices, which typically drop significantly, also remained high at around $7.20 per kilogram.

Deer breeders achieved sales for mixed-sex weaners up around the $5.00 to $6.00 per kilogram liveweight range in 2008/09. This was $1.00 to $1.50 per kilogram up on 2007/08 and resulted from the limited availability of weaners due to the culling of capital stock over the last few years.

VELVET PRICES REMAIN UNPREDICTABLE

Small velvet operators are becoming disenchanted with velvet due to unpredictable prices, both between velvet classes and from year to year. The North Island deer model's average net price for velvet in 2008/09 was $55 per kilogram, compared with $75 per kilogram in 2007/08. This was below the predicted national weighted average velvet price of $61.50 per kilogram. The poorer outcome for the North Island deer model's velvet prices is likely due to the small scale of the model's velveting business, and because many monitored farms were experiencing drought conditions during 2008, which impacted on velvet weights. The North Island deer model's velvet farm average dropped from 3.6 kilogram per stag in 2007/08 to 2.2 per kilogram per stag in 2008/09.

Industry sources attributed the disappointing velvet returns to poor marketing structures and lack of confidence in New Zealand's main velvet markets in Asia. This is due to the global economic crisis.

Velvet sales contributed 9 percent of the North Island deer model's revenue for 2008/09 compared with 17 percent in 2007/08. At current prices farmers note that there is no incentive to boost velvet production. This is reflected in lower per head velvet weights, less re-growth being harvested and a drop in velveting stag numbers on the farms monitored.

CONSECUTIVE DROUGHTS INCREASE ON-FARM EXPENDITURE

Total farm working expenses rose by 24 percent to $128 300 in 2008/09. This was driven by increased spending on feed, animal health, weed and pest, and regrassing. These expenses are symptomatic of farming through drought, with lighter animals requiring more animal health products (drench etc) and additional weed and pest management due to less pasture cover. Another result of the dry weather conditions was the need to buy in more feed. Feed expenses increased 75 percent to $26 900 for the 2008/09 North Island deer model. This increase was both a result of high demand, driven from multiple regions in New Zealand affected by drought and pressure from the dairy boom. Increases in fuel costs and road user charges also contributed to the total feed bill rise.

Regrassing expenses have increased significantly, both as a result of unit cost increases and more area planted in fodder crops as a response to the drought, now needing to be regrassed.

Fertiliser expenses rose 27 percent (to $13.47 per stock unit) from 2007/08, due to price increases rather than increases in fertiliser use. Higher fuel costs in recent years and a lower New Zealand dollar pushing up import prices increased fertiliser costs. Fertiliser volumes applied by farmers were similar to or less than the previous year. Deer farmers also note some interest in alternative fertiliser/plant health type products, such as HuMates (the active ingredients are bacteria and fungi which the product producers claim improves soil pH to support fertiliser use and allow more effective nutrient uptake by plants).

Total farm working expenses in 2008/09 at $128 300 ($58 per stock unit) represents 58 percent of the North Island deer model's $221 400 net cash income.

NET RESULT PROVIDES DEER FARMERS WITH CASH IN THEIR POCKETS

Farm profit before tax is $41 000 ($19 per stock unit). This is up 74 percent compared with the 2007/08 North Island deer model and is part of an upward trend, with each year over the the last five years all showing improvements with farm profit before tax and an increasingly more profitable deer sector.

BUDGET FINANCIAL PERFORMANCE OF THE NORTH ISLAND DEER MODEL IN 2009/10

The cash operating surplus in 2009/10 is expected to be $77 700. This is down on the previous year's $93 000 but up 52 percent on the 2006/07 year. The decline from the 2008/09 year results from the North Island deer model rebuilding its venison herd, rather than any decline in prices received. The 2009/10 cash surplus is also expected to be reduced by a higher tax bill due to the previous year's improved result.

FARMERS EXPECTED TO REBUILD VENISON HERDS

In response to the expectation of higher prices, the North Island deer model expects to retain weaners and begin rebuilding hind numbers in the 2009/10 season, to increase future venison production. This has impacted the 2009/10 model's revenue. The 2009/10 model's net cash income is expected to be down 12 percent compared with 2008/09 to $195 800 ($95.34 per stock unit).

Fawning percentages in the 2009/10 season are expected to improve to match pre-drought 2007/08 percentages. Yearling stag carcass weights are also expected to improve slightly (by 1 to 1.5 kilograms) as drought-affected farmers recover both condition scores and pasture covers.

Deer kill numbers are expected to slow in 2009/10 as herds are rebuilt. The industry has already noted a 45 percent decrease in the hind kill from April 2008 to April 2009 compared with the previous year to April. Total kill for 2009/10 is anticipated to be approximately 360 000 deer, which is 170 000 less than 2008/09. The kill pattern is also expected to be one month late as farmers hold off killing to try and gain extra weight with another good sustained schedule anticipated in 2009/10.

LOWER SUPPLIES ARE EXPECTED TO KEEP VENISON PRICES HIGH

The North Island deer model has dropped its stocking rate from 15.7 stock units per hectare to 14.7 stock units per hectare in 2009/10 to reflect the continued culling over the last few years. This has resulted in lower venison supply which is expected to help keep prices firm in 2009/10. In addition, success from the deer industries overseas marketing strategies are helping to extend the consumption period of venison which is contributing to on farm revenue as farmers have time to maximise liveweight gains selling both pre and post Christmas and still receive good prices. The 2009/10 North Island deer model expects a further price increase of 10–20 cents per kilogram for venison.

VELVET FUTURE UNCERTAIN

Fewer velvet producers and reduced stag numbers are expected to result in an undersupply of velvet boosting the velvet price in 2009/10 to an average of approximately $75 or more per kilogram. This is $20 per kilogram more than the 2008/09 price in the North Island deer model. No difference in price is expected between velvet classes in the model, reflecting farmers' lack of confidence in velvet grading and pricing.

The future for velvet remains uncertain. If variability and inconsistent velvet pricing is not rectified, it is likely the family farm will move further away from velvet, leaving it to the larger specialised producers. Farmers report they need $100 to $120 per kilogram from velvet to make it worthwhile. Some progress is being made in consolidating the New Zealand velvet industry with a proposed joint venture between

Tasman Velvet Processors Ltd and PGG Wrightson Ltd to form the NZ Velvet Marketing Company Ltd (NZVM) for the purposes of marketing New Zealand velvet overseas. Farmers hope this signals a long awaited unity in the velvet industry, which has the potential to lead to better marketing disciplines and controls.

The North Island deer model shows a slight increase in velvet weight for the mixed aged stags as the season's weather patterns are expected to return to normal and past culling strategies improve average weights gained.

FARM EXPENSES EXPECTED TO EASE

Total farm working expenses are expected to drop 8 percent in the 2009/10 year to $118 000. This is a reflection of fewer animal health expenses (down 6 percent to $6500); feed costs (down 20 percent to $21 500); weed and pest expenditure (down 10 percent to $2400) associated with a non-drought year; and cheaper fuel (down 5 percent to $9700).

Cheaper oil prices have helped lower fertiliser prices. Farmers are expected to continue with the same tonnage but actual price per tonne is expected to be down 19 percent. Repairs and maintenance (up 5 percent to $8700) reflects work deferred from previous years is now expected to be completed given improving returns.

Total expected farm working expenses for 2009/10 at $118 100 ($57.50 per stock unit) represent 60 percent of the North Island deer model's $195 800 net cash income.

TAX LIABILITIES AND STOCK PURCHASES EXPECTED TO IMPACT CASH SURPLUSES IN 2009/10

The 2009/10 North Island deer model's farm profit before tax is expected to increase by 92 percent to $78 700 ($38 per stock unit) compared with $41 000 in 2008/09. This is a result of a drop in farm expenditure, increases in velvet income and revenue from other livestock used for pasture management and an increase in the value of the herd.

The North Island deer model is expected to have a cash surplus of $14 300 ($6.96 per stock unit) in 2009/10. Compared with 2008/09 this is a poorer result, and reflects both lower opening stock numbers meaning fewer progeny, and therefore less revenue from sales, as well as increased costs associated with deer purchases, as capital stock numbers are rebuilt. The model's cash surplus is also expected to be reduced by a significant increase in tax liabilities at $9.67 per stock unit for 2009/10 compared with only $2.46 per stock unit in 2008/09.

INFORMATION ABOUT THE MODEL

The North Island deer model farm is a small stand-alone deer farm that is big enough to support a family, does not run sheep and beef cattle but includes on-farm income from grazing as part of the farm's pasture management. In response to the majority of North Island deer farms running mixed stock types for pasture management purposes, the 2008/09 North Island deer model now includes on-farm grazing income. Caution should be taken when comparing years prior to 2009. The model farm is theoretically situated in the central North Island/East Coast/Hawkes Bay region.

Weaner hinds and stags are carried over the winter and sold to slaughter. Half of the breeding hinds are mated to a cross-bred stag. The farming programme aims to get yearling stock to target slaughter weights in late spring when market prices for chilled venison traditionally peak. Each year, 25 yearling stags are retained as replacements to enter the velveting herd of 80 mixed aged stags.

The North Island deer model is created from information drawn from 20 deer farms and a wide cross-section of agribusiness representatives. The aim of the North Island deer model is to typify an average stand alone deer farm for the North Island. Budget figures are averaged from the contributing properties and adjusted to represent a real deer farm. Income figures include off-farm income, new borrowing and other cash income.

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