

2009 PASTORAL MONITORING



WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF

THIS REPORT CONTAINS THE KEY RESULTS FROM THE MINISTRY OF AGRICULTURE AND FORESTRY'S 2009 PASTORAL MONITORING PROGRAMME.

KEY POINTS

- › The 2007/08 drought which flowed into a very wet winter resulted in lambing percentages reducing significantly from 126 percent in 2007/08 to 111 percent in 2008/09.
- › Net cash income in 2008/09 increased 4 percent to \$285 400 as a result of improved cattle and lamb prices.
- › Breeding ewes on hand at opening in the farm model were 8 percent down on 2007/08 to 933 ewes. De-stocking occurred as a result of the low pasture cover coming out of the 2007/08 drought and the wet 2008 winter, combined with poor prices.
- › Farm profitability improved in 2008/09, but is budgeted to drop back in 2009/10 to 2007/08 levels.
- › Farmers have responded to lower farm profitability and higher fertiliser prices by applying sub-maintenance levels of fertiliser for three consecutive years; 2007/08, 2008/09 and 2009/10. This threatens the sustainability of the farm system in the longer-term.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL

YEAR ENDED 30 JUNE	2005/06	2006/07	2007/08 ^R	2008/09	2009/10 BUDGET
Effective area (ha)	300	300	300	300	300
Breeding ewes (head)	1 230	1014	1014	933	917
Replacement ewe hoggets (head)	400	336	336	309	287
Other sheep (head)	52	123	123	114	75
Rising 1-year cattle (head)	205	186	186	177	181
Other cattle (head)	158	108	108	103	105
Opening sheep stock units (ssu)	1 545	1 584	1 584	1 458	1 390
Opening cattle stock units	1 975	1 696	1 672	1 606	1 634
Opening total stock units (su)	3 520	3 280	3 256	3 064	3 024
Stocking rate (stock unit/ha)	11.7	10.9	10.9	10.2	10.1
Ewe lambing (%)	129	132	126	111	121
Average lamb price (\$/head)	58.47	56.37	56.51	81.74	78.00
Average wool price (\$/kg)	2.35	2.32	2.24	2.23	1.94
Total wool produced (kg)	5 701	7 424	6 869	4 032	7 968
Wool production (kg/ssu)	4.09	4.70	4.34	2.77	5.73
Average rising 3-year and older steer (\$/head)	954	900	966	1 044	904
Average rising 2-year bull (\$/head)	661	840	908	1 030	872
Net cash income (\$)	269 728	247 035	275 616	285 447	254 225
Farm working expenses (\$)	141 635	141 907	151 310	153 659	150 544
Farm profit before tax (\$)	98 654	49 501	50 823	66 526	49 924
Farm surplus for reinvestment (\$) ¹	22 219	-14 456	4 174	4 157	-16 453

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

^R The model parameters have been revised so the data for 2007/08 will not match that published in the *Pastoral Monitoring Report 2008*.



»» TABLE 2: WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL BUDGET

	2008/09			2009/10 BUDGET			CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT ¹ (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT ¹ (\$)	
REVENUE							
Sheep	79 327	264	54.41	75 698	252	54.46	-5
Wool	8 978	30	6.16	15 457	52	11.12	72
Cattle	273 602	912	170.36	239 282	798	146.44	-13
Grazing income (including hay and silage sales)	23 940	80	7.81	27 060	90	8.95	13
Other farm income	7 100	24	2.32	7 100	24	2.35	0
LESS:							
Sheep purchases	5 963	20	4.09	5 722	19	4.12	-4
Cattle purchases	101 537	338	63.22	104 650	349	64.05	3
Net cash income	285 447	951	93.16	254 225	847	84.07	-11
Farm working expenses	153 659	512	50.15	150 544	502	49.78	-2
Cash operating surplus	131 788	439	43.01	103 681	346	34.29	-21
Interest	36 260	121	11.83	31 752	106	10.50	-12
Rent and/or leases	10 200	34	3.33	10 200	34	3.37	0
Stock value adjustment	-3 829	-13	-1.25	4 487	15	1.48	-217
Minus depreciation	14 973	50	4.89	16 292	54	5.39	9
Farm profit before tax	66 526	222	21.71	49 924	166	16.51	-25
Taxation	11 775	39	3.84	7 590	25	2.51	-36
Farm profit after tax	54 751	183	17.87	42 334	141	14.00	-23
ALLOCATION OF FUNDS							
Add back depreciation	14 973	50	4.89	16 292	54	5.39	9
Reverse stock value adjustment	3 829	13	1.25	-4 487	-15	-1.48	-217
Income equalisation	0	0	0.00	0	0	0.00	...
Off-farm income	22 600	75	7.38	25 400	85	8.40	12
Discretionary cash	96 153	321	31.38	79 539	265	26.30	-17
APPLIED TO:							
Net capital purchases	25 916	86	8.46	18 600	62	6.15	-28
Development	0	0	0.00	0	0	0.00	...
Principal repayments	0	0	0.00	0	0	0.00	...
Drawings	69 396	231	22.65	70 592	235	23.34	2
New borrowings	0	0	0.00	0	0	0.00	...
Introduced funds	15 000	50	4.90	14 550	49	4.81	-3
Cash surplus/deficit	15 841	53	5.17	4 897	16	1.62	-69
Farm surplus for reinvestment²	4 157	14	1.36	-16 453	-55	-5.44	-496
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	4 226 657	14 089	1 379.46	4 015 324	13 384	1 327.82	-5
Plant and machinery (opening)	79 662	266	26.00	88 029	293	29.11	11
Stock valuation (opening)	309 218	1 031	100.92	305 477	1 018	101.02	-1
Other produce on hand (opening)	13 576	45	4.43	16 616	55	5.49	22
Total farm assets (opening)	4 629 113	15 430	1 510.81	4 425 446	14 751	1 463.44	-4
Total assets (opening)	4 914 421	16 381	1 603.92	4 638 846	15 463	1 534.01	-6
Total liabilities (opening)	440 246	1 467	143.68	439 526	1 465	145.35	0
Total equity (farm assets – liabilities)	4 188 867	13 963	1 367.12	3 985 920	13 286	1 318.10	-5

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 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: WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL EXPENDITURE

	2008/09			2009/10 BUDGET			CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT ¹ (\$)	WHOLE FARM (\$)	PER HECTARE (\$)	PER STOCK UNIT ¹ (\$)	
FARM WORKING EXPENSES							
Permanent wages	0	0	0.00	0	0	0.00	...
Casual wages	12 272	41	4.01	12 621	42	4.17	3
ACC	265	1	0.09	325	1	0.11	23
Total labour expenses	12 538	42	4.09	12 947	43	4.28	3
Animal health	10 801	36	3.53	11 234	37	3.71	4
Breeding	0	0	0.00	0	0	0.00	...
Electricity	3 426	11	1.12	3 569	12	1.18	4
Feed (hay and silage)	13 150	44	4.29	12 950	43	4.28	-2
Feed (feed crops)	0	0	0.00	0	0	0.00	...
Feed (grazing)	0	0	0.00	0	0	0.00	...
Feed (other)	0	0	0.00	0	0	0.00	...
Fertiliser	31 860	106	10.40	28 240	94	9.34	-11
Lime	2 889	10	0.94	2 263	8	0.75	-22
Cash crop expenses	0	0	0.00	0	0	0.00	...
Freight (not elsewhere deducted)	6 320	21	2.06	6 575	22	2.17	4
Regrassing costs	6 366	21	2.08	6 366	21	2.11	0
Shearing expenses	7 071	24	4.85	7 395	25	5.32	5
Weed and pest control	4 650	16	1.52	4 776	16	1.58	3
Fuel	7 323	24	2.39	7 071	24	2.34	-3
Vehicle costs (excluding fuel)	7 457	25	2.43	7 302	24	2.41	-2
Repairs and maintenance	16 386	55	5.35	15 364	51	5.08	-6
Total other working expenses	117 700	392	38.41	113 104	377	37.40	-4
Communication costs (phone and mail)	2 360	8	0.77	2 345	8	0.78	-1
Accountancy	3 119	10	1.02	3 100	10	1.03	-1
Legal and consultancy	1 784	6	0.58	1 773	6	0.59	-1
Other administration	1 884	6	0.61	1 873	6	0.62	-1
Water charges (irrigation)	0	0	0.00	0	0	0.00	...
Rates	8 694	29	2.84	9 216	31	3.05	6
Insurance	3 060	10	1.00	3 180	11	1.05	4
Other expenditure ²	2 521	8	0.82	3 007	10	0.99	19
Total overhead expenses	23 422	78	7.64	24 493	82	8.10	5
Total farm working expenses	153 659	512	50.15	150 544	502	49.78	-2
Wages of management	75 000	250	24.48	75 000	250	24.80	0
Depreciation	14 973	50	4.89	16 292	54	5.39	9
Total farm operating expenses	243 632	812	79.51	241 836	806	79.97	-1
CALCULATED RATIOS							
Economic farm surplus (EFS ³)	37 986	127	12.40	16 876	56	5.58	
Farm working expenses/NCI ⁴	54%			59%			
EFS/total farm assets	0.8%			0.4%			
EFS less interest and lease/equity	-0.2%			-0.6%			
Interest+rent+lease/NCI	16.3%			16.5%			
EFS/NCI	13.3%			6.6%			

Notes

1 Shearing expenses per stock unit based on sheep stock units.

2 Includes Accident Compensation Corporation (ACC) employer levy.

3 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.

4 Net cash income.

Symbol

... Not applicable.

FINANCIAL PERFORMANCE OF THE WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL IN 2008/09

The cash operating surplus for the Waikato/Bay of Plenty intensive sheep and beef farm model increased by 6 percent in 2008/09 to \$131 800. The key driver was a 4 percent increase in net cash income in 2008/09 to \$285 400, a result of improved cattle and lamb prices. Farm working expenditure was kept under control with a slight 2 percent increase over 2007/08 to \$153 700 in 2008/09.

REVENUE CONTINUES TO CLIMB DESPITE SECOND SUCCESSIVE DROUGHT

Net sheep returns (sales less purchases) increased 17 percent to \$73 400 in 2008/09. This was driven by a 45 percent increase in the average lamb price over the 2007/08 season to \$82.74 per head. The buoyant lamb schedule throughout the season resulted in a higher proportion of lambs finished to heavier carcass weights, rather than being traded. Supply shortages in the market due to the de-stocking of breeding ewes and the lambing percentage reducing to 111 percent in 2008/09 had a positive influence on store prices.

Breeding ewes on hand at opening in the farm model were 8 percent down on 2007/08 to 933 ewes. De-stocking occurred as a result of the low pasture cover coming out of the 2007/08 drought and the wet 2008 winter, combined with poor prices. Lambing percentages continued to decline, down to 111 percent in 2008/09 (compared with 126 percent in 2007/08) as a result of lower stock condition following the 2007/08 drought.

The average wool price fell marginally in 2008/09 to \$2.23 per kilogram, however wool returns almost halved to \$9000 in 2008/09, down from \$16 900 in 2007/08. This reflects a lower volume of wool sold, as farmers carried wool over, with wool stocks on hand increasing 40 percent to 8.4 tonnes.

Net cattle income (sales less purchases) increased 3 percent in 2008/09 to \$172 100 compared with \$166 400 in 2007/08. Cattle income increased 4 percent to \$273 600, driven by an 8 percent increase in steer prices and a 13 percent increase in bull prices.

The farm model grazes 56 rising 2-year-old heifers which generated \$24 000 in revenue in 2008/09, a 7 percent increase compared with 2007/08.

TOTAL EXPENDITURE LEVEL SIMILAR, BUT FERTILISER APPLICATION REDUCED SIGNIFICANTLY

Total farm working expenditure increased 2 percent in 2008/09 to \$153 700. On a per stock unit basis farm working expenditure increased 8 percent to \$50.15 per stock unit in 2008/09 compared with \$46.47 in 2007/08, bearing in mind total stock units fell on the farm model by 6 percent. Farm working expenditure on the monitored farms in 2007/08 ranged from \$20.34 per stock unit through to \$182.13 per stock unit.

»»» TABLE 4: WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF MODEL CASH FARM INCOME

YEAR ENDED 30 JUNE	2005/06 (\$)	2006/07 (\$)	2007/08 ^R (\$)	2008/09 (\$)	2009/10 BUDGET (\$)
Sheep sales less purchases	89 934	80 630	62 746	73 364	69 976
Cattle sales less purchases	136 095	126 070	166 370	172 065	134 632
Wool	16 849	17 249	16 887	8 978	15 457
Grazing income (including hay and silage sales)	27 120	16 786	22 472	23 940	27 060
Other income	0	6 300	7 141	7 100	7 100
Net cash income	269 728	247 035	275 616	285 447	254 225

Symbol

R The model parameters have been revised so the data for 2007/08 will not match that published in the *Pastoral Monitoring Report 2008*.

Feed expenditure on the farm model decreased by 8 percent to \$13 200 or \$4.29 per stock unit in 2008/09. This was due to the higher quantity of supplementary feed that was bought in the previous year, as a result of the 2008 drought. Feed expenditure varies significantly across farms dependent on the farming management system used, with expenditure on monitored farms in 2007/08 ranging from less than \$1 per stock unit, to \$21 per stock unit.

Fertiliser expenditure decreased 6 percent to \$31 900 in 2008/09 compared with \$33 900 in 2007/08. The total amount of fertiliser applied reduced 42 percent, to 42 tonnes (36 tonnes of 20 percent potassic super and 6 tonnes of urea) in 2008/09, from 72 tonnes in 2007/08. This decision was driven by a significant increase in the international price for fertiliser during 2008/09. In the 2008/09 season, the price of 20 percent potassic super increased 76 percent to \$600 per tonne, and the price of urea increased by 96 percent to \$1100 per tonne. Fertiliser application in 2008/09 is 43 percent of the recommended maintenance level, down from 74 percent in 2007/08 and may have a slowing effect on the onset of spring growth.

Lime expenditure doubled to \$2900 and application doubled to 60 tonnes, reflecting attempts to substitute lime for fertiliser to feed the soils.

Regrassing expenditure increased 21 percent to \$6400 in 2008/09 compared with \$5200 in 2007/08. The 2007/08 drought caused significant damage to pasture, and the subsequent increase in regrassing expenditure is to renew pastures. The drought also resulted in the farm model consuming more fuel than usual, with fuel expenditure increasing 12 percent to \$7300 in 2008/09 compared with \$6600 in 2007/08. Stock had to be moved around the farm and supplemented with feed on a more regular basis than usual.

Debt servicing costs remained similar to the previous year at \$36 300 in 2008/09, as the benefit of reduced interest rates were yet to be realised. On a per stock unit basis debt servicing costs increased from \$11.16 in 2007/08 to \$11.83 in 2008/09 due to a reduction in stock units on hand at opening. Debt servicing levels in the farm model are 13 percent of net cash income; however, 25 percent of monitored farms have debt servicing levels of \$18 or more in 2007/08. If these levels were used on the farm model, debt servicing levels would equate to 20 percent of net cash income, which could be absorbed by this model.

NET RESULT IMPROVED

Farm profit before tax in the Waikato/Bay of Plenty intensive sheep and beef model increased 31 percent in 2008/09 to \$66 500 compared with \$50 800 in 2007/08, largely driven by improved cattle and lamb prices. On a per stock unit basis net profit before tax increased 39 percent to \$21.71.

Capital purchases increased 23 percent to \$25 900 compared with \$21 000 in 2007/08, as worn farm machinery required replacement. Development on-farm was suspended in 2008/09 due to successive years of low farm profitability. Drawings increased 5 percent to \$69 400 to maintain standards of living.

Cash surplus decreased 58 percent in 2008/09 to \$15 800. Much of this reduction is associated with the new borrowing that occurred during 2007/08; in contrast to no new borrowing taken out in 2008/09. It is important to note that without off-farm income, which decreased by 10 percent to \$22 600 in 2008/09, and introduced funds, the farm model would have had a cash deficit of \$21 700 in 2008/09.



BUDGET FINANCIAL PERFORMANCE OF THE WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL IN 2009/10

The cash operating surplus in 2009/10 is budgeted to decrease 21 percent to \$103 700. This is driven by an expected fall in the price of cattle by between 13 and 15 percent.

REVENUE EXPECTED TO FALL SIGNIFICANTLY

Net sheep returns (sales less purchases) are budgeted to decrease 5 percent in 2009/10 to \$70 000, reflecting an expectation for lamb prices to fall 5 percent over 2008/09 to \$78 per head. Lambing percentages are expected to increase to 121 percent following good feed conditions in autumn 2009. Facial eczema was rife throughout the region for the second year in a row and is anticipated to have a negative impact on ewe survival and productivity rates during 2009/10 and partly explains why lambing is expected to be still below normal levels.

Wool prices are budgeted to decrease 13 percent in 2009/10 to \$1.94 per kilogram. Total wool revenue is, however, expected to increase by 72 percent to \$15 500, due to the wool sold (recorded as wool produced in Table 1) doubling over the 2008/09 year to 8 tonnes, as a result of the carry over of wool from 2008/09.

Net cattle returns (sales less purchases) are budgeted to decrease 22 percent in 2009/10 to \$134 600 compared with \$172 000 in 2008/09, driven by an expectation that cattle prices will decrease 13 to 15 percent over 2008/09. The price for replacement cattle is expected to increase in part due to increased demand as a result of land previously used to grow maize being used for cattle finishing.

Grazing income is expected to increase 13 percent to \$27 100 in 2009/10 as a result of increasing the grazing herd by eight, to 64 heifers. Dairy farmers are reducing their supplementary feed expenditure, but are still grazing out their stock.

EXPENDITURE EXPECTED TO FALL marginally

Farm working expenditure has been budgeted to decrease 2 percent in 2009/10 to \$150 500 or \$49.78 per stock unit compared with \$153 700 or \$50.15 per stock unit in 2008/09.

Fertiliser expenditure is budgeted to decrease 11 percent in 2009/10 to \$28 200 driven by a reduction in the unit price; the cost of potassic super is expected to decrease 10 percent to \$540 per tonne, and the cost of urea is expected to decrease 41 percent to \$650 per tonne. The volume of fertiliser applied is expected to increase 5 percent to 44 tonnes, however, it is still below maintenance, at 46 percent of the recommended level. The 2009/10 season will be the third consecutive year the farm model has applied below maintenance fertiliser. This is a concern for the sustainability of the farm system in the longer term.

Lime expenditure is budgeted to decrease 22 percent in 2009/10 to \$2300 compared with \$2900 in 2008/09 with application expected to decrease by the same proportion to 47 tonnes.

Debt servicing costs are budgeted to decrease 12 percent in 2009/10 to \$31 800 as lower interest rates take effect. Debt servicing per stock unit is budgeted to decrease by a similar percentage to \$10.50. The interest rate on the term loan has reduced to 7.6 percent from 8.7 percent, and on the overdraft to 9.5 percent from 10.7 percent. Principal repayments continue to be suspended.

NET RESULT DETERIORATES

Farm profit before tax is expected to decrease 25 percent in 2009/10 to \$49 900, or \$16.51 per stock unit compared with \$66 500 or \$21.17 per stock unit in 2008/09. This level of



profit is very similar to the levels experienced in 2006/07 and 2007/08, which were less than desirable.

Capital purchases are budgeted to decrease 28 percent in 2009/10 to \$18 600, a result of reduced profitability.

Development is being suspended for the second consecutive year.

Overall, the farm model is expecting a 69 percent reduction in cash surplus in 2009/10 to \$4900, a result of reduced earnings. Without the off-farm income, which is budgeted to increase 12 percent to \$25 400, and introduced funds of \$14 600, the farm model would have a cash deficit of \$35 100.

INFORMATION ABOUT THE MODEL

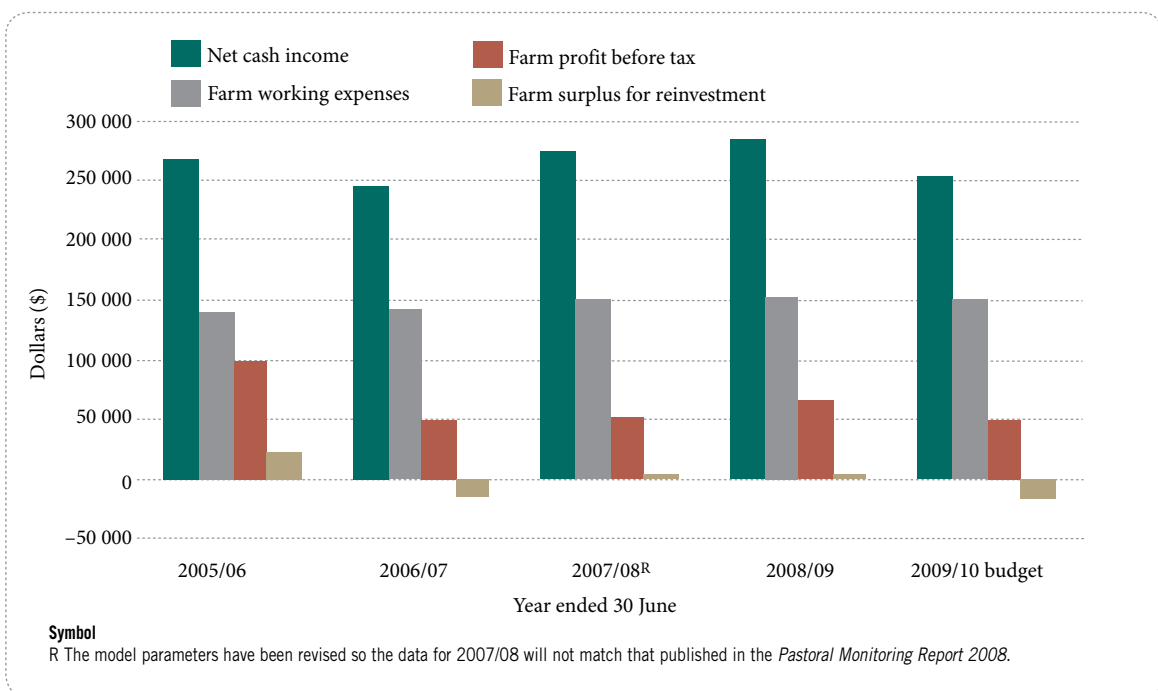
The Waikato/Bay of Plenty sheep and beef farm model represents 722 farms bounding the predominately dairying districts of the region. The farm model is a 300 effective hectare operation representing a typical finishing beef cattle and sheep farm with rolling-to-easy hill contour and volcanic ash soil.

The dominant enterprise on the farm is bull beef finishing, combined with steer finishing and dairy grazers. A high performance sheep flock is crossed with a high-fertility breed.

The 2007/08 year was reviewed so published figures for 2007/08 in this report will differ from previous monitoring reports.

For more information on this model contact Tony.Schischka@maf.govt.nz

»» FIGURE 1: WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF MODEL PROFITABILITY TRENDS



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