

VITICULTURE



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

KEY POINTS

- › Growers in Marlborough trimmed yields by 20 percent or about 3 tonnes per hectare in 2008/09 in response to wineries imposing yield caps. Hawkes Bay growers experienced a lift in yields in 2008/09 following a frost affected crop the previous season.
- › The price for Marlborough Sauvignon Blanc fell 29 percent to \$1720 per tonne in 2008/09 reflecting increased wine stocks from 2008 and similar volumes confirmed for the 2009 vintage. Despite the production of quality fruit in Hawkes Bay, overall prices paid in 2008/09 were down by 11 percent to \$1565 per tonne, reflecting the current malaise in market demand.
- › Capped yields and reduced prices resulted in the Marlborough model witnessing a major correction in vineyard profit before tax, dropping 83 percent to \$69 400 in 2008/09 compared with the previous season. The Hawkes Bay model achieved a small profit before tax of \$3600 recovering from a loss the previous year.
- › In 2009/10 Marlborough growers face the challenge of providing wineries with top quality grapes while satisfying tight yield constraints and still achieving a profitable outcome. Similarly, Hawkes Bay growers are aiming to improve production efficiencies to reduce costs and maintain a small cash surplus for reinvestment.
- › The increase in production of Marlborough Sauvignon Blanc over recent years is now out of synch with current market demand. Wineries have attempted to clear this excess wine through bulk exporting, cheap cleanskins and lower class brands. Sustained sales by these methods have the potential to significantly erode the price premium commanded to date by New Zealand wines. The industry will be working hard to develop alternative sales strategies that better underpin future profitable returns.

»» TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE VINEYARD MODELS

YEAR ENDED 30 JUNE	2005/06	2006/07	2007/08	2008/09	2009/10 BUDGET
MARLBOROUGH MODEL					
Planted area (ha)	29.0	29.0	29.0	31.0	31.0
Producing area (ha)	23.0	25.0	27.0	29.0	30.0
Total production ¹ (t)	235	248	368	308	333
Average return (\$/t)	2 252	2 311	2 445	1 813	1 805
Net cash income (\$)	536 700	587 300	907 300	569 200	612 500
Vineyard working expenses (\$)	176 000	207 900	288 600	292 900	286 500
Vineyard profit before tax (\$)	224 800	267 800	404 200	69 400	131 600
Vineyard surplus for reinvestment ² (\$)	165 000	186 500	334 700	35 700	95 700
HAWKES BAY MODEL					
Planted area (ha)	10.0	10.0	10.0	10.0	10.0
Producing area (ha)	9.7	9.6	9.6	9.6	9.8
Total production (t)	80	93	66	89	89
Average return (\$/t)	1 569	1 625	1 750	1 565	1 575
Net cash income (\$)	126 100	152 100	115 400	139 400	140 400
Vineyard working expenses (\$)	84 000	80 300	90 700	90 800	87 700
Vineyard profit before tax (\$)	6 000	36 600	-16 400	3 600	11 700
Vineyard surplus for reinvestment (\$)	-19 400	13 900	-39 500	1 600	10 800

Notes

Figures may not add to totals due to rounding.

1 Grapes are harvested in the autumn, so the 2008/09 year refers to fruit harvested in autumn 2009.

2 Vineyard surplus for reinvestment is the cash available from the vineyard business, after meeting living costs, which is available for investment on the vineyard or for principal repayments. It is calculated as discretionary cash less off-vineyard income and drawings.



MARLBOROUGH VINEYARD MODEL

FINANCIAL PERFORMANCE OF THE MARLBOROUGH VINEYARD MODEL IN 2008/09

The Marlborough vineyard model achieved a profit before tax of only \$69 400 in 2008/09, down 83 percent on the previous year. This significant change in profit arises from grape supply exceeding market demand, which forced wineries to restrict yields and reduce prices paid per tonne. The Marlborough model's producing area increased by two hectares for the 2008/09 year to 29 hectares, and increases again to 30 hectares in the following year.

REVENUE DOWN SIGNIFICANTLY

In 2008/09 net cash income was \$569 200 or about \$19 600 per hectare, which is 37 percent down on the previous year. This is due to the average yield being reduced 22 percent to 10.6 tonnes per hectare and the average price receding 26 percent to \$1813 per tonne.

PRICES RETREAT AS DEMAND SOFTENS

Last year growers expected prices for 2008/09 to decline by 5 percent given increases in stocks from the large vintage of 2008. However, the average grape price fell by 26 percent to \$1813 per tonne. The reasons behind the drop in prices were excessive wine stock from 2008, a worsening global recession and early indications of a 2009 vintage equal to the previous year (refer to Table 2 for price information).

Sauvignon Blanc was the variety most affected, experiencing a 29 percent decline in average price to \$1721 per tonne. The 2008 Marlborough Sauvignon Blanc crop was 153 700 tonnes, up 69 percent on the previous vintage. A significant proportion of the 2008 vintage was still in storage tanks at the time of the 2009 harvest. As a result, wineries heavily discounted wine in both bottle and bulk form in an attempt to free up tank space to process the 2009 crop.

Pinot Noir prices remained comparatively strong in 2009. The price per tonne declined just 4 percent from 2008 to \$3137 as demand for this variety continued. The "other white" category is replaced in the model this year with the predominant variety, Pinot Gris.

»»» TABLE 2: MARLBOROUGH VINEYARD MODEL GRAPE PRICES

YEAR ENDED 30 JUNE	2005/06 (\$/T)	2006/07 (\$/T)	2007/08 (\$/T)	2008/09 (\$/T)	2009/10 BUDGET (\$/T)
Sauvignon Blanc	2 355	2 355	2 435	1 721	1 696
Pinot Noir – table	2 751	3 037	3 277	3 137	3 055
Pinot Gris ¹	2 311	2 649	2 700	2 151	2 025
Chardonnay – Mendoza and Clone 15	1 976	2 069	2 133	1 876	1 920
Chardonnay – All other clones	1 961	2 057	2 146	1 720	1 700
Riesling	1 930	1 892	1 830	1 728	1 788
Pinot Noir – sparkling	1 100	1 226	1 800	1 400	1 400
Weighted average	2 252	2 311	2 445	1 813	1 805

Note

¹ Prior to 2008/09 Pinot Gris was included with Gewurztraminer in the Other White variety.



PRODUCTION DOWN AS YIELD CAPS ARE APPLIED

Total production in 2008/09 for the Marlborough vineyard model decreased to 308 tonnes, down 16 percent on the previous year. This decrease was despite a 2 hectare expansion in the model's producing area. Yields per hectare on average decreased 22 percent from 13.6 to 10.6 tonnes in 2008/09 and from 14.4 to 11.5 tonnes per hectare for Sauvignon Blanc.

The main factor behind this yield reduction was wineries introducing and enforcing yield caps for the 2009 vintage. Wineries were compelled to take this action when early crop estimates indicated that yields could be similar to the very high yields of 2008, combined with the need to market the large carryover of wine stock from 2008. Consequently, growers increased crop thinning in January and February to match bunch numbers to target yields as specified in supply contracts.

Rainfall in December soon after flowering increased the risk of *Botrytis* rot. Following rainfall in February, some growers had to bunch thin again to remove diseased fruit, particularly for the Pinot Noir variety. This further decreased yields, causing some friction between growers and wineries as some blocks ended up below target yields.

Winter and spring rainfall ensured irrigation was not a limiting factor at any stage during the season. Frost did not cause any significant damage in Marlborough vineyards in 2008/09.

EXPENDITURE IN 2008/09 HOLDING

Vineyard working expenses per producing hectare were about \$10 100 in 2008/09. Labour expenses for canopy and crop management increased as growers took action to reduce crop levels. In contrast, hand harvesting, pruning and other wage expenses (which includes labour for development) all declined, leading to total labour expenses remaining relatively unchanged from 2007/08. Pruning expenses declined slightly as more growers employed labour directly or completed more of the work themselves.

Other operating expenses decreased \$421 per hectare in 2008/09 as growers made small savings across the board. Of note was repairs and maintenance where growers used vineyard surpluses from the previous year to complete deferred work. Growers were also able to make some savings in electricity (irrigation) and frost protection due to the more favourable climatic conditions. Growers spent more on disease control due to wet conditions at flowering and pre-harvest, while fertiliser expenses were up as growers invested some of the previous year's surplus.

BUSINESS CONSOLIDATION GIVEN CHALLENGING MARKET ENVIRONMENT

Development and capital purchases dropped dramatically in 2008/09. New plantings have virtually stopped in 2009 but four of the 18 monitored growers with new vines planted in 2008 will experience an increase in producing area in 2010. Capital purchases are now based around equipment designed to improve efficiencies in pruning, canopy management and multi-tasking.

Growers are taking advantage of the large vineyard surplus in 2007/08 by reducing debt through increased principal repayments in 2008/09. Tax payments are reduced in 2008/09 as growers opted to meet their full tax obligations for 2007/08 within that year given they had the cash in hand and expected income to reduce in 2008/09.

The model's total debt of just over \$1 million represents just 13 percent of total vineyard capital. The model represents a predominately mature and established unit. Banks report that a large number of new vineyards



recently developed in the Marlborough region, particularly in outlying areas, are carrying a higher proportion of debt than the model, typically around 25 percent but extending up to 40 percent.

BUDGET FINANCIAL PERFORMANCE OF THE MARLBOROUGH VINEYARD MODEL IN 2009/10

The model's net cash income is expected to improve by 8 percent in 2009/10 to \$612 500, while vineyard expenditure is expected to remain steady. Consequently, the vineyard's profit before tax is predicted to rise from \$69 400 to \$131 600 in 2009/10.

GROWERS EXPECT REVENUE TO BE UP ON 2008/09

Growers monitored are forecasting a small improvement in net cash income due in part to a further increase in producing area, as vines planted in 2008 come into production, but also due to an increase in average yield per hectare.

EXPECT PRICES SIMILAR TO LAST YEAR BUT SOME UNCERTAINTY REGARDING CONTRACTS

Growers monitored in May 2009 expected similar prices paid per tonne of grapes in 2009/10. Some growers expressed concern that a portion of their crop, particularly some Sauvignon Blanc, did not have a confirmed supply contract for 2009/10. This is reflected in a slight drop in the budgeted price for Sauvignon Blanc. Those growers that did have contracts were budgeting on a slight rise in the Sauvignon Blanc price in 2009/10.

YIELD HAS THE POTENTIAL TO BE UP BY 5 PERCENT

Average yields are budgeted to increase 5 percent or about half a tonne per hectare. With a 1 hectare increase in producing area, total vineyard production is predicted to increase 8 percent, to 333 tonnes for 2009/10. Growers forecast Sauvignon Blanc to average 11.8 tonnes per hectare in 2009/10, up slightly from 11.5 tonnes per hectare in 2008/09.

Plant and Food Research, based at the Marlborough Research Centre, recently completed an independent assessment of yield modelling. This work took place at five vineyards in five distinct geographical locations in the Marlborough region. The assessment confirmed that vines have the potential to produce yields 5 percent above average in 2009/10.

Some factors that could significantly change this yield outcome are frost incidence, warmer/cooler temperatures at flowering and the size of canes retained. However, the most important factor determining yields in the current economic climate is likely to be the yield capping criteria imposed by wineries.

EXPENDITURE FORECAST TO REMAIN STEADY IN 2009/10

Model vineyard working expenditure is forecast to decrease by about 2 percent or \$550 per hectare in 2009/10. This is despite a 1 hectare increase in producing area and due to growers expecting lower input costs in 2009/10.

Labour expenses are expected to decline in 2009/10 with less development and less canopy/crop management. Growers are expecting to manage pruning differently this season to target lower yields by tying down fewer fruiting canes, rather than having to reduce yields through more expensive crop thinning. This is seen by some industry commentators to be somewhat risky as climatic conditions, especially at flowering, can naturally reduce crop levels.

Growers expect increased use of specialised machinery for pruning in the coming year. This should bring the cost of pruning down, speed up the process and allow growers and contractors to use skilled staff more effectively.

Growers are expecting expenditure reductions in weed and pest control, fertiliser use, and repairs and maintenance. Reductions in weed and pest control expenses are due to growers being hopeful of a more favourable growing season with less *Botrytis* pressure. In contrast, reductions in fertiliser and repairs and maintenance expenses are seen as cost cutting measures.

With the uncertainty around income levels, growers plan to spend less on capital, vineyard development, drawings and principal repayments. Taxation will also be lower, in line with reduced profits.

PROFITABILITY TRENDS FOR THE MARLBOROUGH VINEYARD MODEL

Reduced profits can be expected in the vineyard model in the short term as the industry works to sell increased volumes of Sauvignon Blanc into a weaker world market. International demand exceeding supply is no longer the case for Marlborough Sauvignon Blanc. As a result, some rationalisation can be expected within the industry. The viability of contract grape growing businesses that have entered the industry more recently are likely to come under pressure due to:

- › difficulties in securing winery contracts;
- › higher than average levels of debt;
- › vineyards being located in marginal sites.

Possessing a secure contract with a winery over the next two to three years will be critical for ongoing business viability. Industry commentators say it is likely that growers who have provided a quality product over many years to a given winery will likely be viewed more favourably than those who have regularly played the spot market.

Growers are focused on consolidating their businesses in these challenging times. Alongside the winery requirement for meeting quality parameters, Marlborough growers are now adjusting to working with yield caps, a standard practice in other grape growing regions.



»» TABLE 3: MARLBOROUGH VINEYARD MODEL BUDGET

	2008/09				2009/10 BUDGET				CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER Tonne GROSS (\$)	PER VINE (\$)	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER Tonne GROSS (\$)	PER VINE (\$)	
REVENUE									
Income from grapes	558 800	19 268	1 814	9.80	601 000	20 030	1 804	10.01	8
Other vineyard income	10 400	359	34	0.18	11 500	383	35	0.19	10
Net cash income	569 200	19 627	1 847	9.98	612 500	20 413	1 839	10.20	8
Vineyard working expenses	292 900	10 098	950	5.14	286 500	9 548	860	4.77	-2
Cash operating surplus	276 300	9 529	897	4.85	326 000	10 865	979	5.43	18
Interest	89 200	3 077	290	1.56	82 600	2 754	248	1.38	-7
Rent and/or leases	26 600	916	86	0.47	26 000	868	78	0.43	-2
Depreciation	91 100	3 142	296	1.60	85 800	2 861	258	1.43	-6
Net non-fruit cash income	0	0	0	0.00	0	0	0	0.00	..
Vineyard profit before tax	69 400	2 394	225	1.22	131 600	4 382	395	2.19	89
Tax	33 400	1 153	109	0.59	38 100	1 270	114	0.63	14
Vineyard profit after tax	36 000	1 241	117	0.63	93 500	3 112	280	1.55	159
Add back depreciation	91 100	3 142	296	1.60	85 800	2 861	258	1.43	-6
Off-vineyard cash income	9 100	313	29	0.16	6 800	225	20	0.11	-26
Discretionary cash	136 200	4 696	442	2.39	186 100	6 198	558	3.10	37
APPLIED TO:									
Net capital purchases	41 400	1 428	134	0.73	15 000	500	45	0.25	-64
Development	22 400	773	73	0.39	19 000	632	57	0.32	-15
Drawings	91 400	3 150	296	1.60	83 600	2 788	251	1.39	-8
Principal repayments	72 100	2 487	234	1.26	37 800	1 260	114	0.63	-48
New borrowings	21 200	730	69	0.37	0	0	0	0.00	..
Introduced funds	0	0	0	0.00	0	0	0	0.00	..
Cash surplus/deficit	-69 900	-2 412	-227	-1.23	30 700	1 018	92	0.51	144
Vineyard surplus for reinvestment ¹	35 700	1 233	116	0.63	95 700	3 185	287	1.59	167
ASSETS AND LIABILITIES									
Land and building (opening)	7 903 400	272 531	25 652	138.61	7 814 200	260 473	23 468	130.12	-1
Plant and machinery (opening)	208 800	7 201	678	3.66	189 600	6 320	569	3.16	-9
Vineyard related investments (opening)	96 000	3 312	312	1.68	92 600	3 088	278	1.54	-4
Total vineyard assets (opening)	8 208 200	283 044	26 642	143.95	8 096 400	269 881	24 314	134.82	-1
Total vineyard liabilities (opening)	1 035 800	35 716	3 362	18.16	984 900	32 829	2 958	16.40	-5
Total vineyard equity	7 172 400	247 328	23 280	125.79	7 111 500	237 052	21 356	118.42	-1

Notes

Figures may not add to totals due to rounding.

¹ Vineyard surplus for reinvestment is calculated as follows: discretionary cash less off-vineyard income and drawings.

Symbol

.. Not applicable.



»» TABLE 4: MARLBOROUGH VINEYARD MODEL EXPENDITURE

	2008/09				2009/10 BUDGET				CHANGE
	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER TONNE GROSS (\$)	PER VINE (\$)	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER TONNE GROSS (\$)	PER VINE (\$)	BETWEEN 2008/09 AND 2009/10 (%)
VINEYARD WORKING EXPENSES									
Hand harvesting	3 400	116	11	0.06	3 800	126	11	0.06	12
Pruning (and tying down)	73 500	2 533	238	1.29	77 700	2 589	233	1.29	6
Canopy/crop management	48 700	1 678	158	0.85	39 100	1 303	117	0.65	-20
Other wages	20 800	718	68	0.37	19 200	640	58	0.32	-8
ACC – employees	1 200	42	4	0.02	1 200	40	4	0.02	-1
Total labour expenses	147 600	5 087	479	2.59	141 000	4 698	423	2.35	-4
Weed and pest control	28 500	982	92	0.50	28 500	951	86	0.48	0
Fertiliser and lime	12 200	419	39	0.21	8 900	298	27	0.15	-26
Electricity	3 900	134	13	0.07	4 300	142	13	0.07	10
Vehicle	8 100	281	26	0.14	7 600	253	23	0.13	-7
Fuel	8 500	294	28	0.15	8 800	294	26	0.15	3
Repairs and maintenance	13 300	459	43	0.23	11 600	388	35	0.19	-13
General	4 600	158	15	0.08	4 400	147	13	0.07	-4
Frost protection	1 900	64	6	0.03	5 500	182	16	0.09	194
Contract machinery work	6 500	225	21	0.11	7 000	232	21	0.12	7
Machine harvesting	18 400	633	60	0.32	19 100	638	57	0.32	4
Total other working expenses	105 900	3 649	343	1.86	105 700	3 525	318	1.76	0
Rates	10 500	363	34	0.18	10 900	362	33	0.18	3
Water rates	2 200	74	7	0.04	2 500	84	8	0.04	17
General insurance	4 400	153	14	0.08	4 600	153	14	0.08	3
Crop insurance	0	0	0	0.00	0	0	0	0.00	..
ACC owners	2 700	94	9	0.05	2 300	76	7	0.04	-16
Communication	3 900	135	13	0.07	3 800	126	11	0.06	-3
Accountancy	4 600	159	15	0.08	4 800	162	15	0.08	5
Legal and consultancy	2 000	70	7	0.04	1 500	51	5	0.03	-25
Levies and subscriptions	5 100	175	16	0.09	5 200	172	15	0.09	2
Other administration	4 000	139	13	0.07	4 200	139	13	0.07	3
Total overhead expenses	39 400	1 362	128	0.69	39 800	1 325	119	0.66	1
Total vineyard working expenses	292 900	10 098	950	5.14	286 500	9 548	860	4.77	-2
Wages of management	75 000	2 586	243	1.32	75 000	2 500	225	1.25	0
Depreciation	91 100	3 142	296	1.60	85 800	2 861	258	1.43	-6
Total vineyard operating expenses	459 000	15 826	1 490	8.05	447 300	14 909	1 343	7.45	-3
CALCULATED RATIOS									
Economic vineyard surplus (EVS) ¹	110 200	3 801	358	1.93	165 100	5 504	496	2.75	
Vineyard working expenditure/NCI ²	51%				47%				
EVS/total vineyard assets	1.3%				2.0%				
EVS less interest and lease/equity	-0.1%				0.8%				
Interest+rent+lease/NCI	20%				32%				
EVS/NCI	19%				27%				

Notes

Figures may not add to totals due to rounding.

1 EVS (or earnings before interest and tax) is calculated as follows: net cash income less vineyard 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 vineyard assets to a maximum of \$75 000.

2 Net cash income.

Symbol

.. Not applicable.

»»» TABLE 5: MARLBOROUGH VINEYARD MODEL PRODUCTION AND INCOME DETAILS FOR 2008/09

YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN (\$/T)	REVENUE (\$)
Sauvignon Blanc	20.8	11.5	239.2	78	22.1	1 721	411 700
Pinot Noir – table	2.7	6.2	16.7	5	24.2	3 137	52 500
Pinot Gris ¹	1.5	5.0	7.5	2	23.7	2 151	16 100
Chardonnay – Mendoza and Clone 15	1.5	10.6	15.9	5	22.9	1 876	29 800
Chardonnay – all other clones	1.2	11.9	14.3	5	22.5	1 720	24 600
Riesling	1.0	11.5	11.5	4	21.9	1 728	19 900
Pinot Noir – sparkling	0.3	10.0	3.0	1	20.0	1 400	4 200
Total/average	29.0	10.6	308	100		1 813	558 800

Notes

Figures may not add to totals due to rounding.

¹ Prior to 2008/09 Pinot Gris was included with Gewurztraminer in the Other White variety.

»»» TABLE 6: MARLBOROUGH VINEYARD MODEL FORECAST PRODUCTION AND INCOME DETAILS FOR 2009/10

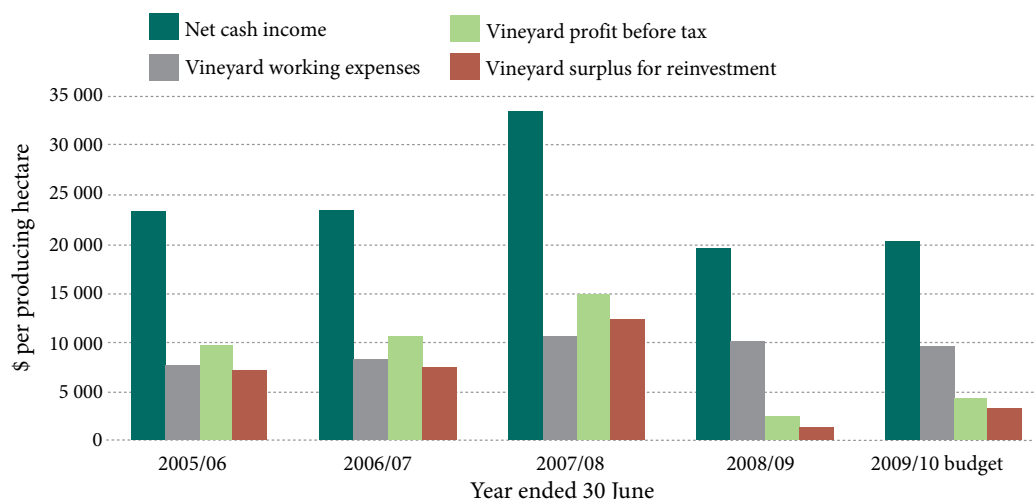
YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN (\$/T)	REVENUE (\$)
Sauvignon Blanc	21.5	11.8	253.7	76	21.9	1 696	430 300
Pinot Noir – table	3.0	7.1	21.3	6	23.9	3 055	65 100
Pinot Gris ¹	1.5	7.5	11.3	3	23.4	2 025	22 800
Chardonnay – Mendoza and Clone 15	1.5	10.9	16.4	5	22.9	1 920	31 400
Chardonnay – All other clones	1.2	12.2	14.6	4	22.5	1 700	24 900
Riesling	1.0	11.5	11.5	3	21.7	1 788	20 600
Pinot Noir – sparkling	0.3	14.1	4.2	1	20.5	1 400	5 900
Total/average	30.0	11.1	333	100		1 805	601 000

Notes

Figures may not add to totals due to rounding.

¹ Prior to 2008/09 Pinot Gris was included with Gewurztraminer in the Other White variety.

»»» FIGURE 1: MARLBOROUGH VINEYARD MODEL PROFITABILITY TRENDS



HAWKES BAY VINEYARD MODEL

FINANCIAL PERFORMANCE OF THE HAWKES BAY VINEYARD MODEL IN 2008/09

The Hawkes Bay vineyard model achieved a modest profit before tax of \$3600 in 2008/09, recovering from a loss in the previous year. This result reflects an increase in yield of 35 percent or 2.4 tonnes per hectare as vineyards recovered from the frosts of spring 2007. However this yield increase is countered by a fall in the price of grapes of \$185 per tonne due to reduced demand from wineries.

Over half of the monitored growers had previously indicated plans for significant vineyard redevelopment during 2008/09. However, with reduced grape demand very little development work was undertaken in winter/spring 2008. The model reflects the removal of 0.2 hectares of Cabernet Sauvignon and replanting with Pinot Gris. Young plantings (0.2 hectares) of Sauvignon Blanc came into full production for the 2009 vintage, retaining a producing area of 9.6 hectares.

REVENUE UP SIGNIFICANTLY ON THE PREVIOUS SEASON

Revenue in the Hawkes Bay model in 2008/09 was \$139 400, up 21 percent compared with the previous year. This was due to increased yields from excellent growing conditions, particularly during flowering and fruit set.

Prices were budgeted to remain similar between 2007/08 and 2008/09; however prices for all white grape varieties declined. Sauvignon Blanc prices experienced the largest decrease of \$325 per tonne. Rain forced an early harvest of Sauvignon Blanc resulting in target Brix levels not being met on several monitored blocks. This, combined with a general decrease in demand for Sauvignon Blanc, is reflected in the price paid. The quality of most red varieties, especially Merlot, was exceptional. However, prices remaining static did not reflect this (refer to Table 7 for price information).

»» TABLE 7: HAWKES BAY VINEYARD MODEL GRAPE PRICES

YEAR ENDED 30 JUNE	2005/06 (\$/T)	2006/07 (\$/T)	2007/08 (\$/T)	2008/09 (\$/T)	2009/10 BUDGET (\$/T)
Merlot	1 694	1 852	1 800	1 800	1 800
Chardonnay – Mendoza and Clone 15	1 683	1 693	1 750	1 550	1 500
Other red ¹	1 857	2 075	2 040	2 000	2 000
Sauvignon Blanc	1 672	1 660	1 800	1 475	1 475
Chardonnay – All other clones	1 544	1 362	1 700	1 500	1 500
Pinot Noir – sparkling	904	875	900	910	900
Pinot Gris	...	1 819	1 900	1 700	1 700
Syrah	2 132	2 240	2 250	2 000	2 000
Other white	1 064	1 075	1 530	1 430	1 400
Weighted average	1 569	1 625	1 749	1 565	1 575

Note

¹ Other red includes Cabernet Sauvignon from 2007/08 onwards

Symbol

.. Not applicable.

EXPENDITURE KEPT UNDER CONTROL

Vineyard working expenses were retained at about \$9500 per producing hectare. Tight control of overhead expenses compensated for increases in labour and other vineyard working expenses.

The unplanned cost of removing crop due to higher than expected yields and disease-affected fruit increased expenditure on crop load management. Growers experienced increases across most working expenses but especially fertiliser, fuel and machine harvesting. Fertiliser and fuel increased 39 and 11 percent respectively, due to higher input prices. The increased use of biological fertiliser products also contributed to the higher fertiliser expenditure. Machine harvesting was up 11 percent or about \$89 per hectare due to a combination of higher input prices and hand harvested Cabernet Sauvignon being replaced by machine harvested Sauvignon Blanc.

No tax was payable in 2008/09 due to a loss being made the previous year.

The model invested in frost protection with the purchase of a frost fan to protect future income. With insufficient funds available from vineyard income, this capital purchase was funded from new borrowing. Spending on development was supported by introduced funds.

Owner's drawings declined slightly due to less available funds from the 2007/08 season.

The vineyard model shows a decline in property value of 10 percent when compared with 2007/08. This reflects the market correction in property values in the Hawkes Bay region since 2007, including lifestyle properties. The Hawkes Bay vineyard model represents a predominately mature and established vineyard with a lifestyle component. Equity level remains high for the model vineyard at 80 percent.



BUDGET FINANCIAL PERFORMANCE OF THE HAWKES BAY VINEYARD MODEL IN 2009/10

The Hawkes Bay model is expected to achieve a small profit before tax of \$11 700 in 2009/10. This budget is based on the assumption that all grape varieties will be sold to wineries.

With little scope to increase yield or price received for their grapes, growers are not planning any redevelopment and are aiming to improve production efficiencies to reduce costs and maintain a small cash surplus for reinvestment. Growers will continue to rely on off-vineyard income sources to remain viable.

REVENUE EXPECTED TO HOLD

The expectation is for grape yield and prices to remain mostly unchanged for the 2009/10 season. The redevelopment completed in winter/spring 2006 will increase production slightly, lifting revenue to \$140 400 in 2009/10.

PRICES EXPECTED TO HOLD STEADY

Growers expect prices paid per tonne in 2009/10 to remain stable for most varieties averaging \$1575 per tonne, up slightly on the previous year. Sauvignon Blanc and Pinot Gris are expected to remain stable against falling demand, if quality parameters (primarily brix) are achieved.

Growers expect little or no variation in the prices for red varieties, as yields for these varieties are generally well controlled in the region, with production focused on premium wines.

YIELDS EXPECTED TO HOLD STEADY

Growers are not budgeting on an increase in harvested yield, with expectations that wineries will continue to impose yield restrictions to manage grape supply against weaker market demand. On average, per hectare yields are predicted to remain the same as the previous year. However, growers are budgeting on an increase in Sauvignon Blanc and Pinot Gris yields as recent new plantings increase production. A return to a more usual weather pattern is reflected in the reduced yield expectations for Merlot, and Pinot Noir for sparkling wine.

EXPENDITURE EXPECTED TO DECLINE IN 2009/10

Vineyard working expenses for the Hawkes Bay model are expected to decline by 3 percent overall or about \$500 per hectare in 2009/10. This reflects growers' intentions to seek cost efficiencies where possible in the face of increasing uncertainty around grape demand.

Growers are seeking to reduce direct labour input costs associated with crop load management. They are doing this by using alternative pruning techniques and irrigation to control crop load. The option to directly employ pruners and avoid contractor's commission charges is a consideration for some growers, particularly with local labour increasingly available due to rising unemployment.

The greatest savings are expected to be made in expenditure on pruning, crop load management, fertiliser, fuel and contract machinery work. Expenditure on repairs and maintenance is also expected to be reduced.

The drop in interest rates gives growers some reprieve. No capital or development expenditure is planned and growers will be unable to make any principal repayments in 2009/10. However, they are confident that the value of their businesses should remain relatively stable, due to the increased productive area and recent capital expenditure on frost protection.

PROFITABILITY TRENDS FOR THE HAWKES BAY VINEYARD MODEL

With income limited by stagnant or decreasing grape prices and caps on yields, the profitability of the Hawkes Bay vineyard model is challenged in the short-term. Off-vineyard income and investments will be relied upon to meet living expenses, and service or pay off debt.

Some growers with a smaller or similar vineyard size to the model would like to expand their businesses to increase revenue and gain economies of scale. However, the high price of land in the Hawkes Bay region and banks' strict lending criteria in the current economic climate makes this an unlikely proposition for most.

If demand for grapes shrinks considerably over the next few years, the contract grape growing base in Hawkes Bay would rationalise leaving fewer, but larger growers. Poorer performing vineyards would likely be transferred into other land uses.



»»» TABLE 8: HAWKES BAY VINEYARD MODEL BUDGET

	2008/09				2009/10 BUDGET				CHANGE
	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER Tonne GROSS (\$)	PER VINE (\$)	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER Tonne GROSS (\$)	PER VINE (\$)	BETWEEN 2008/09 AND 2009/10 (%)
REVENUE									
Income from grapes	139 400	14 517	1 566	6.29	140 400	14 331	1 574	6.34	1
Other vineyard income	0	0	0	0.00	0	0	0	0.00	..
Net cash income	139 400	14 517	1 566	6.29	140 400	14 331	1 574	6.34	1
Vineyard working expenses	90 800	9 461	1 021	4.10	87 700	8 951	983	3.96	-3
Cash operating surplus	48 600	5 055	545	2.19	52 700	5 380	591	2.38	9
Interest	23 000	2 396	258	1.04	22 000	2 245	247	0.99	-4
Rent and/or leases	0	0	0	0.00	0	0	0	0.00	..
Depreciation	23 000	2 396	258	1.04	20 000	2 041	224	0.90	-13
Net non-fruit cash income	1 000	104	11	0.05	1 000	102	11	0.05	0
Vineyard profit before tax	3 600	368	40	0.16	11 700	1 196	131	0.53	232
Tax	0	0	0	0.00	900	92	10	0.04	0
Vineyard profit after tax	3 600	368	40	0.16	10 800	1 104	121	0.49	206
Add back depreciation	23 000	2 396	258	1.04	20 000	2 041	224	0.90	-13
Off-vineyard cash income	48 000	5 000	539	2.17	48 000	4 898	538	2.17	0
Discretionary cash	74 600	7 764	837	3.37	78 800	8 043	884	3.56	6
APPLIED TO:									
Net capital purchases	50 000	5 208	562	2.26	0	0	0	0.00	..
Development	8 000	833	90	0.36	0	0	0	0.00	..
Drawings	25 000	2 604	281	1.13	20 000	2 041	224	0.90	-20
Principal repayments	0	0	0	0.00	0	0	0	0.00	..
New borrowings	50 000	5 208	562	2.26	0	0	0	0.00	..
Introduced funds	8 000	833	90	0.36	0	0	0	0.00	..
Cash surplus/deficit	49 600	5 160	557	2.24	58 800	6 002	659	2.66	19
Vineyard surplus for reinvestment¹	1 600	160	17	0.07	10 800	1 104	121	0.49	606
ASSETS AND LIABILITIES									
Land and building (opening)	1 480 000	154 167	16 629	66.85	1 480 000	151 020	16 592	66.85	0
Plant and machinery (opening)	72 600	7 563	816	3.28	105 000	10 714	1 177	4.74	45
Vineyard related investments (opening)	0	0	0	0.00	0	0	0	0.00	..
Total vineyard assets (opening)	1 552 600	161 729	17 445	70.13	1 585 000	161 735	17 769	71.59	2
Total vineyard liabilities (opening)	285 000	29 688	3 202	12.87	335 000	34 184	3 756	15.13	18
Total vineyard equity	1 267 600	132 042	14 243	57.25	1 250 000	127 551	14 013	56.46	-1

Notes

Figures may not add to totals due to rounding.

¹ Vineyard surplus for reinvestment is calculated as follows: discretionary cash less off-vineyard income and drawings.**Symbol**

.. Not applicable.



»»» TABLE 9: HAWKES BAY VINEYARD MODEL EXPENDITURE

	2008/09				2009/10 BUDGET				CHANGE BETWEEN 2008/09 AND 2009/10 (%)
	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER TONNE GROSS (\$)	PER VINE (\$)	WHOLE VINEYARD (\$)	PER PRODUCING HA (\$)	PER TONNE GROSS (\$)	PER VINE (\$)	
VINEYARD WORKING EXPENSES									
Hand harvesting	600	66	7	0.03	700	67	7	0.03	5
Pruning (and tying down)	14 100	1 464	158	0.63	13 500	1 378	151	0.61	-4
Canopy/crop load management	12 500	1 302	140	0.56	11 200	1 148	126	0.51	-10
Other wages	10 000	1 042	112	0.45	9 800	1 000	110	0.44	-2
ACC – employees	200	20	2	0.01	200	19	2	0.01	0
Total labour expenses	37 400	3 893	420	1.69	35 400	3 612	397	1.60	-5
Weed and pest control	10 200	1 063	115	0.46	10 500	1 071	118	0.47	3
Fertiliser and lime	1 500	156	17	0.07	1 300	133	15	0.06	-13
Electricity	2 600	271	29	0.12	2 600	265	29	0.12	0
Vehicle	2 100	219	24	0.09	2 300	235	26	0.10	10
Fuel	3 900	406	44	0.18	3 300	339	37	0.15	-15
Repairs and maintenance	6 200	646	70	0.28	5 800	592	65	0.26	-6
General	2 000	208	22	0.09	2 000	204	22	0.09	0
Frost protection	2 100	224	24	0.10	2 000	204	22	0.09	-7
Contract machinery work	2 700	281	30	0.12	1 500	153	17	0.07	-44
Machine harvesting	8 000	829	89	0.36	8 400	857	94	0.38	6
Total other working expenses	41 300	4 303	464	1.87	39 700	4 053	445	1.79	-4
Rates	2 700	286	31	0.12	2 800	286	31	0.13	2
Water rates	0	0	0	0.00	0	0	0	0.00	..
General insurance	3 200	333	36	0.14	3 200	327	36	0.14	0
Crop insurance	0	0	0	0.00	0	0	0	0.00	..
ACC – owners	0	0	0	0.00	0	0	0	0.00	..
Communication	1 800	188	20	0.08	1 800	184	20	0.08	0
Accountancy	2 200	229	25	0.10	2 200	224	25	0.10	0
Legal and consultancy	0	0	0	0.00	400	41	4	0.02	0
Levies and subscriptions	1 000	104	11	0.05	1 000	102	11	0.05	0
Other administration	1 200	125	13	0.05	1 200	122	13	0.05	0
Total overhead expenses	12 100	1 266	137	0.55	12 600	1 286	141	0.57	4
Total vineyard working expenses	90 800	9 461	1 021	4.10	87 700	8 951	983	3.96	-3
Wages of management	46 500	4 846	523	2.10	46 900	4 781	525	2.12	1
Depreciation	23 000	2 396	258	1.04	20 000	2 041	224	0.90	-13
Total vineyard operating expenses	160 300	16 704	1 802	7.24	154 600	15 772	1 733	6.98	-4
CALCULATED RATIOS									
Economic vineyard surplus (EVS) ¹	-21 000	-2 187	-236	-0.95	-14 100	-1 442	-158	-0.64	
Vineyard working expenditure/NCI ²	65%				62%				
EVS/Total vineyard assets	-1%				-1%				
EVS less interest & lease/equity	-3%				-3%				
Interest+rent+lease/NCI	17%				16%				
EVS/NCI	-15%				-10%				
Notes									

Notes

Figures may not add to totals due to rounding.

1 EVS (or earnings before interest and tax) is calculated as follows: net cash income less vineyard 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 vineyard assets to a maximum of \$75 000.

2 Net cash income.

Symbol

.. Not applicable.

»»» TABLE 10: HAWKES BAY VINEYARD MODEL PRODUCTION AND INCOME DETAILS FOR 2008/09

YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN (\$/T)	REVENUE (\$)
Merlot	2.4	10.0	24.0	27	24.0	1 800	43 200
Chardonnay – Mendoza and Clone 15	1.6	8.5	13.6	15	22.8	1 550	21 100
Other red (includes Cabernet Sauvignon)	1.3	6.0	7.8	9	..	2 000	15 600
Sauvignon Blanc	1.6	9.5	15.2	17	20.5	1 475	22 500
Chardonnay – all other clones	0.7	10.0	7.0	8	22.0	1 500	10 500
Pinot Noir – sparkling	0.7	17.5	12.3	14	19.0	910	11 200
Pinot Gris	0.6	7.5	4.5	5	22.5	1 700	7 600
Syrah	0.4	5.0	1.9	2	23.0	2 000	3 800
Other white	0.3	9.0	2.7	3	..	1 430	3 900
Total/average	9.6	9.3	89	100	..	1 565	139 400

Note

Figures may not add to totals due to rounding.

Symbol

.. Not applicable.

»»» TABLE 11: HAWKES BAY VINEYARD MODEL BUDGET PRODUCTION AND INCOME DETAILS FOR 2009/10

YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN (\$/T)	REVENUE (\$)
Merlot	2.4	9.0	21.6	24	23.0	1 800	38 900
Chardonnay – Mendoza and Clone 15	1.6	9.5	15.2	17	22.8	1 500	22 800
Other red (includes Cabernet Sauvignon)	1.3	6.5	8.5	9	..	2 000	16 900
Sauvignon Blanc	1.6	10.0	16.0	18	20.5	1 475	23 500
Chardonnay – all other clones	0.7	9.5	6.6	7	22.0	1 500	9 900
Pinot Noir – sparkling	0.7	14.0	9.7	11	18.5	900	8 800
Pinot Gris	0.8	8.5	6.7	8	22.5	1 700	11 500
Syrah	0.4	5.5	2.2	2	23.0	2 000	4 400
Other white	0.3	9.0	2.6	3	..	1 400	3 700
Total/average	9.8	9.1	89	100	..	1 575	140 400

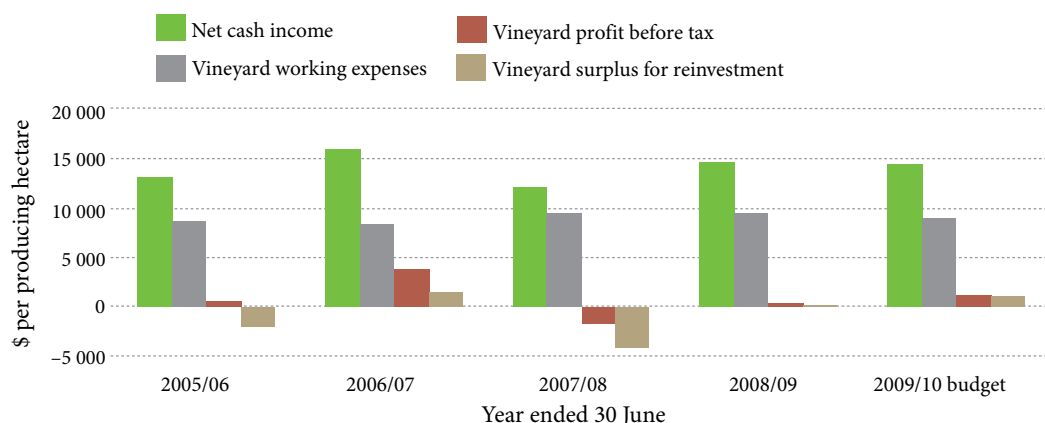
Note

Figures may not add to totals due to rounding.

Symbol

.. Not applicable.

»»» FIGURE 2: HAWKES BAY VINEYARD MODEL PROFITABILITY TRENDS



INDUSTRY ISSUES AND DEVELOPMENTS

GROWER MORALE AND BUSINESS VIABILITY PLANS

Growers in both Marlborough and Hawkes Bay believe they are facing uncertain times, especially in the short term. Confidence levels in Marlborough have dropped from previous years, with growers expressing concern about grape prices and managing yield restrictions. Hawkes Bay growers are also facing reduced demand for their grapes.

A carryover of wine from the record 2008 vintage in Marlborough led to most wineries introducing or enforcing a yield cap in 2009. This carryover is the inevitable outcome of large scale plantings of Sauvignon Blanc vines in the Marlborough region over the last six years. The planted area of grapes increased by 17 200 hectares between 2003 and 2008, or an average of 2860 hectares per year culminating in about 23 600 planted hectares for the 2009 vintage.

A combination of the yield cap and inadequate communication between wineries and growers has strained some relationships over the past year. Many growers were frustrated that disease prevalence in addition to the extra crop management required by winery contracts, led to yields below those targets set in their contracts. Although Marlborough growers were also disappointed with the drop in prices, most considered this was inevitable and were hopeful that prices will improve in 2010. Most Marlborough growers expressed the view that winegrowing remains a viable industry and several monitored growers said they would consider expanding should a suitable opportunity arise.

Hawkes Bay growers believe that managing costs and efficient work practices are the key to surviving this period of uncertainty. Sauvignon Blanc and Pinot Noir for sparkling wine in particular were seen as problematic varieties, as wineries sought to satisfy their requirements for these varieties with fruit from Marlborough. Some growers in Hawkes Bay considered expansion as a method to increase revenue and promote efficiencies while others were using any cash surpluses or asset sales to reduce debt to assist business viability and security.

GROWER RESPONSE TO INPUT PRICE CHANGES AND SHORTAGES

In response to lower returns, growers in both regions are actively seeking ways to reduce costs. Most growers said they were focussing on increasing labour productivity, which is seen as essential for the long term survival of their business. Growers are aiming to reduce costs through negotiating better rates with their contractors and using directly employed staff more efficiently. Mechanisation is being explored as a way to free up labour for other, more productive work.

Growers are unable to increase production per hectare to reduce unit costs due to yield constraints. Some growers said they would consider expansion to reduce unit costs if this could be matched to supply contracts with wineries, especially given the current low interest rates.

LABOUR

The Recognised Seasonal Employer (RSE) scheme has been credited with ensuring timely availability of staff, and growers were generally positive about the scheme. However, at the same time there were conflicting views among growers concerning the cost of labour.

Many growers considered that the RSE scheme and the increased labour supply in general were leading to cost and time efficiencies with contractors, and reducing their



labour expenses overall. Other growers, however, did not perceive obvious improvements in labour efficiencies, noting that contractors were passing on all of the increased costs associated with the RSE scheme.

ENVIRONMENTAL AND RESOURCE MANAGEMENT

In line with the recent developments in the wine industry, several growers are now complying members of Sustainable Winegrowing New Zealand (SWNZ), while most others have recently joined or are planning to join in the near future. All growers are aware of issues around sustainability and many have implemented various techniques in their production methods.

Some growers are using multi-tasking machinery to reduce the amount of passes through the vineyard. This has additional benefits of reducing fuel costs as well as reducing soil compaction.

To increase biodiversity some growers have planted native trees on their property. Growers in both regions consider reducing inputs of water, sprays and fertiliser through more effective monitoring to be beneficial from both an environmental and financial perspective.

INFORMATION ABOUT THE MODELS

The two vineyard models represent the two predominant grape-growing regions in New Zealand of Marlborough and Hawkes Bay. These two regions accounted for 83 percent of the grape harvest in New Zealand in 2009. The models are based primarily on owner-operated businesses where the main source of income is derived from grape growing. Smaller lifestyle properties and larger corporate businesses are excluded from the monitoring programme.

The aim of the model is to typify an average vineyard for the region. Budget figures are averaged from the contributing vineyards and adjusted to represent real vineyards. Income figures include income from grapes, off-vineyard income, new borrowing and other cash income. Expenditure figures allow for vineyard production costs, debt servicing, leasing, drawings, development, and capital purchases.

Financial data in the viticulture models relates to a year end of 30 June.

MARLBOROUGH VINEYARD MODEL

The Marlborough model draws on data from 18 vineyards that are mostly located in the Wairau Valley, while three are situated in the Awatere Valley. Sauvignon Blanc is the dominant grape variety in the model vineyard, followed by Pinot Noir, Chardonnay and Pinot Gris.

HAWKES BAY VINEYARD MODEL

The Hawkes Bay model is based on data from 15 vineyards that are spread from the coast through to the Gimblett Gravels. Merlot is the dominant grape variety, followed by Chardonnay and Sauvignon Blanc. To better align with market demand some Cabernet Sauvignon vines have been replaced with Pinot Gris and some young plantings of Sauvignon Blanc came into full production in the 2008/09 financial year.

For more information on the models contact Nick.Dalgaty@maf.govt.nz

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