HORTICULTURE AND ARABLE MONITORING 2010

VITICULTURE

THIS REPORT CONTAINS THE KEY RESULTS FROM THE MINISTRY OF AGRICULTURE AND FORESTRY'S 2010 VINEYARD MONITORING PROGRAMME.

KEY POINTS

- Growers in Marlborough trimmed yields by 4 percent in 2009/10 in response to wineries imposing yield caps. Cool weather and a significant rain event at flowering in Hawke's Bay meant yields were down 18 percent on the previous year.
- The price for Marlborough Sauvignon Blanc fell 20 percent to $1345 per tonne in 2009/10. Hawke's Bay growers experienced a fall of 14 percent in their average grape price to $1350 per tonne. Premium varietals such as Merlot and Syrah have shown greater price resilience over this period.
- The continuation of capped yields and reduced prices for Marlborough grapes has seen the vineyard model record a 48 percent drop in profit before tax to $55 700 in 2009/10. This outcome was mitigated by efforts to constrain vineyard working expenses. The Hawke's Bay model reported a before tax loss of $28 100 as growers weathered the impact of a reduction in both yield and price paid per tonne.
- Marlborough growers are budgeting for small increases in contracted yield caps and prices paid per tonne in 2010/11. Hawke's Bay growers expect grape yields to return to average levels and those with supply contracts budget to break even or make a small profit next season.
- A return to sustainable profits is a critical focus not just for growers but also for wineries. Growers expect tight controls on grape supply to continue over the next two to three years as wineries work hard to safeguard current international markets and secure new ones.

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

YEAR ENDED 30 JUNE	2006/07	2007/08	2008/09[1]	2009/10	2010/11 BUDGET
MARLBOROUGH MODEL					
Planted area (ha)	29.0	29.0	31.0	31.0	31.0
Producing area (ha)	25.0	27.0	29.0	30.0	30.0
Total production[2] (t)	248	368	296	285	310
Average return ($/t)	2 311	2 445	1 797	1 465	1 545
Net cash income ($)	587 300	907 300	531 485	417 680	479 495
Vineyard working expenses ($)	207 900	288 600	293 015	257 550	251 190
Vineyard profit before tax ($)	267 800	404 200	108 070	55 730	127 405
Vineyard surplus for reinvestment[3] ($)	186 500	334 700	85 370	54 530	126 405
HAWKE'S BAY MODEL					
Planted area (ha)	10.0	10.0	10.0	10.0	10.0
Producing area (ha)	9.6	9.6	9.6	9.8	10.0
Total production (t)	93	66	89	73	94
Average return ($/t)	1 625	1 750	1 565	1 350	1 375
Net cash income ($)	152 100	115 400	139 400	98 965	129 070
Vineyard working expenses ($)	80 300	90 700	90 800	82 320	82 990
Vineyard profit before tax ($)	36 600	–16 400	3 600	–28 055	4 180
Vineyard surplus for reinvestment ($)	13 900	–39 500	1 600	–6 855	22 680

Notes

1 Data from 2008/09 onwards for the Marlborough model has been adjusted based on weighted average (vs. average) values so comparisons can be made with 2009/10 and 20010/11 data.

2 Grapes are harvested in the autumn, so the 2009/10 year refers to fruit harvested in autumn 2010.

3 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.

Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

MARLBOROUGH VINEYARD MODEL

FINANCIAL PERFORMANCE OF THE MARLBOROUGH VINEYARD MODEL IN 2009/10

The Marlborough vineyard model achieved a net trading profit before tax of $55 700 in 2009/10, down by $52 400 on the previous year. This significant reduction in profit arose from grape supply continuing to exceed market demand, which forced wineries to restrict yields and reduce prices paid per tonne.

The Marlborough vineyard model increased from 29 to 30 producing hectares as some residual planted area came into production. The predominant variety remains Sauvignon Blanc whilst minor changes are noted in the variety mix.

REVENUE DROPS AS YIELD CAPS CONTINUE AND PRICES SLIDE

Revenue for the Marlborough model in 2009/10 was $417 700 or $13 923 per producing hectare, which is 21 percent down on the previous year. This was due primarily to winery imposed yield caps holding average yields at 9.5 tonnes per hectare and the average price for grapes sliding further to $1465 per tonne. Growers managed this decreased revenue through some judicious cuts in vineyard expenditure.

CLIMATE PROVIDES LONG GROWING SEASON AND DRY HARVEST PERIOD

The 2009/10 season was characterised by a late start but generally good growing conditions. Spring rainfall ensured irrigation was not a limiting factor at the beginning of the season. Growing degree days (GDD) in September and October were significantly behind both the previous season and the long-term average. This led to very slow shoot development during October, and delayed flowering by about a week. Despite the requirement for some frost fighting in October, frost did not cause any damage in Marlborough vineyards in 2009/10.

Rainfall during November to April was only 48 percent of the long-term average and this led to higher levels of irrigation; 50 percent higher than in 2008/09 and 20 percent up on the long-term average. The

TABLE 2: MARLBOROUGH WEATHER DATA

	RAINFALL (mm)			GROWING DEGREE DAYS[1] (GDD)		
MONTH	2008/09	2009/10	AVERAGE	2008/09	2009/10	AVERAGE
June	25	52	65	20	6	17
July	153	51	66	9	6	8
August	131	82	59	12	41	15
September	76	50	55	61	44	50
October	73	115	62	99	54	97
November	54	32	57	150	146	136
December	76	20	49	209	222	207
January	10	41	46	253	262	249
February	98	6	51	209	224	219
March	10	33	42	174	206	184
April	56	7	42	104	146	104
May	33	167	52	19	53	51
Total	**796**	**657**	**646**	**1319**	**1410**	**1338**

Note
1 GDD – growing degree days. GDDs are calculated by taking the average of the daily high and low temperatures each day compared with a baseline (usually 10 degrees centigrade). They help to predict the date that a flower will bloom or a crop reach maturity.

Source
NIWA (Blenheim).

low rainfall was particularly helpful in limiting disease pressure and growers were able to reduce flowering fungicide applications and minimise or eliminate late season applications.

GDD were above average and more than 2008/09 for each of the months from December to April. While this was very good for flowering and fruit development, the total GDD for the season was only just above the long-term average and harvest generally commenced slightly later than 2008/09.

GROWERS CONSTRAIN YIELDS IN LINE WITH WINERY REQUIREMENTS

Total production in 2009/10 for the Marlborough vineyard model decreased to 285 tonnes, down 4 percent on the previous year, despite the increase in producing area from 29 to 30 hectares. Average yields per hectare for the model decreased to 9.5 tonnes per producing hectare with Sauvignon Blanc yield at 10.4 tonnes per hectare. All monitored growers had their Sauvignon Blanc maximum yield per hectare limited by their winery supply contracts with yield caps typically between 10 and 12 tonnes. Other grape varieties were also limited by yield caps this season.

Growers altered their management practices in line with winery and industry representative advice that a surplus of wine still existed following the 2009 crop. Growers achieved lower yields through pruning, laying a reduced number of canes, and shoot thinning on some varieties, primarily Pinot Noir. While some fruit thinning also occurred, this was minimal. A very cool spring appears to have delayed harvest by about a week but does not appear to have been a reason for reduced yields.

PRICES TUMBLE FOR SECOND YEAR IN A ROW

In 2009 the monitored growers expected prices to stabilise for the 2009/10 year. However, the ongoing global recession and national surplus of wine meant grape prices fell, resulting in an 18 percent drop to $1465 per tonne in the model. Over the last two years the average grape price for the model has dropped by 40 percent or $980 per tonne. Almost all monitored growers held a supply contract for the 2010 crop.

Sauvignon Blanc was the variety most affected by surplus stocks of wine and in the model this variety experienced a 20 percent drop in price to $1345 per tonne. Prices for Sauvignon Blanc within the monitored group varied between $720 and $1900 per tonne.

The Pinot Noir price for the model was $3150 per tonne, which remained similar to the previous year as wineries still had good demand for this variety. Growers expect this variety to maintain prices and experience less price volatility than Sauvignon Blanc.

Pinot Gris suffered the largest drop in price of any variety, falling 24 percent to $1640 per tonne in 2010. This was due to an increase in supply of this variety throughout the Marlborough region as young vines reached maturity. Growers are increasingly wary of planting any more of this variety due to their recent experience with Sauvignon Blanc.

2010 VINTAGE SAID TO BE ONE OF THE BEST IN YEARS

Growers, winemakers and wine writers are reporting the 2010 Marlborough vintage as one of the best in years, if not decades. Lower yields combined with a long growing season and a dry harvest period allowed fruit to be picked at optimum ripeness and flavours.

GROWERS KEEP TIGHT REIN ON EXPENDITURE

Monitored growers responded to the challenging economic conditions in 2009/10 by reducing vineyard working expenses with the model reducing expenditure by 12 percent to $8585 per hectare.

Labour expenses declined 13 percent to $145 400 as growers laid less canes. Some growers increased mechanisation through use of stripping machines while mainly smaller growers reduced 'other wages' by completing more of the jobs themselves. Stripping machines are being used to mechanically remove the previous season's unwanted canes. They were used by approximately a third of the monitored growers and many are planning to use them next season as a way of reducing costs.

Weed and pest control expenses declined 16 percent to $20 400. This was primarily due to the very dry post-Christmas period allowing reduced fungicide use. Fertiliser and lime expenses declined 56 percent within the group with a few growers electing not to apply any fertiliser at all. Many growers expect vines will experience no adverse effects if fertiliser is reduced or even withdrawn for one season, particularly if soil reserves are adequate.

The largest increases in expenditure were for electricity and frost protection. Irrigation volume increased around 50 percent from 2008/09 due to a sustained dry period from January to April 2010, which pushed up associated electricity expenses. Frost protection was up from $72 to $141 per producing hectare as growers took action against an increased number of frost events.

LEAN PROFITS LEAVE LITTLE AVAILABLE FOR DEVELOPMENT AND CAPITAL EXPENDITURE

Vineyard operating surplus in 2009/10 was $160 100, down 33 percent on the previous year. Reduced yield per hectare and price per tonne were the major contributing factors.

Vineyard profit before tax reduced to $55 700 in 2009/10. The monitored growers have made low or no income tax payments, which is in line with the reduced vineyard profit before tax. It indicates that growers predicted these lower returns early and adjusted provisional tax repayments accordingly. The vineyard profit after tax on the model was $43 700.

Development and capital purchases halved in 2009/10 compared with the previous year to a combined total of $31 000. No new plantings were undertaken by the monitored growers and all except essential capital expenditure was deferred. Owners' drawings more than halved to $37 200 in line with the tight economic environment and no principal repayments were made.

Of increasing concern to growers is their cash position. Grower income is all recorded in the year the crop is harvested. A growing trend is for wineries to spread the timing of grape payments, some as late as

TABLE 3: MARLBOROUGH VINEYARD MODEL GRAPE PRICES

YEAR ENDED 30 JUNE	2006/07 ($/T)	2007/08 ($/T)	2008/09 ($/T)	2009/10 ($/T)	2010/11 BUDGET ($/T)
GRAPE VARIETY					
Sauvignon Blanc	2 355	2 435	1 687	1 345	1 435
Pinot Noir - table	3 037	3 277	3 178	3 150	3 160
Pinot Gris	2 311	2 649	2 155	1 640	1 535
Chardonnay - Mendoza and clone 15	2 069	2 133	1 807	1 805	1 825
Chardonnay - all other clones	2 057	2 146	1 672	1 440	1 420
Riesling	1 892	1 830	1 663	1 635	1 565
Pinot Noir - sparkling[1]	1 226	1 800	1 400	...	...
Weighted average	**2 311**	**2 445**	**1 797**	**1 465**	**1 545**

Note
1 Pinot Noir Sparkling was removed from the variety mix in 2009/10 as the producing area is no longer significant.

Symbol
... Not applicable.

December of the year in which the fruit is harvested. Growers are working with their bank managers to fully understand the cashflow implications for their business.

Growers and industry commentators in the Marlborough region report a drop in vineyard values over the 2008/09 season. As such the model reflects a drop in the value of land and buildings of 24 percent to $5.49 million in the year to July 2009; $183 000 per planted hectare. No further decreases in the value of land and buildings were reported over the 2009/10 season. There were three vineyard sales in January 2010 with two selling for between $150 000 to 170 000 per planted hectare. One property sold for $220 000 per planted hectare although it was reported to have an above-average house and subdivision potential.

BUDGET FINANCIAL PERFORMANCE OF THE MARLBOROUGH VINEYARD MODEL IN 2010/11

The model's net cash income is expected to improve by 15 percent in 2010/11 to $479 500, while vineyard expenditure is expected to remain steady. Consequently, the vineyard's profit before tax is predicted to rise from $55 700 to $127 400 in 2010/11.

GROWERS EXPECT REVENUE TO IMPROVE AS SUPPLY STABILISES

Monitored growers are expecting small improvements in yield and price parameters to be negotiated with wineries in 2010/11, especially for the predominant variety Sauvignon Blanc. Such expectations are based on industry achieving some supply-side stability following the record vintage of 2008.

GROWERS TARGET YIELDS AT OR SLIGHTLY ABOVE YIELD CAPS FOR 2010/11

Average yields are predicted to increase 8 percent in 2010/11 or by about 0.8 tonne per hectare. The producing area of the model is expected to remain at 30 hectares with total production budgeted to reach 310 tonnes. Growers forecast Sauvignon Blanc to average 11.1 tonnes per hectare in 2010/11, up from 10.4 tonnes per producing hectare in 2009/10. To achieve this growers are mainly targeting three canes and then do little or no shoot or fruit thinning.

With other varieties, growers are also using pruning as their main tool for achieving their yield caps but also plan to shoot-thin Pinot Noir. Crop thinning and irrigation management are likely to be used if fruit set is especially high and wineries again signal they are unable to take any surplus fruit.

Growers would prefer to target yields just above the yield cap to be sure they get the target yield and leave excess fruit unharvested or drop it to the ground. This is because none of their expenses are significantly affected by yield.

WILL THE CORRECTION IN 2010 VINTAGE LEAD TO A LIFT IN 2011 SAUVIGNON BLANC PRICES?

Growers expect the average price for all varieties to increase in 2010/11 to $1545 per tonne compared with $1465 in 2009/10; an increase of 6 percent. They are optimistic that the 5 percent reduction in Marlborough's vintage in 2010 to 182 700 tonnes could initiate some upwards movement in price. The price paid per tonne for Sauvignon Blanc is budgeted to increase by 7 percent, from $1345 to $1435 per tonne.

At the time of the survey in May 2010 some growers held no contract for their 2011 crop. They are hopeful they will be able to negotiate a supply contract with new wineries, with a few planning to take a chance on the spot market.

FRUGAL APPROACH BEING TAKEN BY GROWERS TO EXPENDITURE

Monitored growers in the survey group are expecting vineyard working expenses to drop slightly in 2010/11 with working expenses for the model budgeted to be $8373 per hectare, down 2 percent on last year. Increases are expected in weed and pest control with a return to average climatic conditions. Fertiliser expenses are scheduled to increase to make up for deferred applications last season.

A budgeted 5 percent drop is made for labour expenses to $138 500, primarily due to increased use of stripping machines for pruning but also less canopy management and hand picking. Growers say that they are still evaluating the exact economic benefits of stripping machines and were typically conservative when estimating cost reductions.

The model shows a budgeted decline in repairs and maintenance expenditure of 34 percent for 2010/11 to $8300. Growers are still in cost cutting mode and expect to defer non-essential repairs and maintenance.

NET RESULT DEPENDS ON NEGOTIATION WITH WINERIES

Vineyard profit before tax is expected to reach $127 400 in 2010/11, more than double that of 2009/10. Minimal tax payments are budgeted and consequently the vineyard profit after tax is budgeted at $117 400.

No vineyard redevelopment is budgeted for the model in 2010/11, in stark contrast with average development expenditure of approximately $2000 per hectare over the last five years.

Grape growers in Marlborough have initiated a range of austerity measures to counter a slump in vineyard revenue. Net cash income of $33 600 per producing hectare in 2007/08 dropped to just under $14 000 per producing hectare in 2009/10. Growers are budgeting for some improvement in the 2010/11 year to $15 983 per producing hectare; negotiations with wineries later in 2010 will determine the final outcome.

Growers monitored for the Marlborough model generally possess a low debt to equity ratio. This is reflected in the model where vineyard liabilities in 2009/10 were $22 300 (12 percent) and vineyard equity $166 300 (88 percent) per producing hectare. Bankers say that those growers in the Marlborough region with much higher debt to equity ratios may find the next two to three years very challenging if the trend of tight profit margins continues.

TABLE 4: MARLBOROUGH VINEYARD MODEL 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 ($/T)	REVENUE ($)
GRAPE VARIETY[1]							
Sauvignon Blanc	22.4	10.4	233.0	82	22.3	1 345	313 330
Pinot Noir - table	3.0	4.2	12.6	4	24.0	3 150	39 690
Pinot Gris	1.5	7.2	10.8	4	23.5	1 640	17 710
Chardonnay - Mendoza and Clone 15	1.2	8.1	9.7	3	23.2	1 805	17 545
Chardonnay - All other clones	0.9	10.7	9.6	3	23.5	1 440	13 870
Riesling	1.0	9.5	9.5	3	21.9	1 635	15 535
Total/average	**30.0**	**9.5**	**285.2**	**100**		**1 465**	**417 680**

Note
1 Pinot Noir Sparkling was removed from the variety mix in 2009/10 as the producing area is no longer significant.

TABLE 5: MARLBOROUGH VINEYARD MODEL BUDGET PRODUCTION AND INCOME DETAILS FOR 2010/11

YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN ($/T)	REVENUE ($)
GRAPE VARIETY[1]							
Sauvignon Blanc	22.4	11.1	248.6	80	21.8	1 435	356 800
Pinot Noir - table	3.0	5.2	15.6	5	23.9	3 160	49 295
Pinot Gris	1.5	8.7	13.1	4	23.7	1 535	20 030
Chardonnay - Mendoza and Clone 15	1.2	10.7	12.8	4	22.8	1 825	23 435
Chardonnay - All other clones	0.9	11.3	10.2	4	23.5	1 420	14 440
Riesling	1.0	9.9	9.9	3	21.9	1 565	15 495
Total/average	**30.0**	**10.3**	**310.2**	**100**		**1 545**	**479 495**

Note
1 Pinot Noir Sparkling was removed from the variety mix in 2009/10 as the producing area is no longer significant.

FIGURE 1: MARLBOROUGH VINEYARD MODEL PROFITABILITY TRENDS

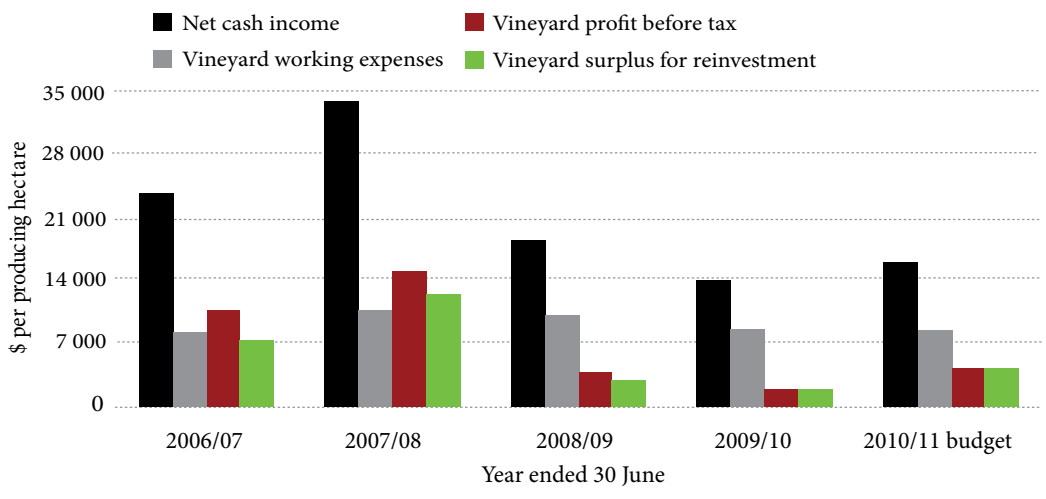


TABLE 6: MARLBOROUGH VINEYARD MODEL BUDGET

	2008/09[1]	2009/10				2010/11 BUDGET			
	WHOLE VINEYARD ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)
REVENUE									
Income from grapes	531 485	417 680	13 923	1 465	7.03	479 495	15 983	1 545	8.09
Other vineyard income	0	0	0	0	0.00	0	0	0	0.00
Net cash income	**531 485**	**417 680**	**13 923**	**1 464**	**7.03**	**479 495**	**15 983**	**1 546**	**8.09**
Vineyard working expenses	**293 015**	**257 550**	**8 585**	**903**	**4.33**	**251 190**	**8 373**	**810**	**4.24**
Cash operating surplus	**238 470**	**160 130**	**5 338**	**561**	**2.69**	**228 305**	**7 610**	**736**	**3.85**
Interest	60 400	48 900	1 630	171	0.82	48 900	1 630	158	0.82
Rent and/or leases	7 000	7 500	250	26	0.13	7 000	233	23	0.12
Depreciation	63 000	48 000	1 600	168	0.81	45 000	1 500	145	0.76
Net non-fruit cash income	0	0	0	0	0.00	0	0	0	0.00
Vineyard profit before tax	**108 070**	**55 730**	**1 858**	**195**	**0.94**	**127 405**	**4 247**	**411**	**2.15**
Tax	35 700	12 000	400	42	0.20	10 000	333	32	0.17
Vineyard profit after tax	**72 370**	**43 730**	**1 458**	**153**	**0.74**	**117 405**	**3 913**	**378**	**1.98**
Add back depreciation	63 000	48 000	1 600	168	0.81	45 000	1 500	145	0.76
Off-vineyard cash income	26 000	25 500	850	89	0.43	25 000	833	81	0.42
Discretionary cash	**161 370**	**117 230**	**3 908**	**411**	**1.97**	**187 405**	**6 247**	**604**	**3.16**
APPLIED TO:									
Net capital purchases	60 000	13 000	433	46	0.22	21 000	700	68	0.35
Development	38 000	18 000	600	63	0.30	0	0	0	0.00
Drawings	50 000	37 200	1 240	130	0.63	36 000	1 200	116	0.61
Principal repayments	60 000	0	0	0	0.00	0	0	0	0.00
New borrowings	0	0	0	0	0.00	0	0	0	0.00
Introduced funds	0	0	0	0	0.00	0	0	0	0.00
Cash surplus/deficit	**–46 630**	**49 030**	**1 634**	**172**	**0.82**	**130 405**	**4 347**	**420**	**2.20**
Vineyard surplus for reinvestment[2]	**85 370**	**54 530**	**1 818**	**191**	**0.92**	**126 405**	**4 213**	**407**	**2.13**
ASSETS AND LIABILITIES									
Land and building (opening)[3]	7 200 000	5 490 000	183 000	19 249	92.34	5 490 000	183 000	17 698	92.58
Plant and machinery (opening)	210 000	170 000	5 667	596	2.86	170 000	5 667	548	2.87
Vineyard related investments (opening)	0	0	0	0	0.00	0	0	0	0.00
Total vineyard assets (opening)	**7 410 000**	**5 660 000**	**188 667**	**19 845**	**95.20**	**5 660 000**	**188 667**	**18 246**	**95.44**
Total vineyard liabilities (opening)	**730 000**	**670 000**	**22 333**	**2 349**	**11.27**	**670 000**	**22 333**	**2 160**	**11.30**
Total vineyard equity	**6 680 000**	**4 990 000**	**166 333**	**17 496**	**83.93**	**4 990 000**	**166 333**	**16 086**	**84.14**

Notes
1 Data from 2008/09 has been adjusted based on weighted average (versus average) values so comparisons can be made with 2009/10 and 20010/11 data.
2 Vineyard surplus for reinvestment is calculated as follows: discretionary cash less off-vineyard income and drawings.
3 Land and building asset value includes the value of owned land, vines and supports, other improvements, vineyard buildings and dwellings on the property.

TABLE 7: MARLBOROUGH VINEYARD MODEL EXPENDITURE

	2008/09[1]	2009/10				2010/11 BUDGET			
	WHOLE VINEYARD ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)
VINEYARD WORKING EXPENSES									
Hand harvesting	4 205	4 920	164	17	0.08	3 060	102	10	0.05
Pruning (and tying down)	71 400	64 980	2 166	228	1.09	63 600	2 120	205	1.07
Canopy/crop management	56 695	49 140	1 638	172	0.83	46 920	1 564	151	0.79
Other wages	33 870	24 900	830	87	0.42	23 520	784	76	0.40
ACC - employees	1 390	1 470	49	5	0.02	1 380	46	4	0.02
Total labour expenses	**167 560**	**145 410**	**4 847**	**510**	**2.45**	**138 480**	**4 616**	**446**	**2.34**
Weed and pest control	24 360	20 430	681	72	0.34	22 410	747	72	0.38
Fertiliser and lime	12 440	5 430	181	19	0.09	7 590	253	24	0.13
Electricity	3 305	3 630	121	13	0.06	3 750	125	12	0.06
Vehicle	6 785	5 040	168	18	0.08	4 740	158	15	0.08
Fuel	7 365	7 530	251	26	0.13	7 530	251	24	0.13
Repairs and maintenance	11 835	12 660	422	44	0.21	8 310	277	27	0.14
General	4 265	3 150	105	11	0.05	3 030	101	10	0.05
Frost protection	2 090	4 230	141	15	0.07	3 900	130	13	0.07
Contract machinery work	4 000	3 120	104	11	0.05	3 840	128	12	0.06
Machine harvesting	16 095	17 250	575	60	0.29	17 730	591	57	0.30
Total other working expenses	**92 540**	**82 470**	**2 749**	**289**	**1.39**	**82 830**	**2 761**	**267**	**1.40**
Rates	11 020	11 580	386	41	0.19	11 640	388	38	0.20
Water rates	1 970	1 320	44	5	0.02	1 320	44	4	0.02
General insurance	3 190	3 060	102	11	0.05	2 970	99	10	0.05
Crop insurance	0	0	0	0	0.00	0	0	0	0.00
ACC owners	1 885	1 110	37	4	0.02	1 110	37	4	0.02
Communication	2 290	2 460	82	9	0.04	2 310	77	7	0.04
Accountancy	3 105	3 120	104	11	0.05	3 060	102	10	0.05
Legal and consultancy	1 625	1 140	38	4	0.02	1 110	37	4	0.02
Levies and subscriptions	4 145	3 840	128	13	0.06	4 230	141	14	0.07
Other administration	3 685	2 040	68	7	0.03	2 130	71	7	0.04
Total overhead expenses	**32 915**	**29 670**	**989**	**104**	**0.50**	**29 880**	**996**	**96**	**0.50**
Total vineyard working expenses	**293 015**	**257 550**	**8 585**	**903**	**4.33**	**251 190**	**8 373**	**810**	**4.24**
CALCULATED RATIOS									
Economic vineyard surplus (EVS)[2]	100 470	37 127	1 238	130	0.62	82 804	3 610	349	1.89
Vineyard working expenditure/NCI[3]	55%	62%				52%			
EVS/total vineyard assets	1.4%	0.7%				1.5%			
EVS less interest and lease/equity	0.5%	–0.4%				0.4%			
Interest+rent+lease/NCI	12.7%	13.5%				13.3%			
EVS/NCI	18.9%	8.9%				17.3%			
Wages of management	75 000	75 000	2 500	263	1.26	75 000	2 500	242	1.26

Notes
1 Data from 2008/09 onwards for Marlborough has been adjusted based on weighted average (vss average) values so comparisons can be made with 2009/10 and 20010/11 data.
2 EVS 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.
3 Net cash income.

HAWKES BAY VINEYARD MODEL

FINANCIAL PERFORMANCE OF THE HAWKE'S BAY VINEYARD MODEL IN 2009/10

The Hawke's Bay vineyard model achieved a net trading loss before tax of $28 100, down from a taxable profit of $3600 in 2008/09. This result reflects significantly lower yields and further reductions in prices paid for grapes.

The Hawke's Bay vineyard model remains at 10 hectares planted. The variety mix has been rationalised reflecting market demand in the region, with the removal of Chardonnay clones grown for sparkling wine. Pinot Noir grown for sparkling wine remains in the model for now, although winery demand for this variety in the future is uncertain.

LOWER YIELDS AND PRICES REDUCE REVENUE

Net cash income for the Hawke's Bay model in 2009/10 was $99 000, down 29 percent compared with the previous year. This was due to significantly lower yields due to poor weather conditions at flowering, lower grape demand from wineries, and lower prices paid for grapes.

CHALLENGING CLIMATIC CONDITIONS IN THE 2009/10 SEASON

The 2009/10 season began with minimal frost issues in Hawke's Bay. Higher than average rainfall levels in September and October ensured soil moisture levels were at their optimum for the start of shoot growth. Hail storms at the end of October caused little damage.

Higher than average rainfall levels lead to cooler temperatures during October, resulting in growing degree days (GDD) being around half of the long-term average for this month (refer to Table 8 for monthly rainfall and GDD information). The fewer GDD delayed flowering by approximately ten days. Cooler weather in

TABLE 8: HAWKE'S BAY WEATHER DATA

	RAINFALL (mm)			GROWING DEGREE DAYS[1] (GDD)		
MONTH	2008/09	2009/10	AVERAGE	2008/09	2009/10	AVERAGE
June	49	143	69	12	11	20
July	135	86	103	20	5	14
August	26	49	56	24	40	20
September	28	88	52	46	43	47
October	29	118	51	101	56	102
November	16	15	49	143	138	146
December	30	77	45	247	187	216
January	2	147	45	261	224	250
February	72	24	54	258	238	227
March	24	13	64	165	205	197
April	22	24	66	101	113	118
May	79	198	61	34	70	54
Total	**613**	**981**	**716**	**1410**	**1329**	**1411**

Note
1 GDD – growing degree days. GDDs are calculated by taking the average of the daily high and low temperatures each day compared with a baseline (usually 10 degrees centigrade). They help to predict the date that a flower will bloom or a crop reach maturity.

Source
NIWA (Whakatu).

December with a significant rain event at flowering resulted in a low fruit set, and subsequent decreased yields across the region.

The trend of fewer than average GDD continued until the end of January which also had very high rainfall. These wet conditions increased disease pressure from *Botrytis* on fruit at early veraison. During the ripening months the weather patterns settled down, rainfall dropped to well below average and temperatures increased. These conditions terminated the *Botrytis* infections.

Late flowering caused delays through the whole season. Harvest for most of the region occurred up to two weeks later than usual. However, the balmy, dry autumn weather meant conditions were excellent for the last month of ripening.

REDUCED YIELD BUT QUALITY IS HIGH

Grape production for the vineyard model in 2009/10 dropped to 73 tonnes overall compared with the yield of 89 tonnes the previous year. Some growers carried out early season, pre-flowering shoot-thinning with the goal of reducing canopy management costs later in the season and containing yields to meet winery yield targets. This would have reduced potential flower numbers hence exacerbating the poor fruit set achieved.

Unfavourable weather conditions were responsible for the 27 percent drop in yields per hectare for Chardonnay clones. Merlot had a 35 percent yield reduction, again caused by poor conditions at flowering but also influenced by large yields in the previous season. Yields for Pinot Noir sparkling were down by 40 percent compared with last season; the result of poor conditions at flowering, a change in the pruning system and lower demand for this variety from wineries.

Young plantings of Pinot Gris and Syrah were also affected by the poor weather at flowering. Sauvignon Blanc was largely unaffected, due to the timing of flowering.

The fruit quality for all varieties has exceeded expectations, with excellent quality reported for Chardonnay, Syrah and Merlot.

FURTHER DROP IN PRICES

Prices were budgeted to remain similar or increase slightly between 2008/09 and 2009/10; however, prices for all white grape varieties declined. Pinot Noir sparkling prices fell to almost half the level achieved over recent years, reflecting the significantly reducing winery demand for this grape variety. Sauvignon Blanc prices decreased to 41 percent below the prices achieved two years ago.

The quality of most red varieties, especially Syrah and Merlot, was excellent. Prices for all red varieties were more or less maintained.

EXPENDITURE KEPT UNDER A TIGHT REIN

Growers responded to lower grape income by cutting back on wages, reducing inputs and deferring expenditure. Vineyard working expenses for the vineyard model decreased 9 percent to $8400 per producing hectare, at a similar level to three years ago.

Savings of over 50 percent ($5500) were made in other wages. This reflects the reduced number of part-time and full-time staff employed on vineyards with growers and their families taking up the extra work load as a cost cutting necessity. With the emphasis on cutting labour inputs, expenditure on contract machinery work increased by 26 percent to $3400. This still resulted in a significant net saving per producing hectare compared with 2008/09.

Expenditure on canopy management decreased by 20 percent to $1020 per producing hectare. Growers have increased the use of sheep for leaf plucking and early shoot thinning.

There were very few frost events in spring 2009, allowing for savings in frost protection expenditure of 24 percent compared with last year to $163 per producing hectare.

High disease pressure during the season meant that the model spent $1071 per producing hectare on weed and pest control. No savings were made, contrary to growers' intentions. Many growers are using biological control options and softer chemistry. These products are usually more expensive and require more frequent application. The fact that costs were held at the level of the previous years indicates efficiency gains.

Due to increased competition and a slow start to harvest, growers were able to negotiate lower prices for machine harvesting. A reduction of 10 percent to $750 per producing hectare was achieved.

Growers deferred expenditure on repairs and maintenance resulting in expenditure of $561 per producing hectare. Overhead expenses were held close to last year's level at $1280 per producing hectare. Generally the monitored growers cut back on overhead expenditure. Some growers however incurred extra costs during the year due to the renewal of water consents at costs significantly higher than previously.

NET RESULT DETERIORATES

The Hawke's Bay vineyard model achieved a cash operating surplus of $16 700 in 2009/10, only one third of that achieved in the previous year. This surplus is insufficient to cover all of the debt servicing costs for the business. No drawings are being taken. A small amount of capital expenditure was made to buy necessities such as new bird netting; this was funded from introduced funds. The reliance on income from off-vineyard wages, other businesses and investments is increasing.

BUDGET FINANCIAL PERFORMANCE OF THE HAWKE'S BAY VINEYARD MODEL IN 2010/11

There is a lot of uncertainty amongst grape growers about the year ahead. Growers believe they have cut their costs back as far as they can without impacting on vineyard health. Monitored growers hope that if prices remain stable and with a return to average yields, most businesses with a supply contract will at least break

TABLE 9: HAWKE'S BAY VINEYARD MODEL GRAPE PRICES

YEAR ENDED 30 JUNE	2006/07 ($/T)	2007/08 ($/T)	2008/09 ($/T)	2009/10 ($/T)	2010/11 BUDGET ($/T)
GRAPE VARIETY					
Merlot	1 852	1 800	1 800	1 780	1 725
Syrah	2 240	2 250	2 000	2 000	2 000
Other red[1]	2 075	2 040	2 000	2 000	2 000
Chardonnay - Mendoza, Clone 15 and Clone 95[2]	1 693	1 750	1 550	1 400	1 325
Sauvignon Blanc	1 660	1 800	1 475	1 060	1 100
Pinot Gris	1 819	1 900	1 700	1 350	1 250
Pinot Noir - sparkling	875	900	910	500	500
Weighted average	**1 625**	**1 750**	**1 565**	**1 350**	**1 375**

Notes
1 Other red includes Cabernet Sauvignon from 2007/08 onwards.
2 Chardonnay Clone 95 included from 2009/10 onwards.

even or make a small profit. The Hawke's Bay vineyard model reflects this position, and is expected to achieve a small profit before tax of approximately $4200 in 2010/11. This budget is based on the assumption that all grape varieties will be sold to wineries.

REVENUE EXPECTED TO INCREASE IN 2010/11

The expectation is for grape yields to return to average levels, dependent on winery yield caps. The redevelopment completed in winter/spring 2008 is expected to increase production slightly with the full planted area now in production; an average of 9.4 tonnes per producing hectare is expected for the vineyard model.

There is much uncertainty surrounding price expectations for the year ahead. Whilst growers would like to think that prices have generally dropped as low as they can go, there is some uncertainty about the prices for Chardonnay and Pinot Gris, with further, but small decreases, expected.

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.

EXPENDITURE TO BE KEPT UNDER TIGHT CONTROL

Vineyard working expenses for the Hawke's Bay model in 2010/11 are expected to remain at similar levels to the previous year at $8300 per producing hectare. The majority of growers believe they have reduced their vineyard working expenses as far as possible without affecting vine health and fruit quality. Growers and their families intend to keep working on the vineyard and some growers have set up systems for sharing machinery and performing vineyard tasks for each other to help limit expenditure.

Expenditure on fertiliser is expected to increase 30 percent to $200 per producing hectare as this expense was reduced or deferred in the 2009/10 season. Frost protection expenditure is also budgeted to increase to more typical levels of $250 per producing hectare as last season was relatively frost free. Expenditure on repairs and maintenance is deferred again, and further small cuts in overhead expenses are planned; a total of $1200 per producing hectare is budgeted.

CONTINUED RELIANCE ON OFF-VINEYARD INCOME

In 2010/11, the Hawke's Bay vineyard model is expected to triple the cash operating surplus position of the previous year, reaching approximately $46 000. This surplus should at least provide for debt servicing expenses. No capital or development expenditure is planned and growers are unlikely to make any principal repayments in 2010/11.

With income limited by stagnant or decreasing grape prices and caps on yields, the profitability of the Hawke's 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. Growers are well aware that having a good relationship with their winery is paramount to the future survival of their business.

The vineyard model shows a decline in property value on 1 July 2010 at $1.35 million; down 9 percent when compared with one year previously. This reflects the market correction in vineyard values in the Hawke's Bay region since July 2009, including lifestyle properties. The Hawke's Bay vineyard model represents a predominantly mature and established vineyard with a lifestyle component. The decline in vineyard value has meant a reduction in equity level for the vineyard model to 77 percent, down 5 percent since 2008/09.

TABLE 10: HAWKE'S BAY VINEYARD MODEL BUDGET

	2008/09	2009/10				2010/11 BUDGET			
	WHOLE VINEYARD ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)
REVENUE									
Income from grapes	139 400	98 965	10 100	1 350	4.21	129 070	12 907	1 375	5.49
Other vineyard income	0	0	0	0	0.00	0	0	0	0.00
Net cash income	**139 400**	**98 965**	**10 100**	**1 350**	**4.21**	**129 070**	**12 907**	**1 375**	**5.49**
Vineyard working expenses	**90 800**	**82 320**	**8 400**	**1 122**	**3.50**	**82 990**	**8 300**	**883**	**5.53**
Cash operating surplus	**48 600**	**16 645**	**1 700**	**227**	**0.71**	**46 080**	**4 608**	**490**	**1.96**
Interest	23 000	24 500	2 450	334	1.04	24 500	2 450	261	1.04
Rent and/or leases	0	0	0	0	0.00	0	0	0	0.00
Depreciation	23 000	21 200	2 163	289	0.90	18 500	1 850	197	0.79
Net non-fruit cash income	1 000	1 000	102	14	0.04	1 100	110	12	0.05
Vineyard profit before tax	**3 600**	**–28 055**	**–2 863**	**–383**	**–1.19**	**4 180**	**418**	**45**	**0.18**
Tax	0	0	0	0	0.00	0	0	0	0.00
Vineyard profit after tax	**3 600**	**–28 055**	**–2 863**	**–383**	**–1.19**	**4 180**	**418**	**45**	**0.18**
Add back depreciation	23 000	21 200	2 163	289	0.90	18 500	1 850	197	0.79
Off-vineyard cash income	48 000	52 000	5 306	709	2.21	50 000	5 000	532	2.13
Discretionary cash	**74 600**	**45 145**	**4 607**	**616**	**1.92**	**72 680**	**7 268**	**774**	**3.09**
APPLIED TO:									
Net capital purchases	50 000	8 000	816	109	0.34	0	0	0	0.00
Development	8 000	0	0	0	0.00	0	0	0	0.00
Drawings	25 000	0	0	0	0.00	0	0	0	0.00
Principal repayments	0	0	0	0	0.00	0	0	0	0.00
New borrowings	50 000	0	0	0	0.00	0	0	0	0.00
Introduced funds	8 000	8 000	816	109	0.34	0	0	0	0.00
Cash surplus/deficit	**49 600**	**45 145**	**4 607**	**616**	**1.92**	**72 680**	**7 268**	**774**	**3.09**
Vineyard surplus for reinvestment[1]	**1 600**	**–6 855**	**–699**	**–93**	**–0.29**	**22 680**	**2 268**	**241**	**0.97**
ASSETS AND LIABILITIES									
Land and building (opening)[2]	1 480 000	1 480 000	151 020	20 178	62.98	1 350 000	135 000	14 369	57.45
Plant and machinery (opening)	72 600	105 000	10 714	1 432	4.47	95 000	8 710	1 011	4.04
Vineyard related investments (opening)	0	0	0	0	0.00	0	0	0	0.00
Total vineyard assets (opening)	**1 552 600**	**1 585 000**	**161 735**	**21 610**	**67.45**	**1 445 000**	**144 500**	**15 380**	**61.49**
Total vineyard liabilities (opening)	**285 000**	**335 000**	**34 184**	**4 567**	**14.26**	**335 000**	**33 500**	**3 566**	**14.26**
Total vineyard equity	**1 267 600**	**1 250 000**	**127 551**	**17 043**	**53.19**	**1 110 000**	**111 000**	**11 814**	**47.23**

Notes
1 Vineyard surplus for reinvestment is calculated as follows: discretionary cash less off-vineyard income and drawings.
2 Land and building asset value includes the value of owned land, vines and supports, other improvements, vineyard buildings and dwellings on the property.

TABLE 11: HAWKE'S BAY VINEYARD MODEL EXPENDITURE

	2008/09	2009/10				2010/11 BUDGET			
	WHOLE VINEYARD ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)	WHOLE VINEYARD ($)	PER PRODUCING HA ($)	PER TONNE GROSS ($)	PER VINE ($)
VINEYARD WORKING EXPENSES									
Hand harvesting	600	600	61	8	0.03	600	60	6	0.03
Pruning (and tying down)	14 100	14 350	1 464	196	0.61	14 650	1 465	156	0.62
Canopy/crop load management	12 500	10 000	1 020	136	0.43	10 250	1 025	109	0.44
Other wages	10 000	4 500	459	61	0.19	4 100	410	44	0.17
ACC - employees	200	170	17	2	0.01	90	9	1	0.00
Total labour expenses	**37 400**	**29 620**	**3 022**	**404**	**1.26**	**29 690**	**2 969**	**316**	**1.26**
Weed and pest control	10 200	10 500	1 071	143	0.45	11 000	1 100	117	0.47
Fertiliser and lime	1 500	1 500	153	20	0.06	2 000	200	21	0.09
Electricity	2 600	2 600	265	35	0.11	2 500	250	27	0.11
Vehicle	2 100	2 300	235	31	0.10	2 000	200	21	0.09
Fuel	3 900	3 750	383	51	0.16	3 750	375	40	0.16
Repairs and maintenance	6 200	5 500	561	75	0.23	4 350	435	46	0.19
General	2 000	1 400	143	19	0.06	1 250	125	13	0.05
Frost protection	2 100	1 600	163	22	0.07	2 500	250	27	0.11
Contract machinery work	2 700	3 400	347	46	0.14	3 950	395	42	0.17
Machine harvesting	8 000	7 350	750	100	0.31	8 000	800	85	0.34
Total other working expenses	**41 300**	**39 900**	**4 071**	**544**	**1.70**	**41 300**	**4 130**	**440**	**1.76**
Rates	2 700	2 800	286	38	0.12	2 900	290	31	0.12
Water rates	0	0	0	0	0.00	0	0	0	0.00
General insurance	3 200	3 200	327	44	0.14	3 200	320	34	0.14
Crop insurance	0	0	0	0	0.00	0	0	0	0.00
ACC - owners	0	0	0	0	0.00	0	0	0	0.00
Communication	1 800	1 850	189	25	0.08	1 400	140	15	0.06
Accountancy	2 200	2 400	245	33	0.10	2 200	220	23	0.09
Legal and consultancy	0	650	66	9	0.03	600	60	6	0.03
Levies and subscriptions	1 000	700	71	10	0.03	950	95	10	0.04
Other administration	1 200	1 200	122	16	0.05	750	75	8	0.03
Total overhead expenses	**12 100**	**12 800**	**1 280**	**175**	**0.54**	**12 000**	**1 200**	**128**	**0.51**
Total vineyard working expenses	**90 800**	**82 320**	**8 400**	**1 122**	**3.50**	**82 990**	**8 300**	**883**	**3.53**
CALCULATED RATIOS									
Economic vineyard surplus (EVS)[1]	–21 000	–51 405	–5 245	–701	–2.19	–17 868	–1 787	–190	–0.76
Vineyard working expenditure/NCI[2]	65%	83%				64%			
EVS/Total vineyard assets	–1%	–3%				–1%			
EVS less interest & lease/equity	–3%	–6%				–4%			
Interest+rent+lease/NCI	17%	25%				19%			
EVS/NCI	–15%	–52%				–14%			
Wages of management	46 500	46 850	4 781	639	1.99	45 450	4 545	484	1.93

Notes
1 EVS 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.

TABLE 12: HAWKE'S BAY VINEYARD MODEL 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 ($/T)	REVENUE ($)
GRAPE VARIETY							
Merlot	2.4	6.5	15.6	21	24.0	1 780	27 750
Syrah	0.4	4.5	1.8	2	23.5	2 000	3 600
Other red[1]	1.4	4.5	6.3	9	...	2 000	12 595
Chardonnay - Mendoza, Clone 15 and Clone 95[2]	2.3	6.2	14.3	19	23.0	1 400	19 965
Sauvignon Blanc	1.8	12.5	22.5	31	20.5	1 060	23 840
Pinot Gris	0.8	7.0	5.6	8	22.5	1 350	7 555
Pinot Noir - sparkling	0.7	10.5	7.3	10	19.5	500	3 655
Total/average	**9.8**	**7.5**	**73.3**	**100**		**1 350**	**98 965**

Notes
1 Other red includes Cabernet Sauvignon from 2007/08 onwards.
2 Chardonnay Clone 95 included from 2009/10 onwards.

Symbol
... Not applicable.

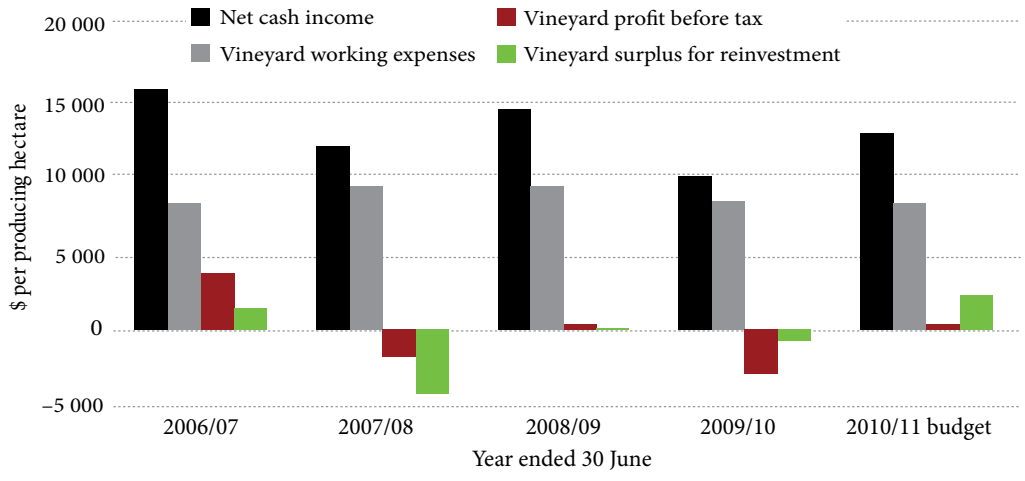
TABLE 13: HAWKE'S BAY VINEYARD MODEL BUDGET PRODUCTION AND INCOME DETAILS FOR 2010/11

YEAR ENDED 30 JUNE	AREA (HA)	PRODUCTION PER HECTARE (T/HA)	TOTAL PRODUCTION (T)	GROSS YIELD (%)	BRIX LEVEL (BRIX)	RETURN ($/T)	REVENUE ($)
GRAPE VARIETY							
Merlot	2.4	9.0	21.6	23	23.0	1 725	37 260
Syrah	0.4	5.5	2.2	2	23.0	2 000	4 400
Other red[1]	1.4	6.5	9.1	10	...	2 000	18 200
Chardonnay - Mendoza, Clone 15 and Clone 95[2]	2.3	10.0	23.0	24	22.5	1 325	30 475
Sauvignon Blanc	1.8	12.0	21.6	23	20.5	1 100	23 760
Pinot Gris	1.0	9.0	9.0	10	23.0	1 250	11 250
Pinot Noir - sparkling	0.7	10.5	7.5	8	19.0	500	3 730
Total/average	**10.0**	**9.4**	**94.0**	**100**		**1 375**	**129 070**

Notes
1 Other red includes Cabernet Sauvignon from 2007/08 onwards.
2 Chardonnay Clone 95 included from 2009/10 onwards.

Symbol
... Not applicable.

FIGURE 2: HAWKE'S BAY VINEYARD MODEL PROFITABILITY TRENDS



INDUSTRY ISSUES AND DEVELOPMENTS

GROWER MORALE AND BUSINESS VIABILITY PLANS

Growers in both Marlborough and Hawke's Bay continue to face uncertain times.

The 2009/10 season has been the most financially challenging since MAF monitoring began in 2004. The combination of depressed prices and strictly enforced yield restrictions has led to growers seeking innovative ways to reduce costs. However, growers are very mindful that costs cannot be restricted at the expense of grape quality.

MARLBOROUGH

A good growing season and a common sense response to the supply imbalance for grapes meant that most vineyards in Marlborough made a small profit before tax in 2009/10. However, at current prices, growers recognise there is little margin for error.

Many Marlborough growers, particularly those growers with low debt levels, remain optimistic about the future of grape growing. There is general consensus that yield restrictions have been successful in capping the wine surplus although it will take another one or two years to sell that excess wine inventory. In contrast growers with high debt levels, high land lease costs or no supply contract are still decidedly pessimistic about the future and are open to options to exit the industry.

Growers recognise growing without a contract and selling on the spot market is currently unsustainable. However, growers also find the relationship with their winery and contract negotiations to be a very demanding and difficult part of their business.

HAWKE'S BAY

Morale amongst contract grape growers in the Hawke's Bay region is mixed depending on circumstances. Some grape growers have been forced out of grape growing over the past year due to loss of contracts, whilst others have decided that now is the time to change. Generally those vines that are being pulled out are not on prime grape producing land, and other land use options are available.

In Hawke's Bay, growers with contracts are also reviewing their business viability plans, given the expectation of reduced income from grapes in the short-term, and the potential delay in payments from wineries by up to eleven months. Options being considered are:

- Contracting out the vineyard to a vineyard management firm whilst seeking full time paid employment elsewhere.
- Leasing additional vineyards to gain economies of scale.
- Sourcing grapes from other vineyards to honour contracts whilst changing varieties on owned vineyards.
- Putting vineyards on the market.

GROWER RESPONSE TO INPUT PRICE CHANGES AND SHORTAGES

All growers have been reviewing their vineyard practices and have made cuts where they can, including laying off vineyard staff and doing more work themselves. Some have had to find alternate off vineyard work to maintain viability. Maintenance has been deferred and spending curtailed. Most feel they have cut back as far as they possibly can without vineyard health being adversely impacted.

Larger growers in particular are achieving tangible labour savings through the Recognised Seasonal Employer scheme, particularly as skilled staff return to the same vineyard. A more stable labour supply combined with

increased mechanisation is resulting in labour contractors offering more competitive rates.

Most growers feel that they have implemented all available methods of vineyard cost reduction. Further effort is being made by using multifunctional machinery, sharing vineyard machinery with other growers, optimising leaf plucking with sheep and winter grazing, de-budding with chemicals and holding labour costs. More interest is being shown in stripping machines to mechanically remove the previous season's unwanted canes. Some growers are finding they can negotiate better terms with contractors. Many are reviewing pruning systems to cut costs.

Growers expect costs for fuel and electricity to increase from 1 July 2010 due to the implementation of the New Zealand Emissions Trading Scheme. Further increases in expenses are likely to arise from increased minimum wage rates and advocated membership of New Zealand Winegrowers Sustainable Winegrowing system. Because wineries are expected to meet certain price points for their product, there is concern amongst growers that many of these extra costs will be borne by growers.

ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT

The moves to cut costs are also of benefit to the environment such as fewer tractor passes through reduced mowing and less application of herbicides and insecticides. The widespread use of sheep is not only reducing the use of machinery but also assists nutrient recycling. Some growers are moving to incorporate organic practices without seeking accreditation. Seaweed products are being more widely used as the benefit of improved vine health increasing their ability to resist some diseases is being recognised.

Almost all of the monitored growers in both Marlborough and Hawke's Bay are now accredited to Sustainable Winegrowing. Growers are closely monitoring soil water status to conserve water use, which also conserves some fuel and electricity. Some growers are using "wettable powder" spray formulations rather than "flowables", so as to make it easier to dispose of the paper packaging. Most growers are recycling where possible such as spray containers and bird netting.

A few growers have planted native species in areas of their vineyard.

CONCERNS OVER WATER CONSENTS IN HAWKE'S BAY

Many Hawke's Bay growers and wineries are facing higher costs for water consent renewals, particularly if water is being drawn from the Ngaruroro River catchment. The minimum flows and allocation limits for this river are currently uncertain. The Hawke's Bay Regional Council is undertaking a detailed science based catchment study on water allocations from this river and its interaction with adjacent aquifers. This will then form part of a plan change process. The impacts for growers affected by this catchment study are:

- higher costs for water consent renewals, approximately $4000 for each consent; and
- a shorter consent period compared to previously, with expiry in 2015, timed to coincide with the plan change process. The short timeframe of recently renewed water consents and the potential risks of non-renewal are of concern to both growers and financiers.

The soon-to-be-operative national regulations on water-take measurement (meters) requires the installation of a water meter on all water-takes over five litres per second. Growers in the Hawke's Bay region see positives in this development as well as increased costs. While not specifically required by the national regulations, information could be provided on water availability in real time. Hence, more water could be made available to either existing or new users.

INFORMATION ABOUT THE MODELS

The two vineyard models represent the two predominant grape-growing regions in New Zealand of Marlborough and Hawke's Bay. These two regions accounted for 84 percent of the grape harvest in New Zealand in 2010. 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 vineyard model, followed by Pinot Noir, Chardonnay and Pinot Gris.

HAWKE'S BAY VINEYARD MODEL

The Hawke's 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.

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

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