

The cost of grape production and producer profitability

By



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From the analysis of the 2008 harvest it was found that the wine industry's average production cost has increased by 24% over the past five years to R23 578 per ha. At the same time income and net farming income per ha dropped by 6% and 52% respectively, which undoubtedly caused financial problems for primary wine producers. Despite the current high pressure from input costs, a further increase of 20% is expected during the 2009 harvest year. This is primarily driven by exceptionally high price increases for fertiliser, pesticides, herbicides, fuel and electricity. Overall, prospects are more positive with strong indications of an imminent upswing and there are more opportunities for enterprising producers to achieve success once again, as was the case over the past five years.

1. Introduction

In 2008, as over the past four years, VinPro conducted financial analyses in the respective South African wine districts in order to calculate the production, capital and cost structure, as well as the profitability of primary wine producers. The survey, better known as the Production Plan, is executed in collaboration with Winetech and with the financial support of the National Agricultural Marketing Council, Absa, Nedbank and Standard Bank. At the core of the survey lies the determination of average production cost guidelines for each wine district in the wine industry, but it serves furthermore to provide producers and industry organisations with an agricultural economic support service for certain negotiations and decision making.

The content of this report refers mainly to industry average results and the evaluations are not cultivar or block specific – wine grapes are evaluated in totality as a branch of the industry. The majority of the 220 farming enterprises that participated in the survey in 2008 are diversified into other agricultural activities, benefit from economies of scale and are predominantly producers with very good to above-average managerial ability. The test sample represents $\pm 18\%$ of the total wine grape surface and $\pm 20\%$ of the total 2008 grape harvest respectively.

2. Production cost

Figure 1 shows the composition of total production costs. For the 2008 production year the industry average cost related to the production of wine grapes consisted of approximately 70% annual cash expenditure (running cost) and 30% capital maintenance (provision for replacement). Since the 2004 production year total industry average production cost has increased by 24% to R23 578 per ha.

It was obvious that over the past five years annual cash expenditure increased by only 17% to R16 702 per ha for the 2008 production year. Since 2007 cost increases have been only 4% – inflation for the same period was more than 7%. This can be partly ascribed to very good cost management, but undoubtedly also to cash flow pressure, the direct impact of which was that some producers simply cut costs to the bone – in many instances to their detriment.

Capital maintenance (provision for replacement) i.r.o. the running concern has increased by 44% since 2004. Considerable increases i.r.o. vineyard replacement, especially the cost of soil preparation, trellis and irrigation systems, the purchase price of production means, as well as increases in building costs, are said to be some of the most important reasons for this state

of affairs. Producers have greater control over the management of their cash expenses than over the cost of capital maintenance.

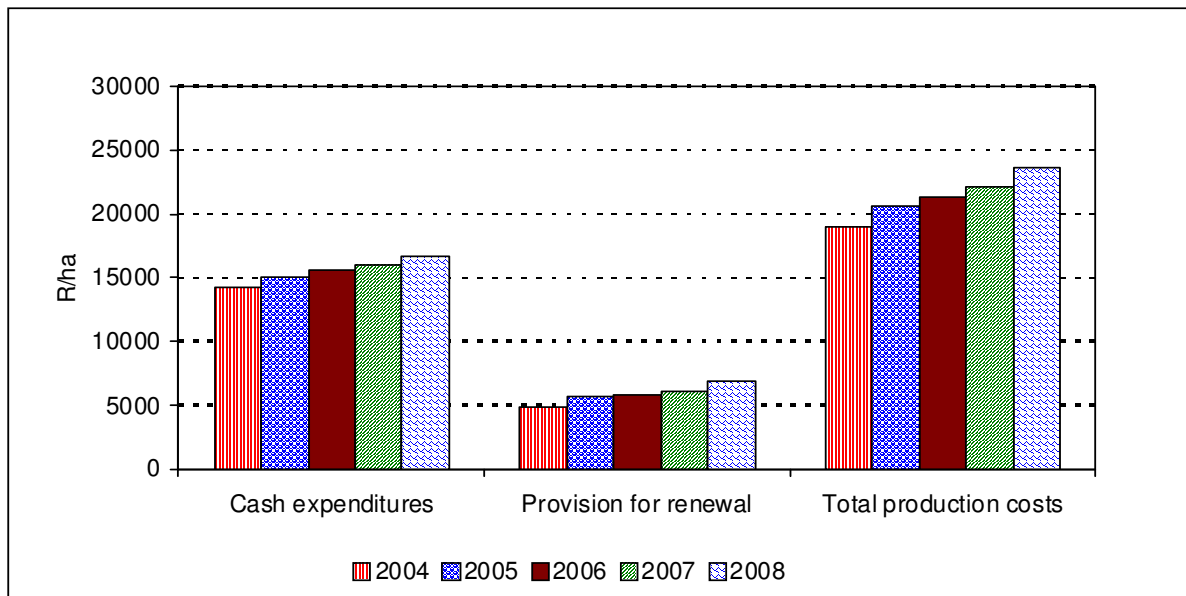


Figure 1: Cost of wine grape production (R/ha), Industry average

Source: Vinpro, 2009

Figure 2 shows the other cash expenses as part of total cash expenses. Costs i.r.o. short term practices, i.e. pruning, fertilisation, pest and disease control, weed control, canopy management, harvesting cost, mechanisation and irrigation were responsible for approximately 75% of the total cash expenditure. The remainder of the cash expenses were constituted of repair, maintenance and upkeep of vineyards, means of production (loose assets) and fixed improvements, as well as licenses, insurance, land and municipal taxes and administration cost.

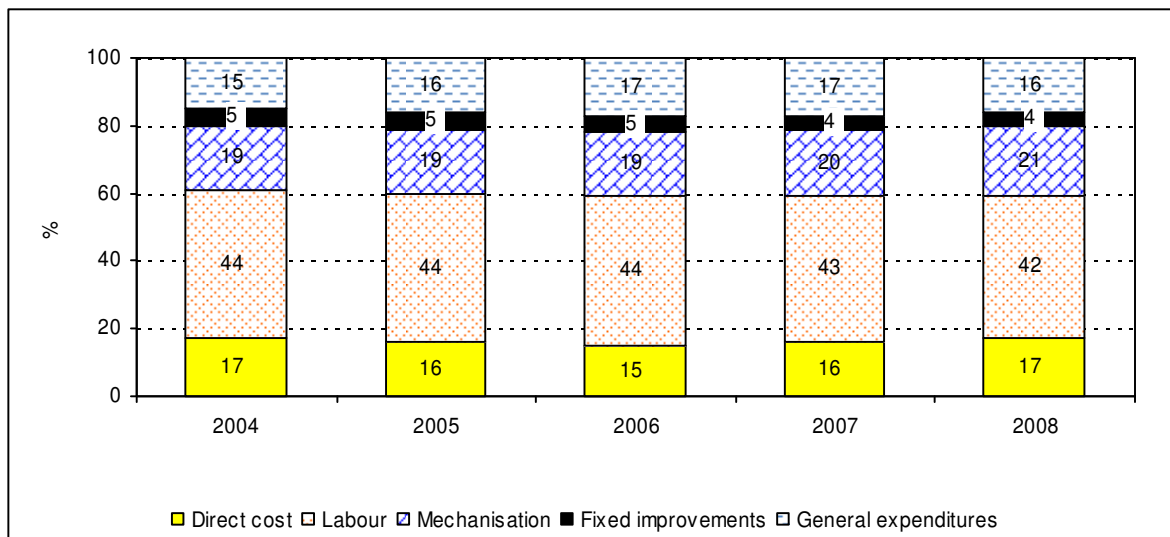


Figure 2: Composition of annual cash expenditures (industry average)

Source: Vinpro, 2009

Production cost differs among districts in the wine industry (see Table 1), as well as for each farming enterprise. Undoubtedly differences exist i.r.o. the cost of different blocks or cultivars, because producers align vineyard practices to specific price points – *provided the price point offers sufficient motivation*. This not being the case, producers instead follows a strategy of average production with no significant cost differences between blocks.

Over the past five years producers, supported by viticultural advice, have made a concerted effort to produce at the lowest possible cost, with optimal production and quality, for specific price points.

From Table 1 it is also clear that although the production cost i.r.o. each wine district differs per hectare, the difference per ton is even more significant. For the 2008 production year it ranged between the two extremes of R790/ton (Orange River) and R3 951/ton (Stellenbosch). The biggest contributing factor was production (ton/ha).

Table 1: Production cost for wine grapes, cost per hectare in various producing areas, 2008 harvest

PRODUCTION COST FOR WINE GRAPES - COST AS RAND PER HECTARE (2008 HARVEST)										
Weight	19.03%	19.20%	10.87%	8.93%	13.77%	3.30%	15.22%	9.68%	100.00%	
DISTRICT	Stellenbosch	Paarl	Olifants River	Worcester	Breedekloof	Little Karoo	Robertson	Orange River	Average	Malmesbury
COST STRUCTURE	R / ha	R / ha	R / ha	R / ha	R / ha	R / ha	R / ha	R / ha	R / ha	R / ha
DIRECT COST										
SEED	113	61	1	54	71	197	5	15	57	76
FERTILIZER	504	543	1,299	932	715	931	891	831	770	556
ORGANIC MATERIAL	26	67	119	379	483	245	224	118	185	86
PESTICIDE CONTROL	1,572	1,132	921	1,271	1,453	1,049	1,309	962	1,257	1,076
HERBICIDE CONTROL	445	368	261	578	508	182	500	381	424	249
REPAIR & BINDING MATERIAL	301	83	159	169	155	114	138	113	163	59
Subtotal	2,961	2,254	2,760	3,383	3,385	2,718	3,067	2,420	2,855	2,102
LABOUR										
SUPERVISION	2,219	1,027	509	1,261	1,081	741	811	583	1,141	332
PERMANENT LABOUR	5,045	3,880	3,782	4,954	3,953	3,424	3,892	2,982	4,097	2,316
SEASONAL LABOUR & CONTRACT WORK	3,044	2,166	872	343	883	1,378	1,017	2,857	1,719	2,097
Subtotal	10,308	7,073	5,163	6,558	5,917	5,543	5,720	6,422	6,956	4,745
MECHANISATION										
FUEL	1,561	1,365	1,687	1,461	1,308	1,545	1,204	1,826	1,464	1,111
REPAIR, PARTS & MAINTENANCE	1,881	1,362	2,041	1,515	1,354	1,698	1,660	1,180	1,586	731
LISENCES AND INSURANCE	316	254	431	406	338	340	281	470	338	168
TRANSPORT HIRED	117	311	143	54	130	196	17	164	145	511
Subtotal	3,875	3,292	4,302	3,436	3,130	3,779	3,162	3,640	3,533	2,521
FIXED IMPROVEMENTS										
REPAIR AND MAINTENANCE	465	475	171	369	456	298	725	313	444	246
INSURANCE	217	127	194	194	161	200	112	340	183	92
Subtotal	682	602	365	563	617	498	837	653	627	338
GENERAL EXPENDITURES										
ELECTRICITY	625	756	1,037	910	1,092	775	1,031	419	831	273
WATER COSTS	702	368	1,509	767	86	1,206	503	899	652	42
LAND-, PROPERTY- & MUN TAXES	170	126	134	134	148	130	86	72	128	65
ADMINISTRATION	2,316	921	791	662	754	928	819	1,002	1,119	429
Subtotal	3,813	2,171	3,471	2,473	2,080	3,039	2,439	2,392	2,730	809
TOTAL CASH EXPENDITURES	21,639	15,392	16,061	16,413	15,129	15,577	15,225	15,527	16,702	10,515
PROVISION FOR RENEWAL	7,282	6,318	7,753	6,573	6,555	7,207	6,747	7,024	6,876	4,386
VINEYARDS	3,525	3,608	3,505	3,668	3,632	3,675	3,717	3,855	3,632	2,873
FIXED IMPROVEMENTS	933	523	659	618	624	523	553	394	630	362
LOOSE ASSETS or PRODUCTION MEANS	2,824	2,187	3,589	2,287	2,299	3,009	2,477	2,775	2,613	1,151
TOTAL EXPENDITURES	28,921	21,710	23,814	22,986	21,684	22,784	21,972	22,551	23,578	14,901
AVERAGE AREA PLANTED (HA)	102	80	49	103	94	31	76	22	77	164
AREA IRRIGATED (%)	83	92	100	100	100	100	100	100	95	34
AVERAGE AGE COMPOSITION (%)										
3 YEARS & YOUNGER	9.53	12.10	15.30	18.36	14.50	17.97	13.70	12.95	13.37	9.60
BETWEEN 4 & 7 YEARS	25.37	29.96	22.07	19.64	22.48	20.78	21.63	18.79	23.63	39.26
BETWEEN 8 & 15 YEARS	36.66	35.76	40.46	33.36	35.56	45.57	34.40	40.31	36.76	36.53
BETWEEN 16 & 20 YEARS	13.58	10.40	11.15	11.84	15.03	10.93	18.45	17.83	13.81	5.65
OLDER THAN 20 YEARS	14.85	11.78	11.04	16.81	12.42	4.75	11.82	10.12	12.43	8.95
AVERAGE YIELD (TON PER HA)	7.32	11.02	25.55	18.06	19.72	17.13	15.59	28.53	16.31	7.70
CASH EXPENDITURES (RAND PER TON)	2,956	1,397	629	909	767	909	977	544	1,024	1,366
TOTAL EXPENDITURES (RAND PER TON)	3,951	1,970	932	1,273	1,100	1,330	1,409	790	1,445	1,935

Source: Vinpro, 2009

Although producers are already staggering under input costs, an increase of 20% has been predicted for the 2009 production year. This is mainly driven by extraordinarily high increases i.r.o. prices of fertilisers, insecticides and pesticides, herbicides, fuel, electricity, etc. In the course of 2008 tariffs for electricity increased by almost 30% and for a large part of the year

producers suffered as a result of high fuel prices, while international prices i.r.o. certain nitrogen-related products increased by 160%. Prices of certain phosphate, potassium and sulphur-related products increased by more than 300%. These increases had an effect on the South African wine industry with the cost of fertilisers increasing locally from 60% to more than 300%. Chemicals to control oidium and downy mildew increased by between 20% and 300%.

As regards the cellar there were considerable increases i.r.o. electricity, bottling and packaging, chemicals, cleaning and filtration material, financing cost, etc, which will undoubtedly impact on producer income.

3. Profitability

In the calculation of the profitability of wine grape production two approaches are possible, viz:

- the profitability of a specific production year
- the profitability of a specific harvest year.

The results and findings in this report refer to the profitability of a specific harvest.

Time value of money and deferred payments to producers are undoubtedly some of the main factors causing serious cash flow problems in the current economic climate. It is impossible to calculate the impact thereof in this survey, since participants realise their income at different stages.

Profit, in other words Net Farming Income (NFI), is calculated as the difference between the total income and total production cost, i.e.:

PROFIT (NFI) = TOTAL INCOME – TOTAL EXPENDITURE (before interest, tax and entrepreneur's remuneration)

The industry average NFI over the past five years i.r.o. the participants was calculated as shown in Table 2 and Figure 3.

Table 2: Income and Expenditure statement, 2004 to 2008

INCOME & EXPENDITURE STATEMENT	2004	2005	2006	2007	2008
Average price per ton (Rand)	2,383	1,916	1,763	1,766	1,807
Average yield per hectare (tons)	13.11	13.79	15.34	15.58	16.31
PRODUCER INCOME (R / ha)	31,236	26,424	27,043	27,513	29,479
Direct costs (R / ha)	2,459	2,426	2,391	2,482	2,855
Labour (R / ha)	6,317	6,590	6,878	6,949	6,956
Mechanisation (R / ha)	2,667	2,852	3,004	3,219	3,533
Other overheads (R / ha)	2,778	3,142	3,326	3,367	3,357
ANNUAL CASH EXPENDITURES	14,221	15,010	15,599	16,017	16,702
GROSS MARGIN (R / ha)	17,015	11,414	11,444	11,496	12,777
Provision for replacement (R / ha)	4,779	5,633	5,733	6,108	6,876
NET FARMING INCOME (R / ha)	12,236	5,781	5,711	5,388	5,901
<i>NB: Net Farming Income calculated before interest, tax and remuneration.</i>					
<i>Oranjerivier excluded with the 2004 evaluation.</i>					

Source: Vinpro, 2009

