PHOTO: THYS LOMBARD.

2014 RECORD CROP

VINPRO PRODUCTION PLAN SURVEY (PART 1)

The impact on **primary wine grape producers' financial sustainability**

Primary wine grape producers aligned inputs with wine style objective production practices in order to limit cost increases and apply precision production techniques, thereby realising a record crop for 2014, despite a decreasing surface planted to grapevines. Such were the findings of the VinPro Production Plan Survey, a comprehensive financial survey conducted in the wine industry for the eleventh consecutive year in 2014.

By Pieter van Niekerk & Andries van Zyl

Income generated still does not comply with sustainable target guidelines, but it is nevertheless heartening to observe how certain producers in each of the nine wine districts manage to exceed these guidelines year after year and realise excellent returns, taking into account the risk incurred in the course of the season. Part 1 of the report provides an overview of the most important findings over the past 10 years, with the emphasis on the 2014 production year, followed by the practices of top achievers in Part 2.

INTRODUCTION

VinPro Agricultural Economic Services conducted comprehensive analyses in all nine wine districts with the support of Winetech, the National Agricultural Marketing Council (NAMC), Standard Bank, Absa, Land Bank, FNB, Nedbank and Capital Harvest. The primary objective is still to determine the production structure, cost structure and profitability per district, so as to determine the financial wellbeing of the producers.

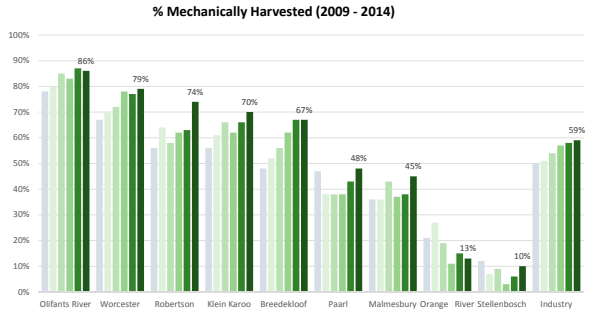

FIGURE 1. Tons per district mechanically harvested.

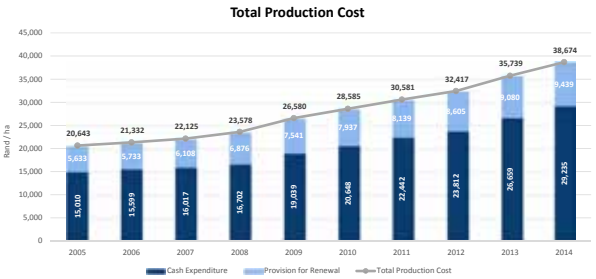

FIGURE 2. Total production cost – industry average.

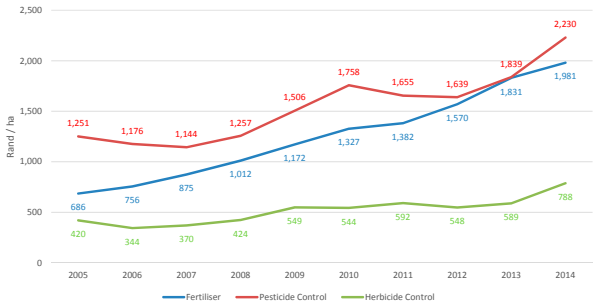

FIGURE 3. Movement of direct cost – industry average.

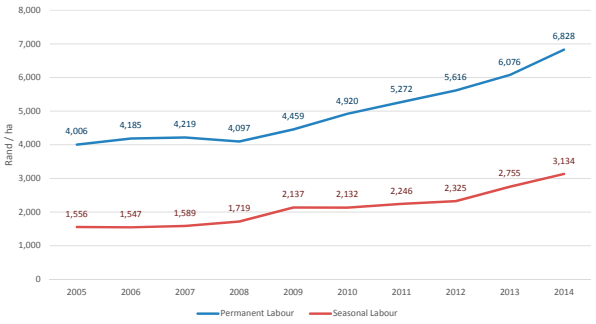

FIGURE 4. Movement of labour cost – industry average.

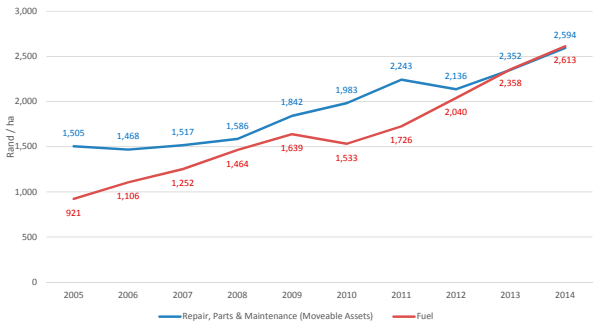

FIGURE 5. Movement of mechanisation cost – industry average.

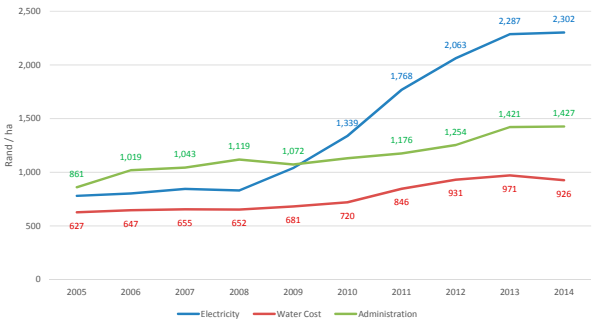

FIGURE 6. Movement of general expenditure – industry average.

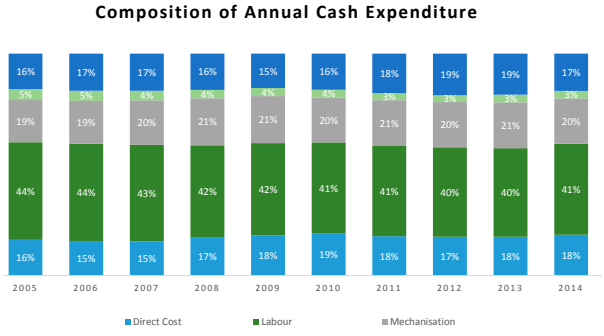

FIGURE 7. Percentage composition of annual cash expenditure – industry average.

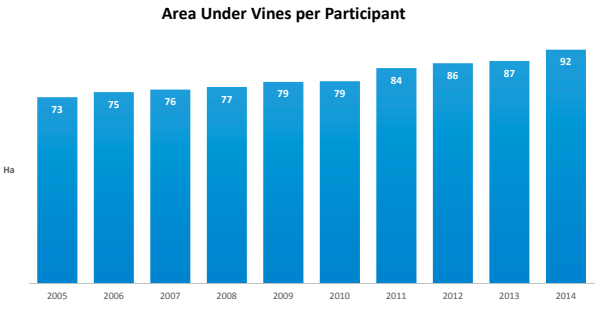

FIGURE 8. Hectares planted to grapevines per participant (bearing and non-bearing hectares) – industry average.

Altogether 236 farming units from nine wine districts participated in the 2014 Production Plan Survey. In 2014 the sample consisted of 22 117 ha (22% of the total South African surface planted to grapevines in 2013), which produced 352 209 tons (24% of the total South African crop in 2014). This consisted of 63% white and 37% red wine grapes, and 59% of the tons were mechanically harvested.

The analysis applies to overall grapevine production (bearing, as well as non-bearing hectares) and the cost analysis makes no distinction between cultivars and specific blocks. The greater majority of participants are diversified and differ with regard to farm size. The report represents industry average figures, calculated by determining the weighted average of all participants. The Malmesbury district is always evaluated separately and does not form part of industry average figures, in view of the fact that this study group cultivates a large component of dryland vineyards, which require an alternative production, cost and capital structure.

THE COST OF WINE GRAPE PRODUCTION

The annual cost incurred to prepare the 2014 crop comprised cash expenditure and provision for replacement, excluding all tax, interest and entrepreneurial remuneration. Compared to 2013 the industry average total production cost (excluding Malmesbury) increased by 8% to R38 674/ha in 2014.

CASH EXPENDITURE

Cash expenditure is specified as direct cost, labour, mechanisation, fixed improvements and general expenses. Total cash expenditure indicates a 10% increase from 2013 to R29 235/ha in the 2014 production year.

The increase is driven mainly by the increased minimum wage – this being the first financial year when it was applied in full – especially in the districts that rely more heavily on seasonal labour. This contributed to the increased mechanisation component, including an increase in alternative practices such as mechanical pruning. The record crop also contributed to the increase, seeing that increased inputs are required to produce wine grapes profitably for a specific wine style objective. The cost component differs among the various areas due to the level of mechanisation, although the total production cost does not differ significantly from one area to the next. Stringent cost management, with a balance between wine style objective and input requirement for each block, remains critical in cycles of sub-inflationary increases in income.

PROVISION FOR RENEWAL

Production cost is not only limited to cash expenditure; capital items also have to be renewed in due course of time so as to maintain the business as a running concern and ensure a sustainable business model. Tractors, tools, other means of production, vineyards and buildings deteriorate and have to be renewed, therefore the purchase value of the item has to be recovered over a specific lifetime. By using the principle 'provision for renewal', a larger amount is recovered than in the case of 'depreciation'. To a certain extent this addresses the problem of rectilinear depreciation in value.

When calculating provision for renewal, items are written off over different periods at renewal value:

Buildings	60 years
Grapevines	20 years
Moveable assets / means of production	7 - 15 years

Total provision for renewal amounted to R9 439/ha in the 2014 production year – a 4% increase from 2013.

PRODUCTION STRUCTURE

The average surface planted to wine grapes was 92 ha – the other enterprises are not taken into account. Economy of scale plays a significant role in the broader agriculture and this trend is increasingly common, with many producers aiming for scale benefits.

TABLE 1. Yield per cultivar per district (2014 harvest).

Yield per cultivar (ton / ha)	*Klein Karoo*	*Robertson*	*Worcester*	*Breedekloof*	*Olifants River*	*Orange River*	*Paarl*	*Stellenbosch*	*Malmesbury*
CHENIN BLANC	22.34	19.47	22.68	21.68	34.43	34.74	15.73	9.08	11.17
COLOMBAR	30.08	21.78	22.68	24.79	36.55	31.80	22.19	13.27	7.89
SAUVIGNON BLANC	18.63	17.57	19.80	21.46	25.27		7.51	11.25	10.50
CHARDONNAY	17.89	14.56	16.18	14.62	17.00	14.53	11.04	8.30	9.17
MUSCAT D'ALEXANDRIE	15.61	18.15	16.23	22.34	20.86	29.76	20.29	2.92	
SÉMILLON		22.63	22.62	24.97	21.96		22.92	14.80	15.09
VIOGNIER		19.63	15.59	17.10			14.80	9.44	8.12
OTHER WHITE	23.71	14.95	21.04	19.24	26.06	21.17	16.87	12.38	17.33
Yield per cultivar (ton / ha)	***Klein Karoo***	***Robertson***	***Worcester***	***Breedekloof***	***Olifants River***	***Orange River***	***Paarl***	***Stellenbosch***	***Malmesbury***
CABERNET SAUVIGNON	12.69	13.38	14.92	12.92	13.71	17.32	9.20	7.73	8.32
SHIRAZ	11.15	12.26	15.43	15.49	14.75	22.91	11.77	10.61	8.49
PINOTAGE	14.48	15.47	15.27	12.40	20.19		10.55	8.52	10.26
MERLOT	15.54	13.23	15.03	16.46	14.90	14.97	13.08	11.47	11.58
RUBY CABERNET	11.45	17.17	15.35	19.46	15.22	27.69	12.87	6.98	
CINSAUT		15.85	22.02	22.70			15.15	7.41	10.34
PINOT NOIR		17.94	8.39	24.16	7.20		13.24	8.34	9.22
OTHER RED		17.91	16.36	11.98	13.63	26.10	13.55	11.12	11.50

The average production for bearing and non-bearing grapevines for the 2014 production year was 17.69 ton/ha. Over the past 10 years it has been an obvious trend that producers attempt to increase average yields to counter the effect of rising costs, as well as to increase profitability.

CULTIVAR STRUCTURE

During the 2014 production year a cultivar analysis was also conducted to indicate the production variance between the most planted white and red cultivars.

BREAK-EVEN

The impact of increased production is significant on the break-even price of the total production cost in rand per ton. Total production cost per hectare, which increased by 8% from 2013, caused the break-even in terms of rand per ton to increase from R2 042/ton to R2 186/ton in 2014. In other words: the first R2 186 for a ton of grapes received by the producer during the 2014 harvest, should be applied for total production cost – no entrepreneurial remuneration, interest or tax has been taken into account yet.

The average yields differ considerably among the districts, as well as among the various cultivars, while the production cost does not differ to the same extent. This gives rise to large differences in break-even price in terms of total production cost in the respective district and among the various cultivars.

PROFITABILITY

The profitability, in other words net farming income (NFI), is calculated as total income (R/ton x ton/ha) minus total

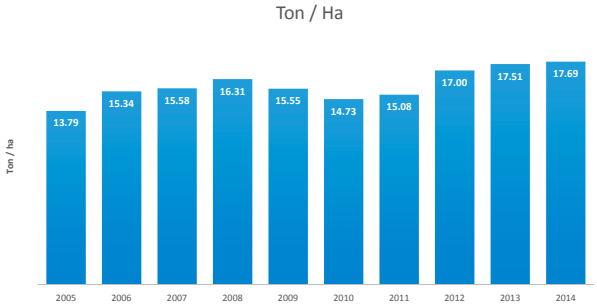

FIGURE 9. Average yield (bearing and non-bearing hectares) – industry average.

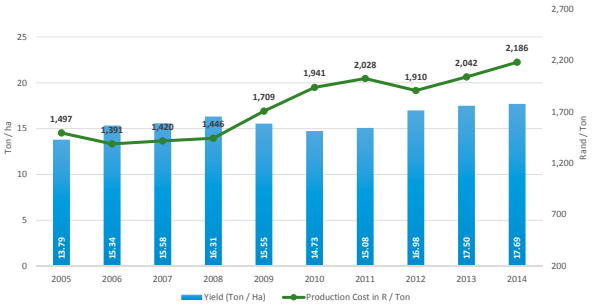

FIGURE 10. Influence of production on break-even of total production cost – industry average.

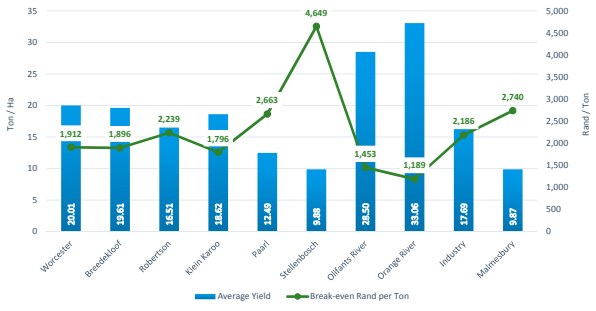

FIGURE 11. Production and break-even per district (2014 harvest).

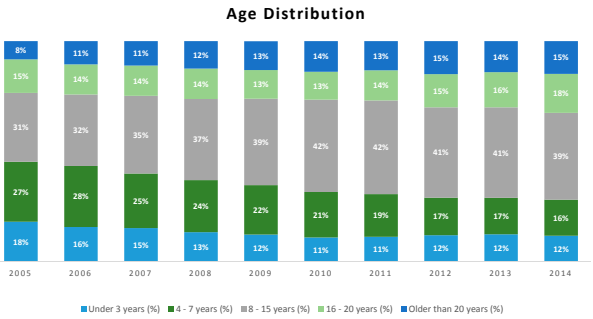

FIGURE 12. Age composition – industry average.

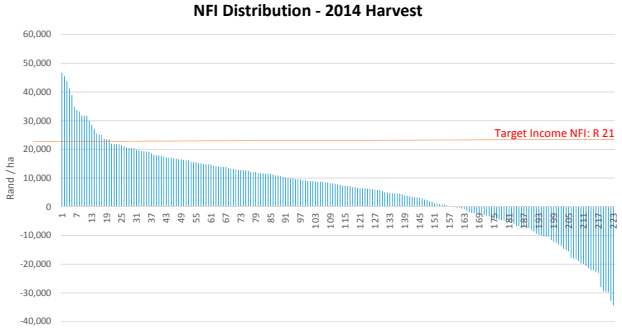

FIGURE 13. S curve.

TABLE 2. Production cost per district – 2014 harvest.

Industry average	*Stellenbosch*	*Paarl*	*Robertson*	*Breedekloof*	*Olifants River*	*Worcester*	
COST STRUCTURE	***RAND PER HA***						
DIRECT COST							
Seed	126	32	64	106	15	115	
Fertiliser	843	1 231	1 830	1 502	2 607	2 425	
Organic Material	45	118	129	1 018	615	200	
Pesticide Control	2 903	2 042	2 414	2 365	1 661	2 474	
Herbicide Control	960	571	1 007	928	415	964	
Repair & Binding Material	457	302	326	396	409	467	
Subtotal	**5 333**	**4 297**	**5 770**	**6 315**	**5 723**	**6 645**	
LABOUR							
Supervision	3 435	1 182	2 208	2 012	1 881	1 143	
Permanent Labour	9 470	6 485	5 385	6 530	5 788	7 000	
Seasonal Labour & Contract Work	5 755	3 572	1 896	1 419	1 602	1 575	
Subtotal	**18 660**	**11 239**	**9 489**	**9 961**	**9 270**	**9 718**	
MECHANISATION							
Fuel	2 504	2 396	2 393	2 510	3 387	2 737	
Repair, Parts & Maintenance	3 126	1 630	3 190	2 433	2 902	2 620	
Lisences & Insurance	521	451	418	486	790	531	
Transport Hired	170	360	167	210	306	74	
Subtotal	**6 321**	**4 837**	**6 168**	**5 639**	**7 385**	**5 962**	
FIXED IMPROVEMENTS							
Repair & Maintenance	1 032	604	559	1 074	500	942	
Insurance	174	182	209	257	237	265	
Subtotal	**1 207**	**787**	**768**	**1 331**	**737**	**1 207**	
GENERAL EXPENDITURES							
Electricity	1 796	1 710	2 975	2 695	2 922	2 528	
Water Costs	715	555	905	203	1 959	1 365	
Land-, Property- & Municipal Taxes	383	218	146	238	272	199	
Administration	2 223	1 566	972	1 101	1 539	1 067	
Subtotal	**5 116**	**4 048**	**4 998**	**4 237**	**6 691**	**5 159**	
TOTAL CASH EXPENDITURES	**36 637**	**25 207**	**27 193**	**27 481**	**29 806**	**28 691**	
PROVISION FOR RENEWAL	**9 296**	**8 058**	**9 771**	**9 706**	**11 601**	**9 564**	
Vineyards	5 379	5 398	5 443	5 510	5 005	5 589	
Fixed Improvements	1 148	666	936	998	1 061	903	
Loose Assets Or Production Means	2 769	1 994	3 392	3 198	5 534	3 073	
TOTAL EXPENDITURES	**45 932**	**33 265**	**36 964**	**37 187**	**41 406**	**38 256**	
AVERAGE AREA PLANTED (HA)	**101**	**101**	**107**	**114**	**56**	**91**	
AREA IRRIGATED (%)	**92%**	**95%**	**100%**	**100%**	**100%**	**99%**	
AVERAGE AGE COMPOSITION (%)							
3 Years & younger	7.83	10.74	13.80	15.40	11.24	15.41	
Between 4 & 7 years	16.80	11.61	19.60	14.44	15.12	18.76	
Between 8 & 15 years	38.58	50.08	33.56	36.53	37.24	35.14	
Between 16 & 20 years	18.32	18.48	18.11	17.90	17.89	14.14	
Older than 20 years	18.47	9.09	14.93	15.70	18.51	16.55	
AVERAGE YIELD (TON PER HA)	**9.88**	**12.49**	**16.51**	**19.61**	**28.50**	**20.01**	
CASH EXPENDITURES (RAND PER TON)	**3 708**	**2 018**	**1 647**	**1 401**	**1 046**	**1 434**	
TOTAL EXPENDITURES (RAND PER TON)	**4 649**	**2 663**	**2 239**	**1 896**	**1 453**	**1 912**	

	Orange River	*Klein Karoo*	*Industry average*	*Malmesbury*
	56	81	75	154
	1 187	1 538	1 591	1 245
	150	310	315	41
	652	1 678	2 230	1 857
	583	360	788	493
	322	398	383	94
	2 950	**4 365**	**5 382**	**3 883**
	2 092	1 359	2 039	848
	6 496	6 089	6 828	4 163
	8 283	1 524	3 134	3 593
	16 871	**8 973**	**12 001**	**8 604**
	2 898	2 471	2 613	2 021
	1 988	2 470	2 594	1 485
	695	379	523	350
	227	218	222	932
	5 809	**5 537**	**5 952**	**4 788**
	427	677	763	424
	408	140	222	108
	836	**817**	**985**	**531**
	1 613	1 463	2 302	721
	1 430	1 843	926	646
	534	159	259	99
	1 206	930	1 427	664
	4 783	**4 395**	**4 914**	**2 130**
	31 249	**24 086**	**29 235**	**19 936**
	8 056	**9 354**	**9 439**	**7 109**
	5 300	5 432	5 388	4 593
	463	661	912	600
	2 293	3 261	3 140	1 916
	39 305	**33 440**	**38 674**	**27 045**
	19	**48**	**92**	**162**
	100%	**100%**	**98%**	**31%**
	4.16	16.53	11.77	9.49
	24.57	14.90	16.32	10.09
	41.54	43.70	39.38	59.07
	17.05	17.86	17.69	16.13
	12.68	7.28	14.85	5.22
	33.06	**18.62**	**17.69**	**9.87**
	945	**1 294**	**1 652**	**2 020**
	1 189	**1 796**	**2 186**	**2 740**

PHOTO: THYS LOMBARD.

TABLE 3. Industry average income and expenditure statement.

INCOME & EXPENDITURE STATEMENT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average price per ton (rand)	2 383	1 916	1 763	1 766	1 807	2 113	2 192	2 383	2 416	2 524	2 682
Average yield per hectare (tons)	13.11	13.79	15.34	15.58	16.31	15.55	14.73	15.08	16.98	17.50	17.69
TOTAL INCOME (R / ha)	**31 236**	**26 424**	**27 043**	**27 513**	**29 479**	**32 857**	**32 281**	**35 943**	**41 023**	**44 171**	**47 456**
minus											
Direct costs (R / ha)	2 459	2 426	2 391	2 482	2 855	3 463	3 920	3 992	4 150	4 670	5 382
Labour (R / ha)	6 317	6 590	6 878	6 949	6 956	7 905	8 477	9 111	9 630	10 639	12 001
Mechanisation (R / ha)	2 667	2 852	3 004	3 219	3 533	4 022	4 142	4 633	4 868	5 501	5 952
Other overheads (R / ha)	2 778	3 142	3 326	3 367	3 357	3 649	4 108	4 706	5 186	5 849	4 914
ANNUAL CASH EXPENDITURES	**14 221**	**15 010**	**15 599**	**16 017**	**16 702**	**19 039**	**20 648**	**22 443**	**23 834**	**26 659**	**29 235**
GROSS MARGIN (R / ha)	**17 015**	**11 414**	**11 444**	**11 496**	**12 777**	**13 818**	**11 633**	**13 500**	**17 189**	**17 512**	**18 221**
minus											
Provision for replacement (R / ha)	4 779	5 633	5 733	6 108	6 876	7 541	7 937	8 140	8 606	9 080	9 439
NET FARMING INCOME (R / ha)	**12 236**	**5 781**	**5 711**	**5 388**	**5 901**	**6 277**	**3 696**	**5 360**	**8 583**	**8 432**	**8 781**

production cost. The latter consists of cash expenditure and provision for renewal, but excludes entrepreneurial remuneration, interest obligations and tax. The total income is calculated for a specific production year and although the majority of producers realise their income at different stages, no time value of money is taken into account.

It is positive to see how total income per hectare increased over the period under review, but above-inflation cost increases exercised pressure on the NFI. For the 2014 production year the average total income amounted to R47 456/ha – almost 7% more than in 2013 – whereas the NFI increased by only 4% to R8 781/ha. As a guideline for economically sustainable production, the average income and NFI for the 2014 production year should in fact have realised R59 874 and R21 200 per hectare respectively.

The average income hampers producers to implement sufficient capital renewal, consequently production occurs on gross margin and not NFI – with the result that producers are still under financial pressure which suppresses long term financial sustainability.

SUMMARY

As a result of the record production, the income from wine grape cultivation has increased – but cost increases, driven especially by the increased minimum wage, has kept NFI below sustainable levels. This has been the cause of increasing mechanisation in the national grapevine plantings with the emphasis on labour productivity, as well as alignment of production practices with the eventual wine style objective. Producers are encouraged to apply stringent cost management and weigh up the benefits of certain vineyard practices and input against the final yield and payments for the season.

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National Agricultural Marketing Council
Strategic positioning of South African Agriculture in dynamic global markets