australian wine grape production

projections to 2008-09



abare research report 07.10

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natalie currey

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ABARE is a professionally independent government economic research agency.

ABARE project 3072

foreword

The Grape and Wine Research and Development Corporation commissioned ABARE to produce wine grape production projections for the three years 2006-07 to 2008-09.

Intake estimates are based on the National Utilisation Project coordinated by the Australian Wine and Brandy Corporation. All wineries across the five major wine producing states were included in the study. Production estimates are made for 27 wine grape producing zones, incorporating 81 regions across Australia. Projections are made for twenty-four specialist wine grape varieties, as well as multipurpose grapes and minor varieties for each region.

The information contained in this report highlights the effects of adverse seasonal conditions, including drought and frost, and lower allocations of irrigation water on wine grape production.

This report and the comprehensive set of regional production tables available on ABARE's website, **abare**economics.com, provide information for both wine grape producers and wine makers to assist them to plan their production programs on the basis of projected grape supply availability, by region and variety.

The intake data in the report were also used as a basis for analysing Australia's current and future wine grape production forecasts published in 'Outlook for wine' in the March 2007 issue of ABARE's quarterly forecasting journal, *Australian Commodities*.



Phillip Glyde
Executive Director
May 2007

acknowledgments

The assistance of the wineries that took part in the National Utilisation Project, in which wineries were surveyed about their committed and required intake of grapes, is gratefully acknowledged. The authors would also like to acknowledge all the state coordinators of the project, Sandy Hathaway of the Phylloxera Board, Stuart McGrath-Kerr of McGrath-Kerr Consultants and ABARE colleagues Walter Shafron and Veronica Rodriguez for their assistance in compiling wine grape intake data. The assistance and contribution of Vince O'Donnell is also acknowledged.

This project is supported by Australia's grape growers and wine makers through their investment in the Grape and Wine Research and Development Corporation, with matching funds from the Australian Government.

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summary

» In this report, estimates are presented of wine grape production in 2005-06 and 2006-07 and projections of production for the years 2007-08 and 2008-09. Production estimates are made for all wine grape producing regions across Australia for the twenty-four specialist wine grape varieties, as well as multipurpose grapes and minor varieties.

wine grape production, 2005-06

» Wine grape production in 2005-06 is estimated to have been 1.87 million tonnes, a decrease of 3 per cent from the record harvest of 2004-05. High temperatures in January 2006 led to lower yields in some areas. However, good winter rainfall and favourable spring weather conditions contributed to above average yields in many regions. Production of red varieties outstripped

production of wine grapes in Australia

	estimated		projected	
	2005-06	2006-07	2007-08	2008-09
	kt	kt	kt	kt
premium white				
chardonnay	432	313	369	474
colombard	79	56	58	76
semillon	102	77	81	100
other	135	89	107	151
total	748	535	615	801
nonpremium white	9	6	7	9
premium red				
cabernet sauvignon	298	179	220	288
merlot	132	83	101	133
shiraz	440	259	338	441
other	94	59	69	89
total	964	580	728	951
nonpremium red	34	21	23	31
total [a]	1 873	1 264	1 503	1 925

a Total includes multipurpose and minor varieties not reported above.

production of white varieties for the sixth consecutive year. Shiraz was the highest tonnage grape variety, followed by chardonnay and cabernet sauvignon.

wine grape production, 2006-07 to 2008-09

- Wine grape production in 2006-07 is estimated to have fallen by 33 per cent to 1.26 million tonnes compared with production in 2005-06. This figure is based on estimated lower yields (around 7.9 tonnes per hectare) resulting from low rainfall, lower allocations of irrigation water and frost damage. The lower yields have been offset slightly by an estimated 5 per cent increase in bearing area, to 160 000 hectares.
- Premium red wine grape production is estimated to have fallen by more than premium white wine grape production in 2006-07, with decreases of 40 per cent and 28 per cent respectively. Chardonnay production is projected to exceed shiraz production in the three vintages from 2006-07 to 2008-09.
- Production in 2006-07 is expected to have declined by more in South Australia than in other states, with an estimated decrease of 43 per cent from 2005-06 to 2006-07. Western Australia is the only state where production in 2006-07 is expected to exceed that of 2005-06. In most zones, with the exception of the Lower Murray in South Australia, it is projected that total wine grape production will begin to increase again in 2007-08.
- Assuming average winter rainfall in 2007, total wine grape production is projected to increase by 19 per cent in 2007-08 to 1.5 million tonnes. However, if there is a repeat of 2006 rainfall this winter, production is projected to be 931 000 tonnes, reflecting low rainfall in cool climate regions and reduced water allocations in warm climate regions. If there are zero water allocations, production will be even lower than this.
- By 2008-09, it is projected that yields will average 11.9 tonnes per hectare, resulting in a harvest of 1.93 million tonnes. This projection is based on the assumption that yields in most regions will return to the five year average. Production of premium red wine grapes is projected to be 915 000 tonnes in 2008-09, while production of premium white wine grapes is projected to be 801 000 tonnes.

1

introduction

The Australian wine industry has expanded rapidly since the mid-1990s (figure A). Over this period the industry has changed from having a domestic focus to become an increasingly export oriented industry. Wine grape production peaked in 2004-05 at 1.94 million tonnes.

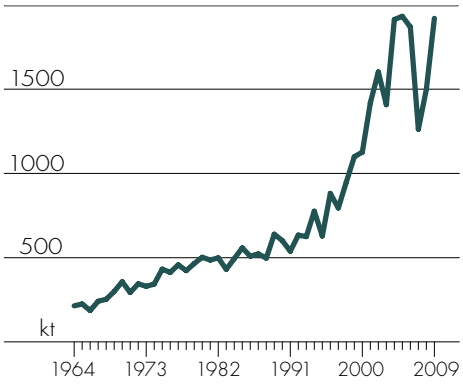
projections to 2008-09

ABARE has been producing projections of Australian wine grape production since 1988 for the Grape and Wine Research and Development Corporation and its predecessor.

In this study, estimates are presented for the previous vintage and the current vintage, together with production projections for 2007-08 and 2008-09. Also included in this report are estimates of winery intake, by variety, from the 2005-06 harvest. Data are presented for twenty-four specialist wine grape varieties, with multipurpose varieties (muscat gordo blanco, sultana and waltham cross) and minor varieties reported as two separate categories. Advice from industry experts was sought about the yields used in this study.

Production projections are made for each region and are aggregated to the zone level (map 1) for the tables in appendix B. The tables for individual regions are available on ABARE's website, **abare**economics.com. In previous years, regional estimates and forecasts were presented using traditional grape growing area boundaries. Since last year ABARE has adopted the geographical indication (GI) regions for this study, in line with the Australian Bureau of Statistics (ABS) and the National Utilisation Project (NUP).

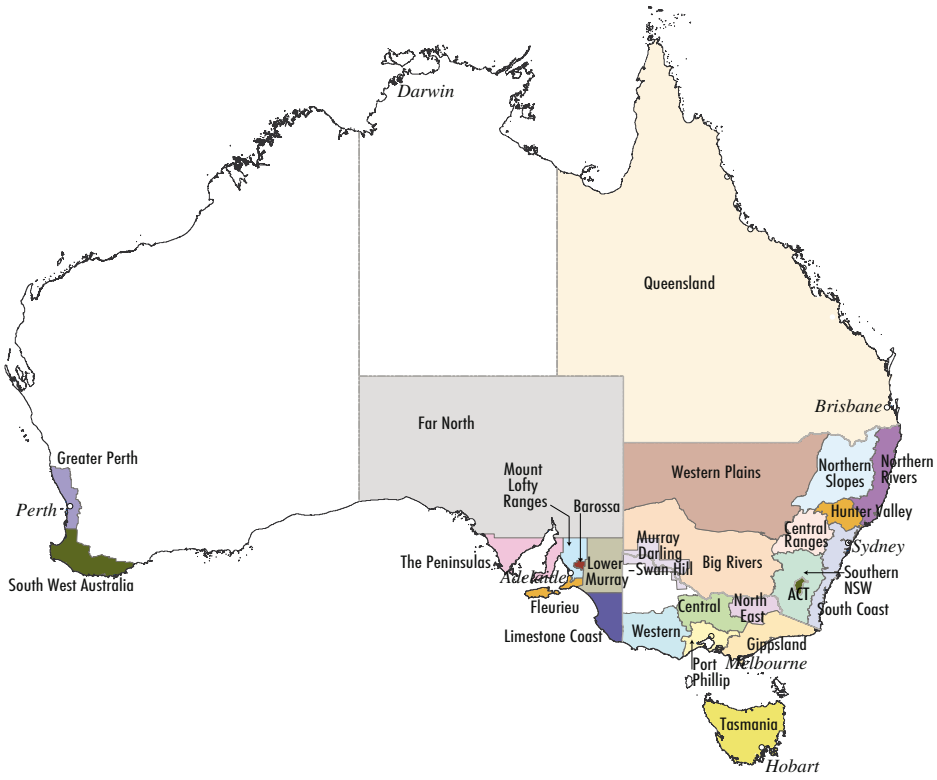
fig A **Australian wine grape production**



industry growth and development

With increasing total wine grape production in recent years, stocks have been increasing and prices for wine grapes declining (Sheales et al. 2006). This has led grape growers to leave more grapes on the vine. The area of red wine grapes left on the vine or dropped to the ground increased by more than 90 per cent from 3600 hectares in 2004-05 to 7000 hectares in 2005-06. The area of white wine grapes left or dropped more than doubled, from 1350 hectares in 2004-05 to 3100 hectares in 2005-06.

map 1 **wine grape zones of Australia**



Using average yields, the estimated quantity of red wine grapes left on the vine or dropped to the ground in 2005-06 was 74 400 tonnes (table 1). For white wine grapes, the estimated quantity was 38 200 tonnes. A higher percentage of red grapes were unharvested, particularly in the Murray Darling – Swan Hill and Lower Murray zones (11 per cent and 9 per cent of total red grape production in each zone respectively).

table 1 **grapes left on the vine or dropped on the ground, 2005-06** a

	red wine grapes		white wine grapes	
	ha	tonnes s	ha	tonnes s
South Australia				
Barossa Valley *	326	2 563	188	1 821
Mt Lofty Ranges *	274	2 046	161	1 320
Fleurieu*	614	6 282	264	2 855
Limestone Coast *	257	2 059	56	685
Lower Murray	1 217	23 408	515	11 732
other	9	50		
total	2 698	36 408	1 184	18 413
New South Wales and ACT				
Hunter Valley*	185	851	132	880
Big Rivers (excl. Murray Darling)	276	4 087	120	2 087
Central Ranges*	245	1 867	103	977
other *	194	1 238	78	553
total	900	8 043	433	4 497
Greater Victoria				
Central*	175	984	37	269
North East*	182	1 482	45	367
Port Phillip*	164	870	75	468
other *	113	425	27	136
total	633	3 762	184	1 242
Murray Darling – Swan Hill	1 546	21 082	1 021	12 440
Western Australia *	1 102	4 729	227	1 510
Tasmania *	19	102	11	63
Queensland *	104	285	56	70
grand total	7 003	74 410	3 115	38 234

a Columns may not add due to rounding. **s** ABARE estimate.* Cool climate region.

wine grape prices

Australian wine grape prices decreased further across most varieties in 2005-06 compared with the previous year. Most notable was the fall in the average white wine grape price, with decreases of 26 per cent in warm climate regions and 13 per cent in cool climate regions (figure B). The average red wine grape price also fell, with decreases of 12 per cent in warm climate regions and 9 per cent in cool climate regions (figure C).

The change in prices varied across regions and varieties. For example, the average price for chardonnay grapes fell by more than the price for most other varieties in 2005-06, with a decrease of 38 per cent in warm climate regions and 22 per cent in cool climate regions.

It is estimated that wine prices averaged $379 a tonne in 2005-06 in warm climate regions, and $1011 a tonne in cool climate regions, with little difference in the average prices of red and white grapes.

fig B **average Australian white wine grape price**

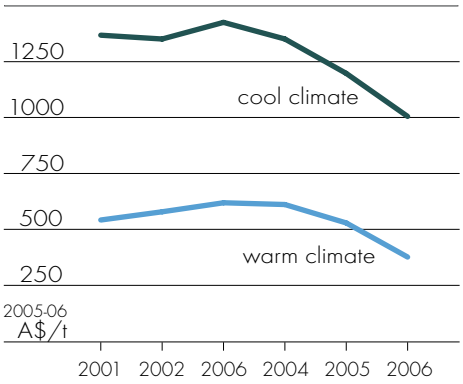
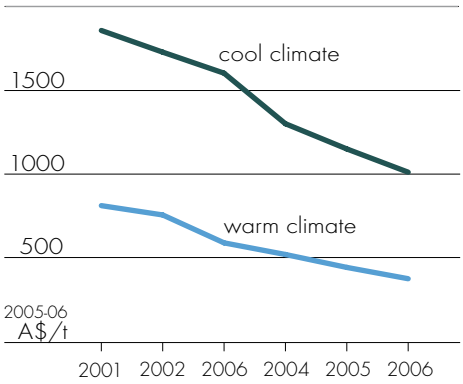


fig C **average Australian red wine grape price**



2

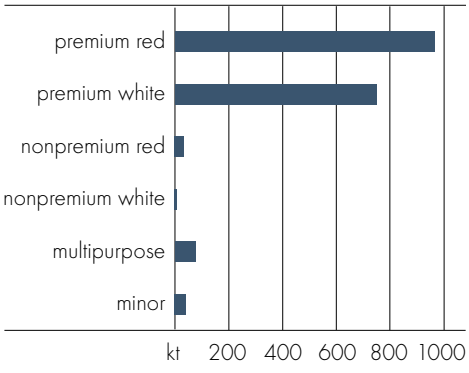
wine grape supply projections to 2008-09

wine grape production, 2005-06

Production in 2005-06 is estimated to have been 1.87 million tonnes (table 2). Good winter rainfall and favourable spring weather conditions contributed to above average yields in many regions. However, above average temperatures throughout South Australia and Victoria in late January 2006 limited yield potential and led to an earlier harvest for some growers, with the crop down 3 per cent on the 2004-05 record crop of nearly 1.94 million tonnes. The estimated decrease in production was a result of slightly lower average yields (around 12.4 tonnes per hectare), with little change in bearing area.

Production of premium white wine grapes in 2005-06 was slightly higher than the previous harvest, at nearly 750 000 tonnes (figure D). The increase in production was a result of a larger bearing area, offset slightly by a decrease in yields compared with the previous year. Production of chardonnay, the main white variety produced, increased by 4 per cent to 432 000 tonnes in 2005-06. This increase stemmed primarily from a near 4 per cent increase in the bearing area of chardonnay, to 30 670 hectares in 2005-06 (table 3). In contrast, production of colombard, riesling and sauvignon blanc all fell (by 4–9 per cent), while production of semillon remained similar to the previous year.

fig D **wineries' intake of wine grapes, by category, 2005-06**



Premium red wine grape production decreased by around 4 per cent to 964 000 tonnes, but still accounted for over half of total wine grape production. The production of each main variety also decreased slightly, in line with this. This fall reflected a

table 2 **estimated intake and projected wine grape production in Australia, by variety** [a]

	estimated intake		estimated production	projected production	
	2004-05	2005-06	2006-07	2007-08	2008-09
	kt	kt	kt	kt	kt
premium white					
chardonnay	415	432	313	369	474
chenin blanc	13	11	11	8	10
colombard	83	79	56	58	76
muscadelle	1	1	1	1	1
pinot gris	4	9	6	9	17
riesling	45	41	23	31	41
sauvignon blanc	44	42	29	36	51
semillon	101	102	77	81	100
traminer	10	11	8	6	10
verdelho	19	20	14	15	18
total	734	748	535	615	801
nonpremium white					
crouchen	2	2	1	2	2
doradillo	2	2	1	1	2
palomino	1	1			1
trebbiano	5	4	3	4	4
total	10	9	6	7	9
premium red					
cabernet franc	4	3	2	3	3
cabernet sauvignon	308	298	179	220	288
malbec	3	3	2	2	3
merlot	146	132	83	101	133
petit verdot	25	25	17	17	22
pinot noir	41	34	20	27	35
ruby cabernet	34	28	19	20	25
shiraz	446	440	259	338	441
total	1 007	964	580	728	951
nonpremium red					
grenache	26	23	14	15	21
mataro	10	11	7	7	10
total	35	34	21	23	31
multipurpose	93	77	78	77	76
minor varieties	57	41	44	54	57
wine grapes total					
red	1 071	1 024	623	780	1 013
white	867	849	641	723	912
total	1 937	1 873	1 264	1 503	1 925

a Columns may not add due to rounding.

slight decrease in yields for most varieties, as bearing areas remained relatively unchanged.

The apparent downward trend in the intake of multipurpose grapes for wine continued, with a 17 per cent drop in 2005-06 (table 2). The intake of minor varieties fell by 28 per cent, to 41 000 tonnes. Bearing areas for minor varieties and multipurpose grapes also declined in 2005-06 (table 3).

table 3 **wine grape bearing areas in Australia, selected varieties**

	estimated		projected	
	2005-06 '000 ha	2006-07 '000 ha	2007-08 '000 ha	2008-09 '000 ha
premium white				
chardonnay	30.67	31.79	32.63	33.34
colombard	2.83	2.88	2.90	2.95
pinot gris	1.08	1.10	1.22	1.65
riesling	4.41	4.45	4.52	4.60
sauvignon blanc	3.93	4.00	4.13	4.41
semillon	6.20	6.25	6.32	6.48
total	52.32	53.69	54.94	56.70
nonpremium white	0.55	0.55	0.55	0.56
premium red				
cabernet sauvignon	30.18	30.31	30.47	30.58
merlot	11.39	11.50	11.58	11.89
petit verdot	1.49	1.50	1.53	1.54
pinot noir	3.97	4.00	4.04	4.11
ruby cabernet	1.50	1.50	1.50	1.50
shiraz	40.58	41.04	41.79	42.38
total	89.98	90.72	91.79	92.88
nonpremium red	2.77	2.79	2.80	2.82
multipurpose	3.30	4.75	4.30	3.36
minor varieties	3.56	7.52	6.32	5.46
total	152.48	160.02	160.71	161.76

estimated wine grape production, 2006-07

Wine grape production in 2006-07 is estimated to have fallen by 33 per cent, to 1.26 million tonnes (table 2). This figure is based on estimated lower yields, averaging 7.9 tonnes per hectare. Frost damage, low rainfall, reduced water allocations and smaller grape bunches have all contributed to the reduced harvest. The estimated bearing area of 160 000 hectares in 2006-07 is 5 per cent greater than the 152 000 hectares in 2005-06.

Production of premium red grapes is estimated to have dropped by 40 per cent (table 2), despite a slight increase in bearing areas. Average lower yields mean that production of all varieties is expected to have fallen, with shiraz estimated to have fallen by 41 per cent, cabernet sauvignon by 40 per cent and merlot by 37 per cent.

Production of premium white wine grapes is estimated to have fallen by 28 per cent, despite a small increase in bearing areas. Production of chardonnay, which accounts for over half of premium white wine grape production, is estimated to have dropped by 28 per cent. Production of other major varieties is also expected to have declined, with semillon production estimated to have fallen by 25 per cent and colombard production by 29 per cent.

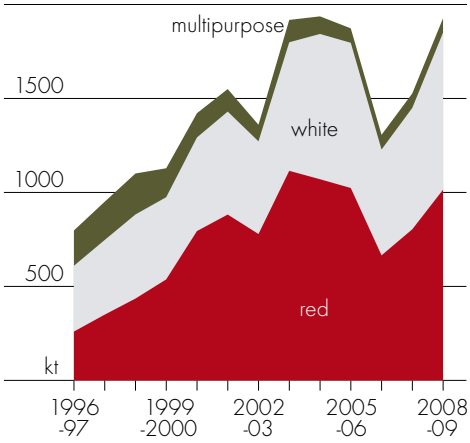
projected wine grape production, 2007-08 and 2008-09

Assuming average rainfall in winter 2007, total wine grape production is projected to increase in 2007-08 to 1.5 million tonnes, and to increase further to 1.93 million tonnes in 2008-09, close to the record production in 2004-05. The projected lower grape production in 2007-08 than in 2008-09 is based on the expectation that the effects of frost damage in some cooler climate areas will still be felt. Yields are projected to remain below average in 2007-08, at 9.4 tonnes per hectare, while the bearing area is projected to increase to 161 000 hectares.

If there is a repeat of 2006 rainfall this winter, production in 2007-08 is projected to be 931 000 tonnes, with average yields of 5.8 tonnes per hectare. This projection incorporates an effect of low rainfall in cool climate regions, which are less reliant on irrigation, and reduced water allocations in warm climate regions. At the time that yields were estimated, if there was a repeat of 2006 rainfall, water allocations were expected to be reduced by around 65 per cent in the Riverland, 30 per cent in the Riverina, 40 per cent in the Murray Darling – Swan Hill region

of New South Wales and 30 per cent in the Murray Darling – Swan Hill region of Victoria. Clearly, if it eventuates that there are zero water allocations in the Murray Darling Basin in 2007-08, production will be even lower. The extent of any further production fall would be partly dependent on rainfall received during the growing season.

fig E **Australian wine grape production, by category**



Bearing areas for specialist wine grapes are projected to increase each year. It is assumed that yields will return to 11.9 tonnes per hectare in 2008-09, based on five year average yields for most regions. This return to average yields, combined with an increase in bearing area, is projected to lead to a 28 per cent increase in production from 2007-08 to 2008-09.

It is expected that both red and white wine grape production will fall in 2006-07, followed by a gradual return to previous production levels in the following years (figure E). It is projected that the intake of multipurpose grapes for wine will change little over the next few vintages.

Since 1999-2000, production of premium red wine grapes has been greater than the production of premium white wine grapes (figure F). However, it is estimated that production levels will have largely converged in 2006-07, with the production of premium red wine grapes being only slightly above that of premium white wine grapes. This mainly reflects the frosts in 2006-07, which had a greater impact on red wine grapes because a larger proportion are grown in cool climate areas than of white wine grapes.

fig F **Australian premium and total wine grape production**

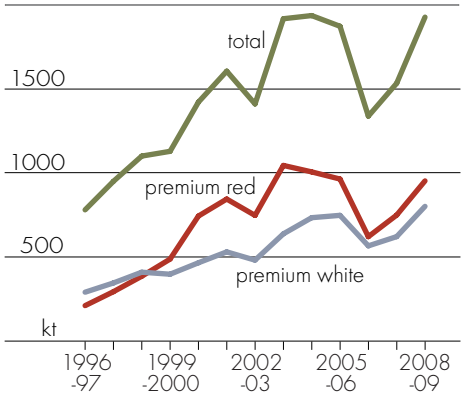


fig G **Australian production of selected white varieties**

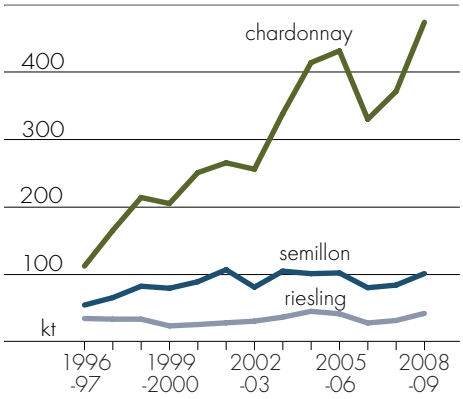
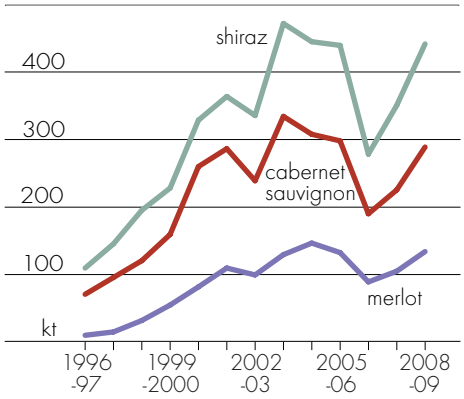


fig H **Australian production of selected red varieties**



Bearing areas of premium white wine grapes increased by more than the area for red wine grapes, which is also a contributing factor.

Production of major varieties all show a similar trend of lower production in 2006-07, followed by an expected increase in production in 2008-09 (figures G and H). However, production of chardonnay is expected to increase by more than the production of other varieties, with projected production in 2008-09 exceeding production in earlier years. This rise primarily reflects a projected increase in the bearing area of chardonnay of nearly 9 per cent between 2005-06 and 2008-09.

estimated and projected production, by zone

Wine grapes are grown in all states of Australia, with South Australia being the dominant wine producing state. The tables in appendix B provide production projections for each zone, by variety. The production projections for 2007-08 and 2008-09 are based on the assumption of average winter rainfall in 2007 and 2008.

Production in 2006-07 is estimated to have fallen by more in South Australia than in other states, with an estimated decrease of 43 per cent from 2005-06 to 2006-07. Western Australia is the only state where production in 2006-07 is estimated to have exceeded that of 2005-06.

In most zones, it is projected that total wine grape production will begin to increase again in 2007-08 (table 4). However, for the Lower Murray zone in South Australia it is expected that production will be lower in 2007-08 than in 2006-07. Production in the Riverland region (which makes up the majority of the Lower Murray zone) is projected to fall because of the reduced availability of irrigation water.

table 4 **specialist wine grape production in Australia, by zone**
premium and nonpremium wine grapes only

	estimated		projected	
	2005-06	2006-07	2007-08	2008-09
	kt	kt	kt	kt
South Australia				
Barossa Valley *	91	44	72	91
Mt Lofty Ranges *	65	26	50	64
Fleurieu*	144	88	99	138
Limestone Coast *	130	41	65	131
Lower Murray	431	292	256	391
other	1	1	2	2
total	862	492	544	817
New South Wales and ACT				
Hunter Valley*	25	21	21	24
Big Rivers (excl. Murray Darling)	289	221	258	312
Central Ranges*	54	32	44	55
other *	15	11	14	14
total	384	285	337	406
Greater Victoria				
Central*	28	14	24	29
North East*	23	11	20	24
Port Phillip*	21	10	20	22
other *	7	4	5	7
total	79	52	69	82
Murray Darling – Swan Hill	366	263	344	399
Western Australia *	55	56	67	77
Tasmania *	5	5	6	7
Queensland *	4	3	4	4
total specialist wine grapes	1 755	1 143	1 372	1 792

* Cool climate zones.

production in cool and warm climate regions

Premium wine grape production is estimated to decrease more (in percentage terms) in cool climate regions than in warm climate regions in 2006-07. Premium white wine grape production is estimated to fall by 40 per cent in cool climate regions and 24 per cent in warm regions (figure I). Similarly, premium red wine grape production is estimated to decline by 49 per cent in cool regions and 33 per cent in warm regions (figure J). Production in cool climate regions was affected by late spring frosts in much of south east Australia.

Production is expected to begin to recover in both warm and cool climate regions in 2007-08. However, production in warm climate regions is expected to recover less, primarily because of lower water allocations. For premium white wine grapes it is projected that production will increase by 28 per cent in cool climate regions and by only 7 per cent in warm regions, compared with the low levels of production in 2006-07. For premium red grapes it is projected that production will increase by 43 per cent in cool regions and 15 per cent in warm regions.

By 2008-09 it is projected that premium white wine grape production in both warm and cool regions will have returned to 2005-06 levels (but production in cool climate regions will still be below the record production of 2004-05). For premium red grape production it is expected that production in cool climate areas will return to 2005-06 levels by 2008-09, while in warm climate regions production will still be lower than in 2005-06.

fig I **Australian production of premium white wine grapes**

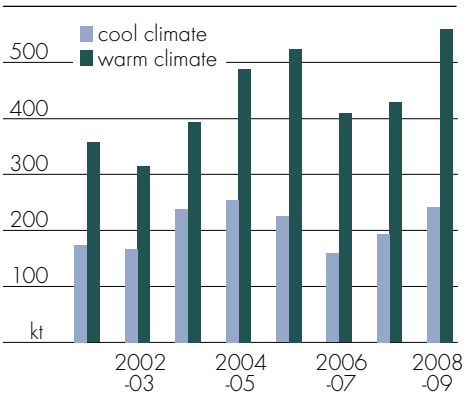
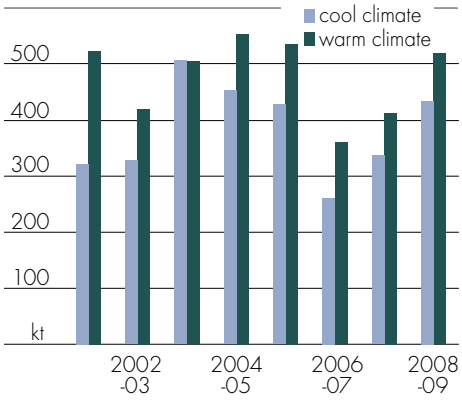


fig J **Australian production of premium red wine grapes**



3

wineries' required intake of wine grapes to 2008-09

Industry estimates of the required intake of wine grapes were obtained through the 2006 *Australian Regional Winegrape Crush Survey*, which is coordinated by the Australian Wine and Brandy Corporation and forms part of the National Utilisation Project. The data reflect wine makers' projections of domestic and export demand for Australian wine, as well as their contractual arrangements and expected capacity to obtain, process and market their products.

In previous years the wineries were asked to provide data on preferred and expected intake. Historically there were not enough wine grapes to meet demand, so the preferred intake exceeded the expected intake. With the more recent large supply of wine grapes relative to demand, this has become less relevant and wineries were instead asked to provide data on their committed intake as well as their required intake. The latter reflects the demand for wine grapes and is comparable to the preferred intake from previous years.

required intake by wineries, 2005-06 to 2008-09

As part of the *Australian Regional Winegrape Crush Survey*, wineries were asked to provide data on their required intake. The required intake refers to the tonnage of grapes that wineries expect to crush or have crushed, taking into account any supply restrictions and expected market purchases.

The required intake for wineries is projected to decrease by 11 per cent from 1.84 million tonnes in 2005-06 to 1.63 million tonnes in 2006-07 (table 5). The intake for premium red grapes is expected to decrease by more than the intake for premium white grapes in 2006-07, with decreases of 15 per cent and 8 per cent respectively.

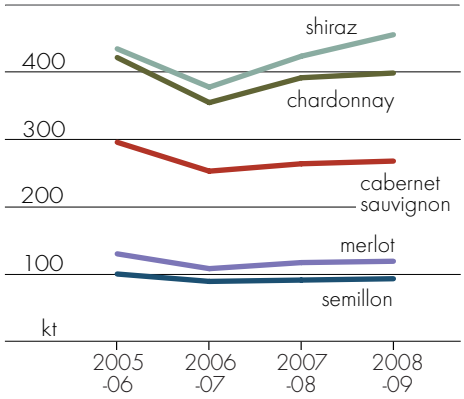
The required intake is expected to then increase for most wine grape varieties in 2007-08 and 2008-09. Over this period, total intake is expected to increase from 1.63 million tonnes in 2006-07 to 1.83 million tonnes in 2008-09. This is still below the intake in 2004-05 of 1.86 million tonnes and in 2005-06.

table 5 **actual and required wine grape intake in Australia, by variety** [a]

	actual intake		required intake			change 2006-07
	2004-05	2005-06	2006-07	2007-08	2008-09	to 2008-09
	kt	kt	kt	kt	kt	%
premium white						
chardonnay	403	422	355	392	399	12
chenin blanc	12	11	9	9	9	-1
colombard	83	79	80	86	94	17
muscadelle		1				2
pinot gris	5	9	19	29	33	72
riesling	46	40	37	39	40	8
sauvignon blanc	41	41	56	58	60	8
semillon	97	100	89	91	93	4
traminer	10	11	10	11	11	7
verdelho	18	18	16	17	17	5
total	716	733	672	733	757	13
nonpremium white						
crouchen	2	2	2	2	2	3
doradillo	1	2	1	1	1	-10
palomino	1	1	1	1	1	13
trebbiano	6	4	2	2	2	1
total	10	9	6	6	6	2
premium red						
cabernet franc	4	3	2	1	1	-2
cabernet sauvignon	288	296	253	264	268	6
malbec	3	4	2	2	2	-2
merlot	141	130	108	117	119	10
petit verdot	25	25	14	14	14	-3
pinot noir	36	32	41	41	41	-2
ruby cabernet	33	27	13	13	13	-3
shiraz	433	435	378	424	456	21
total	963	951	811	876	914	13
nonpremium red						
grenache	25	23	15	17	17	11
mataro	9	11	6	6	6	-5
total	34	34	21	23	23	7
multipurpose	91	77	78	77	76	-3
minor varieties	40	41	44	54	57	29
total	1 856	1 844	1 633	1 769	1 833	12

a Columns may not add due to rounding.

fig K **required intake of selected varieties in Australia**



Required intake differs by variety, with shiraz intake increasing by more than most other major varieties (figure K).

Required intake of premium white wine grapes as a proportion of total wine grapes is forecast to increase slightly, to around 41 per cent by 2008-09, while the intake of premium red wine grapes is projected to decrease to just under 50 per cent.

After the lower expected intake in 2006-07, the intake of shiraz is projected to increase by 21 per cent between 2006-07 and 2008-09. In this same period chardonnay intake is projected to increase by 12 per cent and cabernet sauvignon by 6 per cent.

Wine makers are not planning to reduce intake of multipurpose varieties by much over the next three vintages. The projected intake of 76 000 tonnes in 2008-09 is little different from the estimated intake of 77 000 tonnes in 2005-06.

A appendix

method

projection procedure

The projections of wine grape production contained in this report are generated from estimates of yields and wine grape bearing areas. Projections are made for up to 47 different varieties of wine grapes in each of 89 wine regions in Australia. These wine regions are defined by the Australian Bureau of Statistics (ABS), which collects detailed statistics on the Australian grape growing industry each year from wine grape growers (ABS 2006). The ABS collection provides essential information about the current state of Australian viticulture that is integral to the projections of future wine grape production reported here.

Every year the ABS collects data for each grape variety on the grape bearing area, nonbearing area and the quantity harvested for specific purposes like wine making and drying. Information is also obtained about the amount of the nonbearing area that was planted or grafted-on in the previous twelve months as well as the nonbearing area that was more than a year old.

As grapes are perennial, the bearing area of grapes next year is determined mostly by the area of grape vines that are currently bearing fruit. It is also affected by the area of grapes planted or grafted-on in previous years that will bear fruit next year (a portion of the current nonbearing area). In addition, it is possible that growers might take grape vines permanently out of production between the current and next year's harvest, a practice known as grubbing. Based on this basic understanding of viticulture, the following model was formulated to estimate future production:

$$G_i proj_{t+1} = (BA_{i,t} + PL_i proj_{t-k} - RM_i proj_{t+1}) * Y_i proj_{t+1}$$

Where $G_i proj_{t+1}$ is projected production of grape variety i, next year; $BA_{i,t}$ is the current bearing area; $PL_i proj_{t-k}$ is the portion of the current nonbearing area that was planted or grafted-on in an earlier year $t-k$, but is projected to be bearing next harvest ($k = 3$ for warm climate regions and $k = 4$ for cool climate regions); $RM_i proj_{t+1}$ is the projected area of vines of grape variety i that will be removed or grubbed next year, and $Y_i proj_{t+1}$ is the estimate of next year's yield per hectare for wine grape variety i. The portion of the current nonbearing area that is expected

to come into bearing in the future is determined by estimating an age profile of the current nonbearing area that is more than one year old – that is, the area that was not planted (or grafted-on) last year.

The age profile of the nonbearing area that is two years of age and older is assumed to reflect the relative size of new plantings (and grafting-on) over recent years. For the cool climate regions it is assumed that it takes four years for newly planted vines to reach a commercially bearing age, while in the warm inland regions it is assumed to take three years. Hence, for warm climate regions, for example, the proportion of each variety planted two, three and four years ago of total plantings over that period is used to apportion the total nonbearing area that is currently reported to be at least two years old. The apportioned areas provide estimates of PL_iproj_{t+k}, the areas that are to become bearing in the future. For cool climates the plantings of each variety two, three, four and five years previously would be used in a similar manner to that for the warm climate regions to determine the additions to bearing area in the future.

Ideally, the area grubbed next year should be subtracted from the bearing area. However, given the very small area of grapes that have historically been grubbed or grafted-off according to ABS data, and that future decisions by growers to grub are too difficult to estimate with any objectivity, they were assumed to be zero and excluded from the projections model.

According to the above model, given that the most recent historical data are for 2005-06 (the 2006 harvest), projected wine grape production for each variety in 2006-07, for example, is calculated as the sum of 2005-06 bearing area and the portion of nonbearing area reported in 2005-06 that is expected to reach commercial bearing in 2006-07 (four years old in cool climate and three years old in warm climate regions), multiplied by the projected yield in 2006-07. To project grape production for the following year, 2007-08, the area expected to become bearing in 2007-08 is added to the estimate of the bearing area in 2006-07 and the total area multiplied by the projected yield.

calibration

While the ABS viticulture census is the only official source of statistics on grape bearing area, there are other sources that report estimates of wine grape production. The viticulture census collects data on grape production for wine making from growers, while the *Australian Regional Winegrape Crush Survey*, which is conducted under the National Utilisation Project (NUP) and coordinated by the

Australian Wine and Brandy Corporation, collects estimates from the wineries of the quantity of grapes crushed for wine making, by variety and 'geographical indication' (GI) region. A 'geographical indication' is an official industry description that is similar to the 'appellation' system used in Europe but less restrictive in terms of viticultural and wine making practices.

The NUP estimate of the Australian wine grape crush, which has been consistently higher each year than production estimates reported by the ABS viticulture census, is regarded by the wine industry to be the more accurate measure of wine grape production. In 2005-06, the NUP intake estimate is around 4 per cent higher than the production estimate reported by the ABS viticulture census. At the GI region and variety level however, the two measures of grape production are often inconsistent, and it is not uncommon that the ABS viticulture census reports the production of grape varieties that are absent in the NUP. Typically, the latter grape varieties are much less important than other varieties in contributing to total production in a region.

As the NUP data are considered to be more accurate, they are used as the benchmark for wine grape production of each variety in every GI region. Hence, where the ABS and NUP report production of a grape variety in a GI region, the historical ABS bearing area data ($BA_{i,t}$) is calibrated to ensure that wine grape production by variety in each region is equal to the NUP winery intake figure. In cases where individual grape varieties are recorded by the ABS in a GI region but are missing in the NUP, the original ABS bearing areas are included in the projection model.

In contrast, the ABS statistics for nonbearing area and plantings plus grafted-on area are not calibrated to the NUP data because they do not affect the current bearing area and therefore should be totally unrelated to the NUP estimates of current production or winery intake.

The production of multipurpose and minor variety grapes (see tables) that are projected using the model are replaced with estimates, reported in the *Australian Regional Winegrape Crush Survey*, of the required intake by wineries of each grape variety in every GI region. Since multipurpose and minor grape varieties are commonly used for purposes other than making wine, model projections of the production of these types of grapes would typically far exceed their use for wine. Consequently, estimates of wineries requirements for multipurpose and minor grape varieties, which more closely reflect expected demand for such grapes, are considered to provide more accurate estimates of their production for wine

making. In effect this approach assumes that the quantity of multipurpose and minor grapes available for other purposes, such as drying and fresh table sales, is a residual after winery demand for multipurpose grapes is met.

Industry experts provided the yields that were used to project production. Historical yield data for each variety of grape for the previous five harvests and the average yield for that five year period were provided as base information to the industry experts for every ABS region of relevance. These experts then provided their own estimates of yield for the 2006-07 harvest and each of the projection years on the assumption that there would be average winter rainfall in their regions and irrigation catchment areas following the 2007 harvest. It was not uncommon that industry experts expected the yields at the end of the projection period to be similar to the five year average yield.

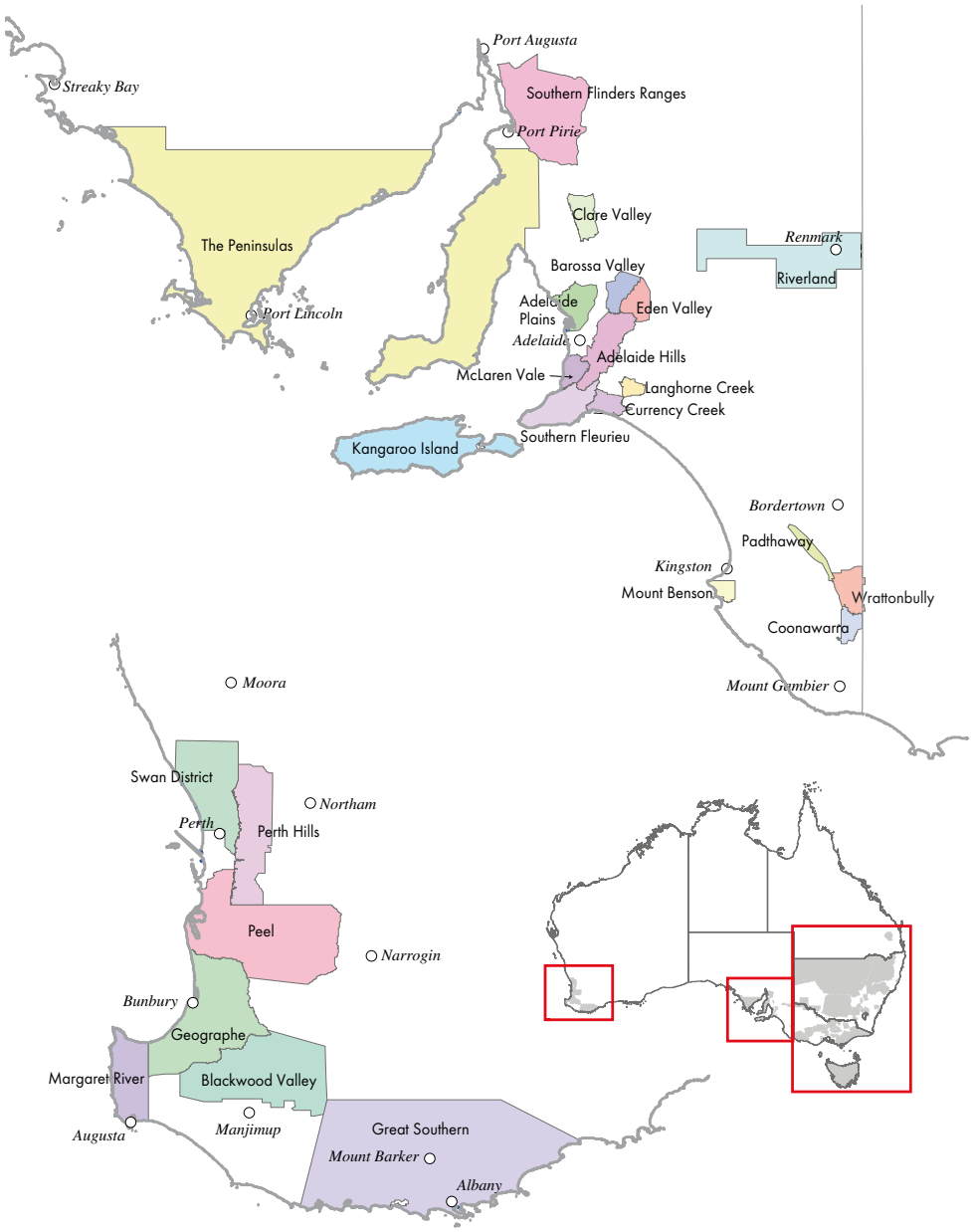
With seasonal conditions in 2006 adversely affecting grape production and the possibility of a continuation of drought conditions in 2007, industry experts were also asked to estimate grape yields if there was a repeat of 2006 rainfall in the winter of 2007, and no frosts. In many regions the yields estimated were lower than any recorded between 2001 and 2006, according to ABS viticulture census data. These yields were then applied to the projected 2007-08 bearing area for each premium and nonpremium wine grape variety to generate an estimate of Australian wine grape production.

aggregation of regional projections

For reporting purposes, the projections of wine grape production are presented at the Australian, and the GI zone and region level. The vast majority of ABS regions are identical to the GI regions but in some cases the ABS collect data at a more disaggregated subregional level, the latter more typical where GI regions or zones cross state borders.

In these instances, ABS region projections were aggregated to the GI region (zone) level; in some instances, like the Murray Darling–Swan Hill GI, the GI zone is also the region. As a result, the 89 ABS regions used in the projections model, become aggregated into 81 GI regions (zones). The tables for wine grape production by GI zone that are presented in appendix B, are simply aggregations of the projections generated at the GI region (zone) level. Projections of wine grape production, by variety, for each of the 81 GI regions (map 2) can be accessed from ABARE's website, **abare**conomics.com.

map 2 **wine grape regions of Australia – South Australia and Western Australia**



map 2 wine grape regions of Australia – Queensland, New South Wales, the ACT, Victoria and Tasmania



B appendix

wine grape production, by variety and zone

Production for each zone is presented in tables 6–31. The zones used in this report are based on the zones defined in the National Utilisation Project. The table below lists the zones and the regions in each zone. Tasmania and Queensland each have only one zone. The Murray Darling – Swan Hill zone is located in both Victoria and New South Wales.

wine grape zones and regions of Australia

	zone	region
Murray Darling – Swan Hill		
New South Wales	Big Rivers (excl. Murray Darling)	Perricoota Riverina other
	Western Plains	
	Central Ranges	Cowra Mudgee Orange other
	Southern NSW	Canberra District Gundagai Tumbarumba Hilltops other
	South Coast	Shoalhaven Coast Southern Highlands other
	Northern Slopes	
	Northern Rivers	Hastings River other
	Hunter Valley	Hunter other

wine grape zones and regions of Australia *continued*

	zone	region
Queensland		Granite Belt South Burnett other
Greater Victoria	North East Victoria	Alpine Valleys Beechworth Glenrowan Rutherglen other
	Central Victoria	Bendigo Goulburn Valley Heathcote Strathbogie Ranges Upper Goulburn other
	Western Victoria	Grampians Henty Pyrenees other
	Port Phillip	Geelong Macedon Ranges Mornington Peninsula Sunbury Yarra Valley other
	Gippsland	
South Australia	Mount Lofty Ranges	Adelaide Hills Adelaide Plains Clare Valley other
	Barossa	Barossa Valley Eden Valley other
	Fleurieu	Currency Creek Kangaroo Island Langhorne Creek McLaren Vale Southern Fleurieu other

wine grape zones and regions of Australia *continued*

	zone	region
	Limestone Coast	Coonawarra Mount Benson Padthaway Wrattonbully other
	Lower Murray	Riverland other
	The Peninsulas	
	Far North	Southern Flinders Ranges
Western Australia	Greater Perth	Perth Hills Swan District Peel other
	South West Australia	Blackwood Valley Geographe Great Southern Margaret River other
	WA other	
Tasmania		
Australian Capital Territory		

table 6 **wine grape production – Murray Darling – Swan Hill zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	347	243	312	236
		cabernet sauvignon	66 634	47 144	61 091	64 170
		malbec	67	47	60	86
		merlot	31 427	22 170	28 593	30 512
		petit verdot	3 468	2 431	3 119	2 685
		pinot noir	2 550	1 781	2 291	2 761
		ruby cabernet	4 272	2 995	3 850	4 573
		shiraz	65 599	46 719	60 935	69 405
		total	174 368	123 533	160 255	174 431
	white	chardonnay	136 030	100 242	132 449	160 420
		chenin blanc	1 041	729	936	1 139
		colombard	26 763	18 883	24 438	28 369
		muscadelle (tokay)	2	1	2	3
		pinot gris	2 022	1 421	2 128	4 219
		riesling	2 431	1 714	2 228	3 130
		sauvignon blanc	5 788	4 076	5 521	9 491
		semillon	12 307	8 783	11 695	12 384
		traminer	341	240	305	500
		verdelho	1 308	916	1 178	1 196
		total	188 038	137 009	180 885	220 857
nonpremium	red	grenache	1 128	791	1 013	1 057
		mataro (mourvedre)	392	212	273	297
		total	1 520	1 004	1 286	1 355
	white	crouchen	1 739	1 220	1 577	1 871
		doradillo	41	29	37	66
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	1 781	1 249	1 614	1 938
multipurpose	red		0	0	0	0
	white		43 655	46 926	46 384	46 105
minor varieties	red		4 656	6 676	14 551	14 967
	white		2 508	3 502	3 641	3 627
all wine grapes	red		180 544	131 213	176 093	190 753
	white		235 983	188 687	232 525	272 528
total			416 528	319 901	408 619	463 281

table 7 wine grape production – Big Rivers (excl. Murray Darling) zone

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	382	287	331	331
		cabernet sauvignon	25 509	19 128	21 123	23 776
		malbec	167	125	138	138
		merlot	16 462	12 312	15 244	21 999
		petit verdot	3 635	2 723	2 975	2 972
		pinot noir	2 747	2 067	2 016	2 757
		ruby cabernet	12 430	9 289	9 394	11 128
		shiraz	66 102	37 473	62 941	72 229
		total	127 438	83 408	114 167	135 335
	white	chardonnay	66 985	63 962	70 660	80 816
		chenin blanc	1 360	954	1 314	1 331
		colombard	17 254	12 588	13 150	16 759
		muscadelle (tokay)	74	52	55	55
		pinot gris	3 395	2 438	3 500	7 783
		riesling	5 142	3 592	3 488	4 524
		sauvignon blanc	3 944	3 832	2 555	4 353
		semillon	45 969	37 438	35 278	43 944
		traminer	5 218	3 975	3 366	5 451
		verdelho	6 353	4 780	4 870	5 661
		total	155 699	133 616	138 239	170 682
nonpremium	red	grenache	416	305	428	460
		mataro (mourvedre)	1 598	1 197	1 292	1 314
		total	2 014	1 502	1 721	1 775
	white	crouchen	0	0	0	0
		doradillo	19	13	19	27
		palomino	35	25	26	38
		trebbiano	3 874	2 913	3 381	4 108
		total	3 929	2 952	3 427	4 173
multipurpose	red		0	0	0	0
	white		5 056	4 053	3 133	3 133
minor varieties	red		10 004	7 224	7 271	7 297
	white		4 168	5 552	6 645	7 319
all wine grapes	red		139 457	92 135	123 159	144 407
	white		168 853	146 174	151 444	185 308
total			308 310	238 309	274 604	329 715

table 8 **wine grape production – Western Plains zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	297	208	267	203
		malbec	0	0	0	0
		merlot	128	89	115	168
		petit verdot	4	2	3	1
		pinot noir	0	0	0	0
		ruby cabernet	0	0	0	0
		shiraz	521	364	683	983
		total	952	665	1 068	1 356
	white	chardonnay	557	388	499	600
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	0	0	0	0
		riesling	0	0	0	0
		sauvignon blanc	0	0	0	0
		semillon	35	24	31	47
		traminer	0	0	0	0
		verdelho	243	171	219	144
		total	836	584	750	792
nonpremium	red	grenache	127	88	114	66
		mataro (mourvedre)	0	0	0	0
		total	127	88	114	66
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		3	0	0	0
	white		0	0	0	0
all wine grapes	red		1 082	754	1 183	1 422
	white		836	584	750	792
total			1 918	1 338	1 933	2 214

table 9 **wine grape production – Central Ranges zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	432	243	360	426
		cabernet sauvignon	8 922	5 869	7 106	9 422
		malbec	139	62	122	136
		merlot	5 456	3 485	3 912	4 873
		petit verdot	245	142	163	238
		pinot noir	586	305	451	585
		ruby cabernet	303	208	224	283
		shiraz	14 009	8 685	11 283	14 342
		total	30 096	19 002	23 625	30 307
	white	chardonnay	16 568	8 492	14 260	17 376
		chenin blanc	2	1	1	1
		colombard	2	1	2	2
		muscadelle (tokay)	0	0	0	0
		pinot gris	143	73	156	276
		riesling	734	433	445	571
		sauvignon blanc	1 454	862	1 386	1 664
		semillon	3 346	2 112	2 556	3 130
		traminer	641	439	258	401
		verdelho	1 073	599	913	1 069
		total	23 967	13 015	19 981	24 493
nonpremium	red	grenache	64	36	52	63
		mataro (mourvedre)	53	40	47	47
		total	117	76	99	110
	white	crouchen	9	5	4	18
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	9	5	4	18
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		317	274	275	259
	white		151	148	155	102
all wine grapes	red		30 531	19 353	24 000	30 677
	white		24 128	13 169	20 140	24 613
total			54 659	32 523	44 141	55 291

table 10 **wine grape production – Southern New South Wales zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	29	10	14	17
		cabernet sauvignon	3 008	1 952	2 286	2 260
		malbec	0	0	0	2
		merlot	839	696	1 446	1 386
		petit verdot	15	5	6	7
		pinot noir	635	409	492	557
		ruby cabernet	210	140	149	109
		shiraz	3 786	3 120	3 510	3 387
		total	8 525	6 335	7 907	7 729
	white	chardonnay	2 473	1 533	2 029	2 007
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	23	13	19	28
		riesling	285	200	269	305
		sauvignon blanc	207	162	223	246
		semillon	231	123	183	229
		traminer	8	5	8	10
		verdelho	134	94	101	98
		total	3 362	2 132	2 835	2 926
nonpremium	red	grenache	25	5	18	18
		mataro (mourvedre)	1	1	1	1
		total	26	6	19	19
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	6	2	4	4
		total	6	2	4	4
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		248	85	91	103
	white		18	23	26	28
all wine grapes	red		8 800	6 427	8 018	7 852
	white		3 387	2 157	2 866	2 958
total			12 188	8 585	10 884	10 810

table 11 **wine grape production – South Coast zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	2	2	2	2
		cabernet sauvignon	82	94	112	122
		malbec	0	2	2	2
		merlot	46	41	45	50
		petit verdot	0	0	0	0
		pinot noir	53	55	67	74
		ruby cabernet	0	0	0	0
		shiraz	35	41	48	50
		total	220	238	279	303
	white	chardonnay	63	84	105	111
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	19	18	20	22
		riesling	11	15	18	19
		sauvignon blanc	72	67	77	86
		semillon	23	29	33	34
		traminer	3	1	2	2
		verdelho	20	24	27	28
		total	213	241	286	305
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	0	0	0	0
		total	0	0	0	0
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		21	18	19	20
	white		2	0	2	2
all wine grapes	red		241	256	298	323
	white		215	242	288	307
total			457	498	586	630

table 12 **wine grape production – Northern Slopes zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	39	41	47	52
		malbec	1	1	1	1
		merlot	14	18	20	22
		petit verdot	0	0	0	0
		pinot noir	6	7	8	9
		ruby cabernet	53	59	66	73
		shiraz	79	75	84	92
		total	193	203	228	252
	white	chardonnay	20	17	31	60
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	6	0	0	0
		riesling	5	4	4	5
		sauvignon blanc	6	3	4	4
		semillon	51	62	70	77
		traminer	1	0	0	0
		verdelho	11	10	11	12
		total	100	99	124	162
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	1	0	1	1
		total	2	1	1	1
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		1	1	1	1
	white		1	2	2	2
all wine grapes	red		196	205	230	255
	white		101	101	126	164
total			298	306	356	420

table 13 **wine grape production – Northern Rivers zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	8	2	2	2
		cabernet sauvignon	6	17	17	17
		malbec	0	0	0	0
		merlot	3	2	2	2
		petit verdot	4	2	2	2
		pinot noir	0	0	0	0
		ruby cabernet	0	0	0	0
		shiraz	7	3	3	3
		total	30	28	28	28
	white	chardonnay	33	37	37	37
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	0	0	0	0
		riesling	0	0	0	0
		sauvignon blanc	1	1	1	1
		semillon	6	4	4	4
		traminer	3	3	3	3
		verdelho	25	14	14	14
		total	70	62	62	62
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	0	0	0	0
		total	0	0	0	0
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		26	28	28	29
	white		5	7	8	8
all wine grapes	red		56	57	57	58
	white		76	70	71	71
total			133	127	128	129

table 14 **wine grape production – Hunter Valley zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	33	30	32	39
		cabernet sauvignon	806	669	781	890
		malbec	9	7	8	9
		merlot	923	739	743	942
		petit verdot	59	44	50	59
		pinot noir	135	206	236	275
		ruby cabernet	68	37	42	49
		shiraz	4 821	3 537	4 061	4 611
		total	6 858	5 273	5 956	6 877
	white	chardonnay	8 844	7 157	7 241	8 051
		chenin blanc	7	5	6	7
		colombard	99	74	84	99
		muscadelle (tokay)	0	0	0	0
		pinot gris	14	10	12	14
		riesling	99	76	85	102
		sauvignon blanc	371	283	360	424
		semillon	5 542	5 335	5 343	5 728
		traminer	369	286	322	378
		verdelho	2 815	1 987	2 000	2 625
		total	18 163	15 217	15 457	17 432
nonpremium	red	grenache	23	17	20	23
		mataro (mourvedre)	0	0	0	0
		total	23	17	20	23
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	22	17	19	22
		total	22	17	19	22
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		177	187	189	190
	white		0	0	0	0
all wine grapes	red		7 058	5 477	6 165	7 091
	white		18 186	15 234	15 476	17 455
total			25 245	20 712	21 642	24 546

table 15 **wine grape production – Queensland zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	66	40	41	41
		cabernet sauvignon	767	674	814	787
		malbec	6	4	5	5
		merlot	404	291	311	315
		petit verdot	79	62	72	75
		pinot noir	61	37	48	48
		ruby cabernet	22	26	35	35
		shiraz	1 149	893	1 116	961
		total	2 558	2 031	2 447	2 272
	white	chardonnay	832	754	1 074	789
		chenin blanc	9	14	16	16
		colombard	45	14	19	19
		muscadelle (tokay)	0	0	0	0
		pinot gris	56	49	59	59
		riesling	1	8	9	13
		sauvignon blanc	42	59	66	69
		semillon	375	207	250	204
		traminer	1	1	1	1
		verdelho	335	234	291	262
		total	1 699	1 344	1 789	1 436
nonpremium	red	grenache	28	17	19	16
		mataro (mourvedre)	27	47	53	53
		total	56	64	73	70
	white	crouchen	3	3	3	3
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	3	3	3	3
multipurpose	red		0	0	0	0
	white		5	4	5	6
minor varieties	red		180	127	141	141
	white		148	147	175	222
all wine grapes	red		2 795	2 222	2 662	2 484
	white		1 855	1 498	1 973	1 668
total			4 650	3 721	4 635	4 152

table 16 **wine grape production – North East Victoria zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	43	21	43	48
		cabernet sauvignon	4 044	2 024	3 585	4 096
		malbec	49	23	58	50
		merlot	5 173	2 614	4 124	5 241
		petit verdot	91	44	78	94
		pinot noir	1 254	625	1 002	1 259
		ruby cabernet	16	7	17	16
		shiraz	5 332	2 410	4 673	5 400
		total	16 004	7 771	13 583	16 207
	white	chardonnay	3 761	1 928	3 434	4 118
		chenin blanc	111	52	94	112
		colombard	0	0	0	0
		muscadelle (tokay)	302	119	277	307
		pinot gris	851	428	680	972
		riesling	801	397	697	858
		sauvignon blanc	1 175	596	1 289	1 385
		semillon	61	28	53	61
		traminer	69	34	50	78
		verdelho	35	17	24	35
		total	7 169	3 602	6 602	7 929
nonpremium	red	grenache	67	27	67	75
		mataro (mourvedre)	72	31	63	73
		total	140	59	131	148
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	22	9	20	23
		trebbiano	40	16	35	40
		total	62	26	56	63
multipurpose	red		0	0	0	0
	white		48	5	5	7
minor varieties	red		1 813	1 609	1 688	1 770
	white		358	364	389	411
all wine grapes	red		17 959	9 440	15 403	18 126
	white		7 639	3 998	7 053	8 412
total			25 598	13 438	22 456	26 538

table 17 wine grape production – Central Victoria zone

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	23	9	20	24
		cabernet sauvignon	4 556	2 319	3 776	4 615
		malbec	652	388	527	657
		merlot	3 712	1 998	3 065	3 805
		petit verdot	61	34	55	66
		pinot noir	575	330	491	580
		ruby cabernet	0	0	0	0
		shiraz	11 041	5 579	9 235	11 556
		total	20 623	10 660	17 172	21 306
	white	chardonnay	4 592	2 077	3 809	4 635
		chenin blanc	8	2	7	7
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	172	74	133	232
		riesling	1 128	379	989	1 176
		sauvignon blanc	1 301	531	1 200	1 353
		semillon	206	70	191	213
		traminer	111	38	82	115
		verdelho	260	93	242	244
		total	7 781	3 267	6 656	7 981
nonpremium	red	grenache	34	12	32	34
		mataro (mourvedre)	23	8	21	23
		total	58	20	54	58
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	17	4	16	17
		total	17	4	16	17
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		522	631	661	674
	white		534	1 535	1 549	1 812
all wine grapes	red		21 204	11 312	17 887	22 039
	white		8 332	4 807	8 222	9 810
total			29 537	16 119	26 110	31 849

table 18 **wine grape production – Western Victoria zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	6	3	4	6
		cabernet sauvignon	1 039	429	790	1 058
		malbec	1	0	1	1
		merlot	372	169	290	381
		petit verdot	53	19	31	42
		pinot noir	228	102	176	233
		ruby cabernet	0	0	0	0
		shiraz	2 815	1 244	2 115	2 923
		total	4 517	1 970	3 411	4 648
	white	chardonnay	1 566	670	1 191	1 598
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	108	57	78	109
		riesling	168	80	124	178
		sauvignon blanc	152	63	119	152
		semillon	125	44	95	126
		traminer	0	0	0	0
		verdelho	6	2	5	6
		total	2 127	919	1 613	2 171
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	15	6	12	15
		total	15	6	12	15
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	2	0	1	2
		total	2	0	1	2
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		85	102	105	106
	white		38	20	53	54
all wine grapes	red		4 617	2 078	3 528	4 769
	white		2 167	939	1 668	2 227
total			6 785	3 018	5 196	6 997

table 19 **wine grape production – Port Phillip zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	100	49	92	102
		cabernet sauvignon	2 494	1 085	2 370	2 533
		malbec	11	4	10	14
		merlot	1 367	633	1 336	1 407
		petit verdot	27	11	25	26
		pinot noir	5 779	2 741	5 414	5 930
		ruby cabernet	66	30	64	66
		shiraz	2 660	1 212	2 537	2 806
		total	12 507	5 769	11 851	12 888
	white	chardonnay	6 066	2 988	5 874	6 314
		chenin blanc	1	0	1	1
		colombard	1	0	0	1
		muscadelle (tokay)	0	0	0	0
		pinot gris	532	300	481	599
		riesling	214	94	191	218
		sauvignon blanc	1 172	532	1 152	1 288
		semillon	249	111	227	248
		traminer	17	9	16	18
		verdelho	22	9	21	22
		total	8 277	4 047	7 967	8 713
nonpremium	red	grenache	6	2	4	6
		mataro (mourvedre)	14	5	12	14
		total	21	7	17	20
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		176	157	157	159
	white		170	218	237	238
all wine grapes	red		12 704	5 935	12 026	13 068
	white		8 447	4 265	8 204	8 951
total			21 152	10 201	20 231	22 019

table 20 **wine grape production – Gippsland zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	2	1	1	2
		cabernet sauvignon	22	12	21	23
		malbec	2	1	1	2
		merlot	12	7	12	12
		petit verdot	0	0	0	0
		pinot noir	60	38	73	77
		ruby cabernet	0	0	0	0
		shiraz	5	10	16	17
		total	104	71	128	135
	white	chardonnay	43	32	53	64
		chenin blanc	0	0	0	0
		colombard	1	0	1	1
		muscadelle (tokay)	0	0	0	0
		pinot gris	3	1	2	3
		riesling	9	5	9	9
		sauvignon blanc	4	2	4	4
		semillon	3	2	3	3
		traminer	2	1	2	2
		verdelho	0	0	0	0
		total	67	47	78	90
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	0	0	0	0
		total	0	0	0	0
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		2	2	2	2
	white		0	1	2	2
all wine grapes	red		106	73	130	137
	white		68	48	80	92
total			174	122	210	229

table 21 **wine grape production – Mount Lofty Ranges zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	111	52	99	126
		cabernet sauvignon	9 146	3 273	6 267	7 928
		malbec	538	194	390	498
		merlot	5 152	1 731	3 254	4 059
		petit verdot	129	54	103	129
		pinot noir	4 746	2 156	3 899	4 873
		ruby cabernet	13	9	18	23
		shiraz	16 141	5 853	11 385	14 552
		total	35 979	13 326	25 420	32 191
	white	chardonnay	9 753	4 508	8 409	10 624
		chenin blanc	83	41	74	92
		colombard	315	121	216	270
		muscadelle (tokay)	12	7	15	19
		pinot gris	1 112	568	1 022	1 434
		riesling	8 692	3 570	7 184	9 051
		sauvignon blanc	5 448	2 441	4 526	6 073
		semillon	2 455	1 071	2 053	2 573
		traminer	334	116	224	280
		verdelho	139	85	150	189
		total	28 347	12 533	23 878	30 611
nonpremium	red	grenache	590	318	603	753
		mataro (mourvedre)	208	107	204	256
		total	798	425	807	1 010
	white	crouchen	27	14	29	37
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	27	12	22	27
		total	54	27	52	65
multipurpose	red		0	0	0	0
	white		25	21	21	21
minor varieties	red		787	530	550	649
	white		635	744	787	853
all wine grapes	red		37 566	14 282	26 778	33 850
	white		29 062	13 326	24 739	31 551
total			66 628	27 608	51 517	65 402

table 22 **wine grape production – Barossa zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	230	100	175	218
		cabernet sauvignon	12 968	5 431	9 351	11 679
		malbec	215	96	146	203
		merlot	3 635	2 010	3 624	4 586
		petit verdot	152	92	149	193
		pinot noir	1 039	453	784	974
		ruby cabernet	0	0	0	0
		shiraz	38 764	17 564	29 874	37 392
		total	57 006	25 749	44 106	55 247
	white	chardonnay	8 771	4 210	7 598	9 636
		chenin blanc	367	193	277	348
		colombard	21	47	191	239
		muscadelle (tokay)	101	45	60	76
		pinot gris	161	224	285	357
		riesling	7 151	3 613	5 933	7 525
		sauvignon blanc	1 452	745	1 331	1 699
		semillon	8 459	4 775	6 839	8 589
		traminer	244	115	191	240
		verdelho	50	20	33	41
		total	26 782	13 991	22 743	28 755
nonpremium	red	grenache	5 759	3 254	4 291	5 420
		mataro (mourvedre)	956	524	796	1 016
		total	6 715	3 779	5 088	6 437
	white	crouchen	0	0	0	0
		doradillo	13	2	4	5
		palomino	144	66	83	105
		trebbiano	4	1	1	2
		total	162	70	89	112
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		839	665	699	729
	white		1 269	1 359	1 456	1 464
all wine grapes	red		64 561	30 194	49 894	62 415
	white		28 213	15 421	24 289	30 332
total			92 775	45 616	74 184	92 747

table 23 **wine grape production – Fleurieu zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	468	330	367	510
		cabernet sauvignon	38 339	20 605	24 919	35 054
		malbec	336	261	277	399
		merlot	10 732	6 286	6 772	9 466
		petit verdot	1 127	795	921	1 273
		pinot noir	1 821	1 092	1 368	1 948
		ruby cabernet	69	29	43	47
		shiraz	58 067	34 356	40 030	55 083
		total	110 963	63 758	74 699	103 782
	white	chardonnay	17 964	13 689	14 023	19 766
		chenin blanc	272	177	216	289
		colombard	183	136	176	199
		muscadelle (tokay)	0	0	0	0
		pinot gris	221	203	313	403
		riesling	2 924	2 382	2 202	3 056
		sauvignon blanc	2 369	1 602	1 738	2 276
		semillon	2 068	1 463	1 628	2 172
		traminer	117	56	58	74
		verdelho	1 072	719	638	896
		total	27 194	20 431	20 995	29 136
nonpremium	red	grenache	5 535	3 256	3 529	5 057
		mataro (mourvedre)	335	191	258	355
		total	5 870	3 448	3 787	5 413
	white	crouchen	0	0	0	0
		doradillo	6	4	4	5
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	7	4	4	5
multipurpose	red		0	0	0	0
	white		3	5	5	5
minor varieties	red		1 498	1 125	1 146	1 201
	white		897	1 009	1 068	1 136
all wine grapes	red		118 332	68 332	79 633	110 397
	white		28 102	21 450	22 073	30 283
total			146 435	89 783	101 706	140 681

table 24 **wine grape production – Limestone Coast zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	534	159	263	528
		cabernet sauvignon	42 467	12 828	22 903	45 834
		malbec	314	73	110	218
		merlot	12 385	3 857	6 428	12 808
		petit verdot	1 266	382	1 387	2 774
		pinot noir	3 305	1 119	1 496	2 994
		ruby cabernet	438	132	182	366
		shiraz	34 835	10 785	16 617	33 257
		total	95 547	29 338	49 389	98 783
	white	chardonnay	23 626	7 550	10 649	21 584
		chenin blanc	88	26	48	96
		colombard	119	35	59	118
		muscadelle (tokay)	108	32	52	105
		pinot gris	405	169	210	406
		riesling	4 918	1 525	2 066	4 148
		sauvignon blanc	2 577	889	1 386	3 195
		semillon	1 188	382	571	1 127
		traminer	457	130	160	323
		verdelho	415	158	195	387
		total	33 905	10 903	15 402	31 494
nonpremium	red	grenache	26	8	16	32
		mataro (mourvedre)	799	316	398	797
		total	826	324	415	830
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		222	206	194	199
	white		291	507	572	629
all wine grapes	red		96 596	29 869	49 998	99 813
	white		34 196	11 410	15 974	32 123
total			130 792	41 279	65 973	131 936

table 25 **wine grape production – Lower Murray zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	223	145	103	155
		cabernet sauvignon	67 294	43 971	39 049	58 764
		malbec	621	410	333	502
		merlot	29 946	19 627	16 897	25 501
		petit verdot	14 726	9 599	7 472	11 239
		pinot noir	5 735	3 727	3 285	5 210
		ruby cabernet	9 742	6 334	5 560	8 365
		shiraz	105 233	68 716	64 381	97 978
		total	233 523	152 533	137 085	207 719
	white	chardonnay	111 942	80 553	70 170	108 384
		chenin blanc	4 609	3 226	3 123	4 704
		colombard	34 564	24 467	19 356	29 698
		muscadelle (tokay)	299	210	168	253
		pinot gris	11	7	6	104
		riesling	4 001	2 814	2 405	3 703
		sauvignon blanc	5 828	4 162	3 536	5 714
		semillon	11 671	8 257	6 547	10 253
		traminer	2 888	2 018	1 296	1 957
		verdelho	3 037	2 127	1 720	2 637
		total	178 854	127 845	108 333	167 412
nonpremium	red	grenache	9 187	5 979	4 898	7 329
		mataro (mourvedre)	6 521	4 243	3 817	5 706
		total	15 709	10 222	8 715	13 036
	white	crouchen	177	123	99	150
		doradillo	1 751	1 223	1 213	1 820
		palomino	494	347	347	522
		trebbiano	142	99	72	108
		total	2 565	1 794	1 733	2 601
multipurpose	red		17	0	0	0
	white		28 033	27 190	27 395	26 841
minor varieties	red		3 334	1 539	1 565	1 620
	white		4 153	6 504	6 858	7 635
all wine grapes	red		252 584	164 295	147 366	222 376
	white		213 607	163 333	144 320	204 490
total			466 191	327 629	291 686	426 866

table 26 **wine grape production – The Peninsulas zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	57	33	43	54
		malbec	0	0	0	0
		merlot	33	14	19	24
		petit verdot	0	0	0	0
		pinot noir	0	0	0	0
		ruby cabernet	0	0	0	0
		shiraz	65	47	88	109
		total	157	95	151	189
	white	chardonnay	13	5	7	9
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	0	0	0	0
		riesling	7	4	6	8
		sauvignon blanc	0	5	9	17
		semillon	2	0	0	0
		traminer	0	0	0	0
		verdelho	0	0	0	0
		total	23	16	24	35
nonpremium	red	grenache	2	0	0	1
		mataro (mourvedre)	0	0	0	0
		total	2	0	0	1
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		0	0	0	0
	white		0	5	9	13
all wine grapes	red		159	95	151	190
	white		23	21	33	48
total			183	117	185	239

table 27 **wine grape production – Far North zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	123	111	147	186
		malbec	0	0	0	0
		merlot	77	61	80	101
		petit verdot	52	2	3	4
		pinot noir	0	0	0	0
		ruby cabernet	0	0	0	0
		shiraz	649	680	911	1 155
		total	902	855	1 143	1 447
	white	chardonnay	307	321	430	539
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	0	0	0	0
		riesling	1	1	2	2
		sauvignon blanc	0	0	0	0
		semillon	0	0	1	1
		traminer	0	0	0	0
		verdelho	53	53	53	53
		total	363	377	487	597
nonpremium	red	grenache	2	3	3	5
		mataro (mourvedre)	0	0	0	0
		total	2	3	3	5
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		6	10	10	10
	white		0	0	0	0
all wine grapes	red		910	868	1 157	1 463
	white		363	377	487	597
total			1 274	1 246	1 644	2 060

table 28 **wine grape production – Greater Perth zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	34	27	31	32
		cabernet sauvignon	446	482	536	563
		malbec	16	9	10	10
		merlot	111	121	136	142
		petit verdot	15	13	14	17
		pinot noir	33	49	54	57
		ruby cabernet	0	0	0	0
		shiraz	1 109	1 084	1 209	1 284
		total	1 767	1 788	1 992	2 109
	white	chardonnay	1 304	1 222	1 366	1 462
		chenin blanc	2 693	2 350	2 607	2 736
		colombard	9	9	10	11
		muscadelle (tokay)	132	71	78	82
		pinot gris	0	0	0	0
		riesling	19	9	10	11
		sauvignon blanc	68	119	133	192
		semillon	365	299	332	348
		traminer	8	4	5	5
		verdelho	1 179	1 036	1 152	1 211
		total	5 780	5 123	5 699	6 061
nonpremium	red	grenache	56	63	69	73
		mataro (mourvedre)	2	1	1	1
		total	58	64	71	75
	white	crouchen	0	0	0	0
		doradillo	6	3	3	4
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	6	3	3	4
multipurpose	red		0	0	0	0
	white		38	15	15	18
minor varieties	red		11	0	0	0
	white		29	2	2	2
all wine grapes	red		1 837	1 853	2 064	2 185
	white		5 854	5 144	5 720	6 086
total			7 691	6 997	7 785	8 271

table 29 **wine grape production – South West Australia zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	211	323	378	432
		cabernet sauvignon	8 934	10 311	12 181	14 092
		malbec	149	152	191	229
		merlot	3 444	4 010	4 748	5 417
		petit verdot	74	59	75	98
		pinot noir	540	439	565	638
		ruby cabernet	1	1	1	1
		shiraz	7 280	8 112	9 958	11 383
		total	20 635	23 411	28 101	32 294
	white	chardonnay	8 238	9 310	11 175	13 066
		chenin blanc	735	705	795	916
		colombard	0	0	0	0
		muscadelle (tokay)	3	1	2	2
		pinot gris	1	0	1	1
		riesling	1 567	1 227	1 734	1 983
		sauvignon blanc	7 748	6 975	8 459	10 289
		semillon	6 924	6 321	7 418	8 883
		traminer	13	5	7	8
		verdelho	948	1 002	1 182	1 350
		total	26 179	25 551	30 778	36 502
nonpremium	red	grenache	45	50	55	63
		mataro (mourvedre)	15	17	21	24
		total	61	67	77	87
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		3	0	0	0
minor varieties	red		164	72	74	74
	white		120	135	150	162
all wine grapes	red		20 861	23 551	28 254	32 456
	white		26 302	25 686	30 928	36 665
total			47 163	49 237	59 183	69 122

table 30 **wine grape production – Other Western Australia zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	1	0	0	0
		malbec	0	0	0	0
		merlot	2	1	1	1
		petit verdot	0	0	0	0
		pinot noir	4	3	4	4
		ruby cabernet	0	0	0	0
		shiraz	5	4	6	6
		total	12	10	13	13
	white	chardonnay	7	5	6	6
		chenin blanc	1	1	1	1
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	0	0	0	0
		riesling	4	1	2	2
		sauvignon blanc	3	1	2	2
		semillon	40	20	25	25
		traminer	0	0	0	0
		verdelho	62	48	60	60
		total	119	78	97	98
nonpremium	red	grenache	1	1	1	2
		mataro (mourvedre)	0	0	0	0
		total	1	1	1	2
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		1	0	0	0
	white		0	0	0	0
all wine grapes	red		15	11	15	15
	white		119	78	97	98
total			134	89	112	113

table 31 **wine grape production – Tasmania zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	0	0	0	0
		cabernet sauvignon	209	180	241	249
		malbec	0	0	0	0
		merlot	113	80	154	158
		petit verdot	0	0	0	0
		pinot noir	2 145	1 918	2 709	2 919
		ruby cabernet	0	0	0	0
		shiraz	0	0	0	0
		total	2 468	2 179	3 105	3 327
	white	chardonnay	1 622	1 442	1 967	2 115
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	194	155	214	288
		riesling	597	651	643	672
		sauvignon blanc	478	494	505	613
		semillon	0	0	2	2
		traminer	29	34	44	60
		verdelho	0	0	0	0
		total	2 921	2 778	3 378	3 753
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	0	0	0	0
		total	0	0	0	0
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		402	606	609	611
	white		14	75	73	77
all wine grapes	red		2 870	2 785	3 715	3 939
	white		2 936	2 853	3 451	3 830
total			5 806	5 639	7 166	7 769

table 32 **wine grape production – Australian Capital Territory zone**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	1	1	2	2
		cabernet sauvignon	57	39	49	49
		malbec	0	0	0	0
		merlot	56	38	47	47
		petit verdot	0	0	0	0
		pinot noir	7	10	13	13
		ruby cabernet	0	0	0	0
		shiraz	184	103	130	133
		total	306	192	242	245
	white	chardonnay	111	56	70	70
		chenin blanc	0	0	0	0
		colombard	0	0	0	0
		muscadelle (tokay)	0	0	0	0
		pinot gris	8	9	11	11
		riesling	86	56	70	70
		sauvignon blanc	34	25	31	31
		semillon	63	26	32	32
		traminer	0	0	0	0
		verdelho	0	0	0	0
		total	303	173	216	216
nonpremium	red	grenache	0	0	0	0
		mataro (mourvedre)	0	0	0	0
		total	0	0	0	0
	white	crouchen	0	0	0	0
		doradillo	0	0	0	0
		palomino	0	0	0	0
		trebbiano	0	0	0	0
		total	0	0	0	0
multipurpose	red		0	0	0	0
	white		0	0	0	0
minor varieties	red		0	0	0	0
	white		51	120	150	150
all wine grapes	red		306	192	242	245
	white		354	293	366	366
total			661	486	608	611

table 33 **wine grape production – Australia**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	3 293	2 087	2 684	3 290
		cabernet sauvignon	298 278	178 944	219 884	288 489
		malbec	3 303	1 868	2 400	3 173
		merlot	132 035	83 113	101 431	133 438
		petit verdot	25 290	16 527	16 716	22 006
		pinot noir	34 054	19 680	26 953	34 786
		ruby cabernet	27 710	19 303	19 652	25 141
		shiraz	440 302	258 681	337 840	441 107
		total	964 269	580 206	727 563	951 434
	white	chardonnay	432 104	313 247	368 630	474 272
		chenin blanc	11 393	8 482	9 523	11 804
		colombard	79 383	56 381	57 708	75 790
		muscadelle (tokay)	1 037	543	714	906
		pinot gris	9 463	6 229	9 342	17 331
		riesling	41 004	22 863	30 826	41 349
		sauvignon blanc	41 701	28 540	35 626	50 637
		semillon	101 777	76 996	81 473	100 452
		traminer	10 882	7 520	6 409	9 918
		verdelho	19 603	14 209	15 111	18 252
		total	748 351	535 014	615 365	800 715
nonpremium	red	grenache	23 129	14 240	15 241	20 564
		mataro (mourvedre)	11 041	6 953	7 280	10 000
		total	34 171	21 193	22 521	30 565
	white	crouchen	1 955	1 367	1 715	2 080
		doradillo	1 838	1 276	1 283	1 929
		palomino	698	448	477	689
		trebbiano	4 136	3 069	3 556	4 333
		total	8 629	6 162	7 032	9 033
multipurpose	red		17	0	0	0
	white		76 868	78 219	76 963	76 136
minor varieties	red		25 502	21 879	30 031	30 815
	white		15 569	21 984	24 013	25 951
all wine grapes	red		1 023 960	623 279	780 116	1 012 815
	white		849 419	641 380	723 376	911 836
total			1 873 380	1 264 660	1 503 492	1 924 652

table 34 **wine grape production – warm climate regions of Australia**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	953	676	748	724
		cabernet sauvignon	159 736	110 454	121 532	146 915
		malbec	856	583	533	728
		merlot	77 964	54 199	60 851	78 181
		petit verdot	21 833	14 756	13 571	16 900
		pinot noir	11 033	7 576	7 593	10 728
		ruby cabernet	26 445	18 619	18 805	24 067
		shiraz	237 457	153 274	188 941	240 597
		total	536 281	360 141	412 577	518 843
	white	chardonnay	315 515	245 147	273 779	350 222
		chenin blanc	7 011	4 909	5 374	7 175
		colombard	78 583	55 939	56 945	74 827
		muscadelle (tokay)	376	264	226	311
		pinot gris	5 429	3 867	5 636	12 107
		riesling	11 575	8 121	8 122	11 358
		sauvignon blanc	15 561	12 071	11 613	19 559
		semillon	69 984	54 503	53 552	66 629
		traminer	8 448	6 234	4 968	7 910
		verdelho	10 942	7 996	7 988	9 640
		total	523 429	399 056	428 207	559 743
nonpremium	red	grenache	10 860	7 165	6 454	8 914
		mataro (mourvedre)	8 511	5 653	5 383	7 318
		total	19 371	12 818	11 838	16 233
	white	crouchen	1 916	1 344	1 677	2 022
		doradillo	1 812	1 266	1 270	1 914
		palomino	530	372	373	560
		trebbiano	4 016	3 013	3 454	4 216
		total	8 276	5 996	6 775	8 713
multipurpose	red		17	0	0	0
	white		76 745	78 169	76 912	76 079
minor varieties	red		17 997	15 439	23 387	23 884
	white		10 830	15 558	17 144	18 581
all wine grapes	red		573 668	388 398	447 802	558 960
	white		619 281	498 780	529 040	663 118
total			1 192 949	887 178	976 842	1 222 078

table 35 **wine grape production – cool climate regions of Australia**

			estimated		projected	
			2005-06	2006-07	2007-08	2008-09
			t	t	t	t
premium	red	cabernet franc	2 340	1 411	1 936	2 566
		cabernet sauvignon	138 542	68 490	98 352	141 574
		malbec	2 447	1 285	1 867	2 445
		merlot	54 070	28 913	40 579	55 256
		petit verdot	3 456	1 770	3 145	5 106
		pinot noir	23 021	12 103	19 359	24 057
		ruby cabernet	1 264	684	846	1 074
		shiraz	202 845	105 407	148 898	200 510
		total	427 987	220 065	314 986	432 591
	white	chardonnay	116 589	68 099	94 850	124 049
		chenin blanc	4 381	3 572	4 149	4 628
		colombard	799	442	762	962
		muscadelle (tokay)	661	278	487	594
		pinot gris	4 034	2 362	3 705	5 223
		riesling	29 429	14 741	22 703	29 991
		sauvignon blanc	26 140	16 468	24 013	31 077
		semillon	31 792	22 492	27 921	33 823
		traminer	2 433	1 286	1 441	2 008
		verdelho	8 660	6 213	7 122	8 612
		total	224 922	135 958	187 157	240 971
nonpremium	red	grenache	12 269	7 075	8 786	11 649
		mataro (mourvedre)	2 529	1 299	1 896	2 682
		total	14 799	8 375	10 683	14 331
	white	crouchen	39	23	37	58
		doradillo	26	10	12	15
		palomino	167	76	104	128
		trebbiano	119	56	102	116
		total	353	165	257	319
multipurpose	red		0	0	0	0
	white		123	50	51	57
minor varieties	red		7 505	6 440	6 644	6 931
	white		4 738	6 426	6 869	7 370
all wine grapes	red		450 292	234 880	332 314	453 854
	white		230 138	142 600	194 335	248 718
total			680 430	377 481	526 649	702 573

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