Pricing, Cost Structures, and Profitability in the Australian Vegetable Industry

This paper examines some key financial aspects of the Australian vegetable industry as it relates to pricing and costs of production of particular vegetables and overall profitability of vegetable farms. The paper aims to support the Collaborative Industry Organisations sub- program of the Vegetable Industry Development Program by focusing on state performance. The paper is divided into three sections. Section 1 covers variations between the Australian states for these financial variables. Section 2 examines scale as an influence on these financial variables. These two sections use data provided to the industry by the Australian Bureau of Agriculture and Resource Economics and Science (ABARES) in December last year which was collected in face to face interviews with vegetable growers over May-June 2010. The data collected relates to financial year 2008-09. This data is collected annually in the autumn as records for the previous financial year must be completed by April. In addition to examining recent performance in some detail the paper in section 3 identifies a number of changes in state grower performance that have occurred over time using data collected in previous years.

Section 1 - State variations

Prices received for vegetables

Analysis of the data reveals significant differences in the prices received for various vegetables between states, although the scale of the difference itself varies significantly depending on the type of vegetable.

Detailed data on prices received was collected for eleven different vegetables. In 2008-09, Queensland growers received the highest prices in Australia at almost 1.7 times the national average for the vegetables surveyed. By individual vegetable, Queensland growers received the highest average prices for potatoes, beans, onions, and broccoli. The second highest prices on average were in Western Australia. Growers in that state received the highest prices for pumpkins, cauliflowers, broccoli, and cabbage. The lowest prices received by growers were in Tasmania, with prices received for all vegetables equivalent to only 55% of the national average. Tasmanian growers received the lowest prices for potatoes, pumpkins, green peas, onions, and carrots. Tasmanian vegetables are primarily destined for processing with some exports and with less emphasis on supplying the domestic fresh market.

The biggest difference in prices received for a particular vegetable between states was for tomatoes. Prices received in South Australia of $2,024 per tonne were more than four times the national average of $460/tonne, while prices received by Victorian growers of $224/tonne were less than half the national average and only 11% of the prices received in South Australia. Tomato production in South Australia is heavily focused on undercover production whereas in Victoria the focus is on tomatoes for processing. This data suggests that there is a premium for tomatoes produced undercover and a discount for tomatoes produced for processing.

There were also differences of a similar magnitude for green peas and onions. Green pea prices of $5,430 per tonne in Victoria were 2.5 times the national average of $2,175/tonne, while prices of $663/tonne for green peas in Tasmania were only 30% of the national average and 12% of prices in Victoria. These price differentials once again reflect the relative lower prices received for vegetables sold for processing as opposed to those in the fresh market. Onion prices of $901 per tonne in Queensland were almost double the national average of $454/tonne, while prices of

$116/tonne for onions in Tasmania were only 26% of the national average and 13% of the average prices received in Queensland.

Prices received by State 2008/09

Average per farm $ per tonne

	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
Potatoes	403	251	616	408	550	331	382	394
Pumpkins	282		415		604		382	379
Green peas	2817	5430	4718			663		2175
Beans		1709	1918			564		1641
Tomatoes	918	224	1809	2024	1188			406
Onions	409		901	372	877	116		454
Carrots		559		208	491	131		377
Cauliflowers	523	967	753		1374	720		777
Lettuce	546	716	883	1292	1338			899
Broccoli	844	1173	1580		1528	896		1301
Cabbage	736	213	437	379	777			404
All Vegetables	532	443	953	470	821	312	815	564

Source: data provided by ABARES collected on farm and reproduced in Australian Vegetable growing farms: an economic survey 2008-09

Smaller, but still significant, differences were evident between states in the prices received for carrots, cabbage, and beans. Prices received for carrots in Victoria of $559 per tonne were 1.5 times the national average of $377/tonne, while prices received by Tasmanian growers of $131/tonne were only 35% of the national average and 23% of the prices received in Victoria. Prices received for beans in Queensland of $1,918 per tonne were only 17% higher than the national average price of $1,641/tonne, but almost 3.5 times above the $564/tonne received by Tasmanian growers.

Of the eleven vegetables surveyed, the smallest differences in the prices received between states were for broccoli, and potatoes.

In conclusion, on prices, the data collected in the vegetable industry farm survey for 2008-09 suggests that there was a premium on prices for vegetables out of Queensland. This could reflect the ability of that state to supply counter seasonal vegetables to southern markets as well as New Zealand. Prices for vegetables out of Tasmania are generally lower indicating poorer rates of return for processing vegetables and a more limited fresh market in that State due to a smaller population base. There is a premium on vegetables produced undercover reflecting the niche markets developed especially for tomatoes and cucumbers.

Costs of production of particular vegetables

Data on costs of production was collected for ten vegetables but not in all states. Western Australia incurred the highest costs in producing potatoes, pumpkins, cauliflowers, and lettuce, Queensland in producing onions, broccoli, and cabbage, Victoria for carrots and beans and South Australia for tomatoes.

New South Wales had the lowest costs in producing pumpkins, cauliflowers, lettuce and broccoli, Tasmania for potatoes, onions, beans and carrots, and Victoria for cabbage and tomatoes.

The variation in the cost of producing different vegetables between states is often significant. The biggest difference between individual states relates to tomatoes where the average cost of $1680 tonne in South Australia is eight times the $207 cost in Victoria. As for price, the substantial difference in costs between these states reflects the different production techniques employed with South Australian tomato production being heavily focused on undercover production and Victorian tomato production focused on field production for processing. Particularly large differences in the costs of production between states are also evident in producing carrots, onions, cabbages and cauliflowers with costs in the lowest-cost state only 17-25% of costs in the highest-cost state.

Cost of vegetables production by State 2008/09

$ per tonne (average per farm) (Including imputed labour)

	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
Potatoes	284	264	352	250	398	212		263
Pumpkins	378		783		826		502	598
Onions	291		697	196	646	154		331
Carrots		366		121	211	68		209
Cauliflowers	336	665	526		1359	611		611
Lettuce	301	513	732	798	859			627
Tomatoes	869	207	1198	1680				413
Beans		1377	928			545		924
Broccoli	687	890	1431		1418	1090		1180
Cabbage	415	101	494	211	595			288

Source: data provided by ABARES collected on farm and reproduced in Australian Vegetable growing farms: an economic survey 2008-09

The smallest difference in production costs between states relates to potatoes. However costs of $398 per tonne in Western Australia were almost double the $212/tonne cost in Tasmania. The large proportion of potatoes grown in South Australia and Tasmania has a favourable impact in reducing the national average cost of production so costs in Tasmania are just 20% below the national average of $263/tonne while costs in Western Australia are 50% higher. The cost of producing broccoli in Queensland of $1,431 per tonne is more than double the $687/tonne cost in New South Wales, with a similar proportional difference for pumpkins ranging from a low of $378/tonne in New South Wales to a high of $826/tonne in Western Australia.

Farm cash costs

Hired labour was the biggest item in farm cash costs, accounting for 18% of total cash costs in Australia in 2008-09. The highest labour costs as a proportion of total cash costs are in Queensland where they accounted for almost 25% of the total in 2008-09. In most other states hired labour costs fell within a range of 15-21% of the total, but New South Wales and Tasmania at 11% and 9% respectively were well below this range suggesting heavier reliance on own and family labour. In general vegetable farms tend to be smaller in these states. When contracted labour is added, labour costs total close to 30%. Contracts paid accounted for 10.2% of total costs in Australia, with a wide range from a low of 3% in Western Australia to approximately 13% in

Queensland and Tasmania. Hired and contracted labour costs were also highest in Queensland where they accounted for 38% of total costs.

Fertiliser was the second most important expense item, comprising 11% of total cash costs in Australia in 2008-09. There were significant variations between the states, with the share of fertiliser in the total ranging from 8% in Queensland to 18% in South Australia.

These three leading items, plus the cost of seed, fuel, chemicals, repairs, interest, and packing materials and charges, accounted for 80% of total cash costs in Australia in 2008/09 (all other items account for 2.6% or less of the total), ranging from 76% in New South Wales and Tasmania to 85% in South Australia.

Farm cash costs by State 2008/09

$ average per farm % of total

	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
Hired labour	11.1	15.5	24.8	20.9	19.4	8.7	16.5	18.3
Fertiliser	12.1	9.2	8.0	18.0	10.8	16.5	13.7	11.3
Contracts paid	10.8	10.8	13.2	6.9	3.0	13.1	5.6	10.2
Seed	6.3	10.3	6.0	8.4	10.9	8.7	9.0	8.3
Fuel, oil, grease	9.1	7.2	4.6	8.0	6.1	5.6	5.4	6.4
Crop & pasture chemicals	5.5	4.9	4.5	5.8	5.8	9.4	6.2	5.5
Repairs – motor vehicles & paint	8.8	4.1	5.6	5.2	7.9	4.8	7.8	5.7
Interest	6.2	7.9	5.8	6.8	5.0	5.8	6.3	6.4
Repairs-buildings & structures	1.6	3.2	3.7	2.8	2.1	3.1	2.5	3.0
Packing materials	3.6	0.2	3.9	2.3	5.8	0.2	10.1	2.7
Packing Charges	1.1	4.0	4.3	0.3	2.8	0.1	0.0	2.7
Total above	76.1	77.2	84.4	85.3	79.6	75.9	83.1	80.5
Total cash costs	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: data provided by ABARES collected on farm and reproduced in Australian Vegetable growing farms: an economic survey 2008-09

Financial performance

Farm cash income of Australian vegetable farms averaged $204,235 in 2008-09. Average income in three states and the Northern Territory was below the national average. The lowest average cash income was in New South Wales, which at $108,000 in 2008-09 was 47% below the national average. Average cash income was $134,000 in the Northern Territory, with farms in Tasmania and Queensland generating average cash income of $150,000 and $152,000 respectively.

Farms in Victoria achieved the highest cash income in 2008-09 with an average of $347,000, which was 70% above the national average and almost 10% ahead of Western Australia vegetable farms which had the second highest average cash income of $317,000. South Australian growers also earnt cash income above the national average with an average income of $245,000.

An average of 10% of farms in Australia experienced negative farm cash income in 2008-09 with significant geographic variations ranging from no farms reporting negative cash income in the Northern Territory and just 2% in New South Wales to highs of 11% and 19% in Victoria and Queensland respectively. Vegetable farms experiencing negative cash flow are clearly non – viable. They may remain in business because 2008-09 was an exceptionally bad year and not the norm or they may continue to sustain losses for reasons other than an economic return from vegetable growing.

Financial performance by State 2008/09

$ average per farm except where stated

	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
Total cash receipts	316628	1051105	675971	745257	882950	625504	448325	682683
Total cash costs	208644	703716	523504	500329	566114	475193	313925	478449
Farm cash income	107984	347389	152466	244928	316836	150311	134400	204235
% farms negative farm cash income	2	11	19	7	8	8	0	10
Build up in trading stocks	1859	-707	4054	6992	-13999	-2992	0	452
Depreciation	23984	55843	33897	42075	49222	37114	24148	38282
Imputed labour	60258	57277	54587	52697	59065	45694	65494	55756
Farm business profit	25601	233563	68036	157149	194549	64511	44835	110649
% farms negative farm business profit	73	47	59	47	34	52	43	55
Rate of return % excluding capital appreciation	2.6	7.3	5.6	6.4	4.5	4.1	2.9	5.3
Change in farm debt during year %	12	9	15	19	22	12	2	13
Total farm debt	210584	746489	405649	278179	414043	460048	245736	430764
Total farm capital	1767833	4353653	2094331	2518782	3840782	2673947	2316009	2876675
Farm equity ratio	88	83	80	89	89	83	89	85

Source: data provided by ABARES collected on farm and reproduced in Australian Vegetable growing farms: an economic survey 2008-09

The average business profit of Australian vegetable farms, which takes account of depreciation, changes in trading stocks and the cost of imputed labour (grower and family labour), averaged $110,649 in 2008-09. The performance of individual states follows the same pattern as farm cash income. Average farm profit was lowest at $25,600 in New South Wales, with the Northern Territory, Tasmania and Queensland all significantly below the national average. Farm business

profit was highest in Victoria with the average of $234,000 in 2008-09 more than double the national result, followed by Western Australia and South Australia at $195,000 and $157,000 respectively.

The proportion of Australian vegetable farms with negative business profit was 55% in 2008-09, ranging from 34% in Western Australia to 73% in New South Wales. These figures indicate that a high proportion of vegetable growers earn small incomes and incur a significant opportunity cost by remaining in the industry. The figures for New South Wales are particularly noteworthy. While most growers in that State earn positive cash incomes they receive a poor return for the labour and capital they have tied up on farm. This may be because a large proportion of growers in New South Wales are located in the Sydney basin on smaller farms in peri-urban areas where other factors than a return from vegetable growing are taken into account.

The rate of return excluding capital appreciation averaged 5.3% on Australian vegetable farms in 2008-09 with large geographic differences with the average rate of return ranging from a low of 2.6% in New South Wales to a high of 7.3% in Victoria. If capital appreciation is included in the calculation, the national average was slightly higher at 5.7% with farms in Victoria producing an average rate of return of 10.4% in 2008-09. The rate of return in New South Wales is even lower at 2.1%, but the most surprising result is in Western Australia where the rate of return including capital appreciation was a mere 0.5% in 2008-09, significantly lower than the return of 4.5% if capital appreciation is excluded.

Farm debt rose sharply in South Australia and Western Australia in the year to 30 June 2009, with increases of 19% and 22% well above the national increase of 13%. The smallest annual debt increases in 2008-09 were in the Northern Territory and Victoria with rises of 2% and 9% respectively. Notwithstanding the below average increase in 2008-09, average farm debt in Victoria of $747,000 was significantly higher than in all the other states and 73% above the national average. Debt was lowest at $211,000 in New South Wales, less than half the Australian average. The debt servicing ratio averaged 5% in 2008-09 with a low of 3% in Western Australia and highs of 5% in New South Wales, Victoria, and Queensland.

Total farm capital averaged $2,877,000 at 30 June 2009, ranging from $1,768,000 in New South Wales to $4,534,000 in Victoria. The farm equity ratio averaged 85% with a range from 80% in Queensland to 89% in South Australia, Western Australia, and the Northern Territory.

Section 2 – Scale influences

The latest survey also collected data on prices, costs and financial performance based on vegetable farm size. Data was more limited than for the state comparisons. Vegetable farms were split into four categories:
1. less than 5 hectares
2. 5 -20 hectares
3. 20 – 70 hectare
4. greater than 70 hectares

For all 11 vegetables on which statistics were gathered, the lowest average prices received were $507 per tonne on farms with a sown area to vegetables of 20-70 hectares. The average price received on the smallest farms was higher at $684 per tonne. Prices averaged $526 per tonne on

farms above 70 hectares but the best prices were received on farms with hectares sown to vegetables of 5 to 20 with prices received of $909/tone.

In terms of individual vegetables, the highest prices received for potatoes, pumpkins, tomatoes, and lettuce were on areas sown of less than 5 hectares. This may reflect the production of niche products on these farms and also the fact that undercover vegetable farms are more highly concentrated in this sector. The highest prices received for beans, broccoli and cabbage were achieved on areas of 5-20 hectares. In contrast, the highest prices for onions, carrots, and cauliflowers were received on large areas exceeding 70 hectares.

Using farm size as the variable the biggest differences in prices received related to beans, tomatoes, and cabbage. Prices received for beans on farms of 20-70 hectares of $434 per tonne were only 12% of those of 3,485/tonne on farms of 5-20 hectares, prices for tomatoes in the largest category exceeding 70 hectares of $346/tonne were 22% of $1,608/tonne on the smallest-sized category of less than 5 hectares, while prices for cabbage grown on areas exceeding 70 hectares were less than a third of the $877/tonne received on 5-20 hectare holdings.

The smallest differences in prices received were evident for onions, broccoli, green peas and cauliflowers, where the lowest prices received by size of area sown were in a range of 62-72% of the prices received in the highest category.

Analysis of the costs of production by area of vegetables sown is limited because statistics on areas of less than 20 hectares are patchy so detailed comparisons cannot be made for most vegetables across the full range of different-sized areas. The most reliable comparisons are between areas of 20-70 hectares, and those of more than 70 hectares. Production costs were lower on pumpkins, onions, carrots, beans, lettuce and cauliflowers on farms of 20-70 hectares, while costs for potatoes, broccoli, tomatoes and cabbage were lowest on areas of more than 70 hectares. The most pronounced variation in costs of production between different-sized areas was for lettuce.

Nothing conclusive can be drawn from this data as to the impact of farm size on prices received and costs associated with the production of particular vegetables. There was no co-relation between farm size and prices received nor farm size and production costs of particular vegetables. Other variables such as the variety of vegetable grown and the production technique used would seem more relevant.

However the data collected for 2008-09 reveals that farm size has an impact on the overall financial performance of vegetable farms. This is not to say that large vegetable farms will be profitable and small ones not. Rather that there is likely to be a higher proportion of profitable vegetable farms at the top end of the size category and a smaller percentage of non profitable farms. Farm cash income in 2008-09 ranged from $47,000 on farms of lees the 5 hectares to $993,000 on the largest of more than 70 hectares. The smallest farms experienced average losses of approximately $20,000 in 2008-09 while the biggest generated profits of $777,000. Only 2% of the largest farms had negative cash income compared to 10% of the smallest although farms in the 20-70 hectare category were the weakest on this indicator with 17% reporting negative cash income in 2008-09. The proportion of farms of more than 70 hectares with negative business profit was 16%, compared with 78% of the smallest farms.

Farms of less than 5 hectares reported negative rates of return averaging 1.1% in 2008-09 if capital appreciation is excluded and 0.3% if capital appreciation is included. The respective rates

of return for the largest farms were 10.3% and 11.7% respectively. The smallest farms had average debt of $84,000 in mid-2009 and a debt servicing ratio of 3% while the largest farms held average debt exceeding $2.3 million with interest costs equivalent to 5% of cash receipts. Total farm capital of the smallest farms averaged $1.1 million and that of the largest farms $9.7 million.

Section 3 – Developments over recent years

This paper has concentrated on the differences between states and different-sized farms using data on the industry for 2008-09. Data on prices, costs and financial performance on the vegetable industry has been collected in vegetable farm surveys since 2005-06. This concluding section of the report examines the changes that emerge from the data over the past four years.

The price of all vegetables rose by 23% in cumulative terms between 2005-06 and 2008-09. Seven of the eight vegetables on which price data is available for the whole of this period recorded cumulative increases, which ranged from 4% for pumpkins to 111% for beans and 150% for green peas. Carrots were the only crop to record a price decline, with a cumulative fall of 8% over this period. The price data reveals significant variations in year-to-year price fluctuations as would be expected in an industry where supply is variable and impacted by climatic conditions. Annual price fluctuations over the 3-year period between 2005-06 and 2008-09 averaged 15%, but ranged from relatively modest annual fluctuations of 9-11% for potatoes and pumpkins to large year-to-year fluctuations of more than 30% per annum for carrots, beans, tomatoes and green peas.

Prices received
($ per tonne)

	2005-06	2006-07	2007-08	2008-09
Potatoes	360	371	360	394
Pumpkins	363	398	435	379
Green Peas	871	2924	1997	2175
Beans	779	947	892	1641
Tomatoes	319	586	1142	460
Onions	405	371	572	454
Carrots	410	289	443	377
Cauliflowers	559	752	803	777
Lettuce		1163	970	899
Broccoli		1473	1197	1301
Cabbage		532	283	404
Other Vegetables	772	1031	1225	815
All Vegetables	458	527	631	564

Source: data provided by ABARES collected on farm for the vegetable farm survey for the four financial years 2005-06 to 2008-09

Total cash receipts of Australian vegetable farms rose by 54.5% between 2005-06 and 2008-09. The biggest increase was in Tasmania with a rise of 159% where changes in contract prices for processing vegetables can have a large impact. Cumulative increases of 87% in Victoria and 84% in Western Australia were also well above the national average. In contrast, cash receipts in the Northern Territory fell by 7% and growth in cash receipts in New South Wales were weak.

Total cash receipts

Average per farm ($)

	2005-06	2006-07	2007-08	2008-09	Cumulative 2005-06 to 2008-09 %
NSW	265592	296552	313432	316628	19.2
Victoria	563538	645831	674807	1051105	86.5
Queensland	538423	926587	776754	675971	25.5
South Australia	536891	504206	521639	745257	38.8
Western Australia	479077	554052	660807	882950	84.3
Tasmania	241866	339914	534568	625504	158.6
Northern Territory	482007	354051	441772	448325	-7.0
Australia	**441933**	**583817**	**587762**	**682683**	**54.5**

Source: data provided by ABARES collected on farm for the vegetable farm survey for the four financial years 2005-06 to 2008-09

Total cash costs over the four year period in percentage terms grew in tandem with cash receipts across Australia although in absolute dollar terms receipts grew faster than costs. However there was a marked divergence between the states. Western Australia and Tasmania recorded the biggest increases in cash costs with cumulative rises of 136% and 113% respectively. Cash costs rose by 25% in New South Wales and South Australia between 2005-06 and 2008-09, and fell by 23% in the Northern Territory.

Total cash costs

Average per farm ($)

	2005-06	2006-07	2007-08	2008-09	Cumulative 2005-06 to 2008-09 %
NSW	166950	183897	190530	208644	25.0
Victoria	388676	477872	487614	703716	81.1
Queensland	401299	642848	569475	523504	30.5
South Australia	401039	327628	364273	500329	24.8
Western Australia	240406	350709	437455	566114	135.5
Tasmania	223496	319870	421721	475193	112.6
Northern Territory	408808	174433	256360	313925	-23.2
Australia	**310677**	**407515**	**416515**	**478449**	**54.0**

Source: data provided by ABARES collected on farm for the vegetable farm survey for the four financial years 2005-06 to 2008-09

Total cash costs of vegetable growers rose by 54% between 2005-06 and 2008-09. The biggest cost increase over this period related to contracts paid, which rose by 142% raising the share of total costs from 6.5% in 2005-06 to 10.2% in 2008-09. Other large increases were interest (an increase of 115% in cumulative terms), fertiliser (95%), land rent (74%), and repairs of buildings and structures (73%). The cost of freight fell by a surprising 74% in cumulative terms between 2005-06 and 2008-09 but this may reflect lower sales interstate and a higher proportion of vegetables going to the local capital city market a fact borne out by other data. The cost of fuel, oil, & grease, and chemicals rose by 27-28%, approximately half of the average increase in total costs over the three year period.

Cash costs

$ average per farm

	2005-06	2006-07	2007-08	2008-09	Cumulative 2005-09 %
Hired labour	54812	77693	78615	87694	60.0
Fertiliser	27632	36061	44229	53867	94.9
Contracts paid	20154	39506	41245	48696	141.6
Seed	2558	30473	29499	39796	55.7
Fuel, oil, grease	24198	28259	27615	30695	26.8
Crop & pasture chemicals	20702	20718	21861	26469	27.9
Repairs – motor vehicles & paint	16883	20382	22582	27229	61.3
Interest	14219	19468	28596	30564	115.0
Repairs-buildings & structures	8244	14656	13679	14254	72.9
Packing materials	15872	29674	18226	12748	-19.7
Packing Charges	9879	11456	10056	13154	33.2
Electricity	7352	9282	9869	10990	49.5
Administration	8025	9233	10503	12439	55.0
Land rent	6314	8952	8588	10968	73.7
Rates	4830	7065	7619	7602	57.4
Freight	16199	12699	4640	4252	-73.8
Total above	280873	375577	376422	431417	53.6
Other cash costs	29804	31938	40093	47032	57.8
Total cash costs	**316077**	**407515**	**416515**	**478449**	**54.0**

Source: data provided by ABARES collected on farm for the vegetable farm survey for the four financial years 2005-06 to 2008-09

Farm cash income rose by 55.6% in cumulative terms between 2005-06 and 2008-09. Reflecting the substantial increases in prices received in 2008 average farm cash income of $150,000 in Tasmania in 2008-09 was seven times higher than in 2005-06. Despite this substantial increase, Tasmania growers still earned cash income below the national average.

Farm Cash Income

Average per farm ($)

	2005-06	2006-07	2007-08	2008-09	Cumulative 2005-06 to 2008-09 %
NSW	98642	112655	122903	107983	9.5
Victoria	174862	167959	187194	347389	98.7
Queensland	137124	283739	207279	152466	11.2
South Australia	135852	176579	157366	244928	80.3
Western Australia	238671	203343	223353	316836	32.8
Tasmania	18370	20044	112846	150311	718.2
Northern Territory	73999	179618	185411	134400	81.6
Australia	**131256**	**176302**	**171426**	**204235**	**55.6**

Source: data provided by ABARES collected on farm for the vegetable farm survey for the four financial years 2005-06 to 2008-09

The second biggest cumulative rise in income was in Victoria with the average almost doubling between 2005-06 and 2008-09. At the other end of the spectrum, the income of farms in New South Wales and Queensland rose by only 9.5% and 11.2% respectively. Western Australian growers were the most profitable over the period consistently exceeding the national average. Victorian growers also did well. South Australian growers performed around the national average and profitability was variable in Queensland and the Northern Territory. In contrast growers in New South Wales and Tasmania consistently received lower cash incomes than growers in other states.

Farms with negative cash income declined from 18% in 2005-06 to 10% in 2008-09. There were significant geographic variations with the proportion of farms in the Northern Territory with negative income declining sharply from 60% in 2005-06 to zero in 2008-09, and from 43% to 8% in Tasmania over the same period. In contrast the proportion rose from 16% to 19% in Queensland and from 5% to 8% in Western Australia.

Farm business profit rose by 134% in Australia between 2005-06 and 2008-09. Again there were significant variations between states. Average profit per farm over this period almost tripled in South Australia and Victoria although almost all this improvement occurred in 2008-09. Growers in Tasmania transformed average losses of $59,000 in 2005-06 into an average profit of almost $65,000 in 2008-09. As for all financial performance indicators growers in New South Wales underperformed.

Farm business profit

Average per farm ($)

	2005-06	2006-07	2007-08	2008-09	Cumulative 2005-06 to 2008-09 %
NSW	26336	34542	30055	25600	-2.8
Victoria	80270	52806	82075	233563	191.0
Queensland	46256	187714	113078	68036	47.1
South Australia	53889	97070	69395	157149	191.6
Western Australia	157032	105155	126488	194549	23.9
Tasmania	-58819	-56371	32952	64511	
Northern Territory	-16620	115405	94654	44835	
Australia	**47197**	**84353**	**77211**	**110649**	**134.4**

Source: data provided by ABARES collected on farm and reproduced in Australian Vegetable growing farms: an economic survey 2008-09

There was little change in the proportion of Australian vegetable farms reporting negative business profit; after a rise from 54% in 2005-06 to 59% in the following year, the proportion fell back modestly to 55% in 2008-09.

The rate of return excluding capital appreciation rose from 2.5% in 2005-06, (ranging from -1.5% in Tasmania to 4.7% in Western Australia) to 5.3% in 2008-09 (2.6% in New South Wales to 7.3% in Victoria). The rate of return from vegetable growing was higher in all states except Western Australia where the rate of return was marginally lower. However reflecting slower land price increases the national average rate of return declined from 9.8% in 2005-06 to 5.7% in 2008-09 if capital appreciation is included.

Changes in average levels of farm capital between 2005-06 and 2008-09 were modest, but there was a significant increase in farm debt from an average of $169,000 in June 2006 to $431,000 in June 2009 with the average equity ratio declining from 94% to 85% over this period.