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Financial performance
of farms in the Emerald region

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Farm cash income for broadacre farms in the Central Highlands region surrounding Emerald is projected to increase by over 40 per cent to $109 000 in 2004-05, driven largely by increased beef receipts from higher beef cattle prices and higher cattle turnoff. Farm cash incomes for farms in this region have generally been higher than the Queensland average for broadacre farms.

Over the past decade, increases in farm incomes for northern beef properties have resulted from a number of factors, including high beef cattle prices, increases in average herd size and increases in farm productivity.

Between 1988-89 and 2001-02, productivity growth on northern beef specialist properties was around 3.3 per cent a year, significantly higher than that of their southern counterparts. Factors contributing to this growth rate include increased branding and turnoff rates and lower death rates.

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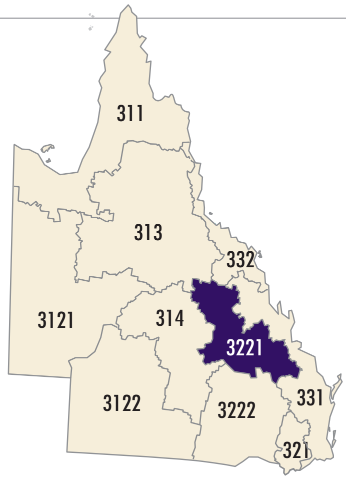
Farm performance

In this paper the financial performance of broadacre farms in the region surrounding Emerald is considered, along with the performance of broadacre farms in Queensland and nationally. The broadacre sector of agriculture is defined to include five industry types: wheat and other crops, mixed livestock–crops, sheep, beef and sheep–beef. In simple terms, broadacre farms are those that run beef cattle or sheep or grow grains, pulses or oilseeds or some combination of these activities.

1 **AAGIS regions in Queensland**



Broadacre farms account for the majority of farms in the region surrounding Emerald. In this paper, the region surrounding Emerald has been defined as region 3221 (map 1) in ABARE’s Australian agricultural and grazing industries survey. This region is broadly the Queensland Central Highlands and comprises the shires of Belyando, Peak Downs, Emerald, Duaringa, Bauhinia, Banana and Monto.

1 **Number of farms, by industry classification, Queensland Central Highlands**

	Peak Downs	Emerald	Duaringa	Bauhinia	Banana	Belyando	Central Highlands	
	no.	no.	no.	no.	no.	no.	no.	%
Beef cattle farming	68	114	187	153	616	113	1 251	*62*
Grain farming	61	35	13	42	91	51	293	*15*
Grain–livestock farming	34	15	22	32	100	37	240	*12*
All broadacre industries	163	164	222	227	807	201	1 784	*88*
Cotton growing	1	46	3	4	30	4	88	*4*
Crop and plant growing nec	1	3	0	0	44	2	50	*2*
Dairy cattle farming		2			15	1	18	*1*
Pig farming					16	1	17	*1*
Horse breeding	1	3			9	1	14	*1*
Vegetable growing		2		1	8		11	*1*
Other (includes fruit, poultry and eggs)	0	15	1	0	16	4	36	*2*
All industries	166	235	226	232	945	214	2 018	*100*

nec Not elsewhere classified.
Source: Australian Bureau of Statistics 2001 Agricultural Census.

According to the Agricultural Census conducted by the Australian Bureau of Statistics in 2001 there were 2018 farms in this region. Broadacre farms account for around 88 per cent of the farms in the region, of which 62 per cent were mainly dependent on beef cattle (beef industry) and 27 per cent produced grain (table 1).

Broadacre farm performance

The financial performance of Australian broadacre farms improved steadily in 2003-04 and 2004-05 as drought, which was most severe and widespread in 2002-03, receded in many parts of Australia. Over these years, prices for livestock and grains remained high in historical terms, assisting farmers to manage cash flow at a time of reduced production. High beef cattle prices over the past three years have been particularly important in maintaining or improving farm incomes because more Australian farms carry beef cattle than engage in any other farming enterprise.

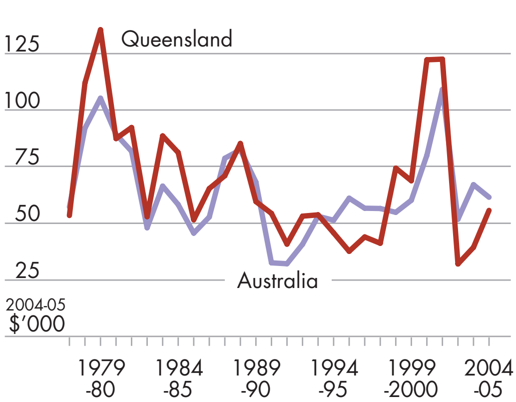
In 2003-04, farm cash income for Australian broadacre industries as a group increased from the drought reduced income in 2002-03 to slightly above the long term average in real terms (figure A). Near record winter crop receipts and high livestock receipts more than offset increases in total farm cash costs.

In 2004-05, however, lower grain production resulting from drier seasonal conditions combined with lower grain and wool prices are projected to lead to a fall in average farm cash income for broadacre farms in Australia of around 11 per cent to just below the long term average, in real terms, and similar to farm cash income in 1999-2000 (figure A).

Farm cash income is a measure of the cash funds available for farm investment and consumption after paying all costs incurred in production, including interest payments but excluding capital payments and payments to family workers. A longer term measure of profitability that takes account of capital depreciation and changes in inventories of livestock, fodder, grain, wool etc is farm business profit. Farm business profit for Australian broadacre industries is also expected to fall in 2004-05 and by a slightly larger amount than the reduction in farm cash income. While overall increases are expected in inventories of livestock on farms in 2004-05, these increases are expected to be smaller than in 2003-04 and grain and wool stocks are expected to fall.

Strong demand for rural land has resulted in rising capital values, offsetting the impact of

A Farm cash income
Broadacre farms



increases in working capital debt on farm equity, and historically low interest rates have assisted debt servicing. Rising farm capital values in recent years have resulted in reduced rates of return excluding capital appreciation, but have led to historically high rates of return including capital appreciation.

Queensland broadacre farms

Overall, broadacre farm cash income is forecast to rise in Queensland in 2004-05 (figure A) because of increased cash flow from the sale of beef cattle. However, average farm cash income on Queensland broadacre farms in 2004-05 continues to be affected by low production from both winter and summer grain crops.

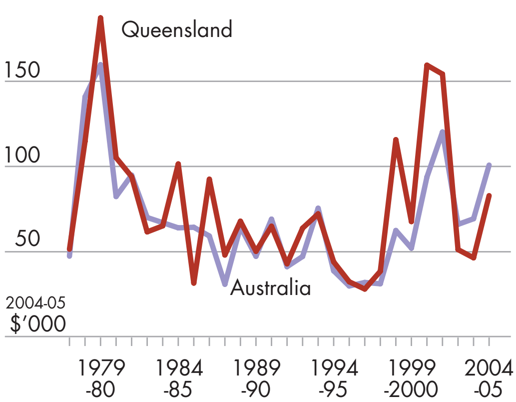
Higher rates of beef cattle turnoff in 2004-05 will result in a slightly smaller increase in farm business profit, the increase in beef cattle inventories being smaller in 2004-05 than in 2003-04.

Specialist beef properties

Overall, the financial performance of Australian beef farms is projected to strengthen further in 2004-05 (figure B), as beef cattle prices and turnoff have risen. After the drought in 2002-03 resulted in a reduction in beef cattle numbers, improved seasonal conditions in 2003-04 enabled many producers to begin rebuilding herds. A fall in the net turnoff of beef cattle (number of beef cattle sold less the number purchased) along with higher sale-yard prices and reduced expenditure on fodder purchases resulted in farm cash income rising in 2003-04. Increases in beef cattle numbers on properties resulted in an even larger increase in farm business profit.

At the national level, beef cattle turnoff is projected to increase in 2004-05, as producers respond to high saleyard prices and because of the return to drier seasonal conditions in parts of inland and northern Australia. Higher beef cattle prices and lower cash costs as beef cattle purchases are reduced from the record level in 2003-04 are forecast to result in farm cash income for specialist beef producers (beef industry properties with more than 300 beef cattle) rising to just over $100 000 — well above the long term average (in real terms) and similar to average income in 2000-01 and 2001-02.

B Farm cash income
Specialist beef farms



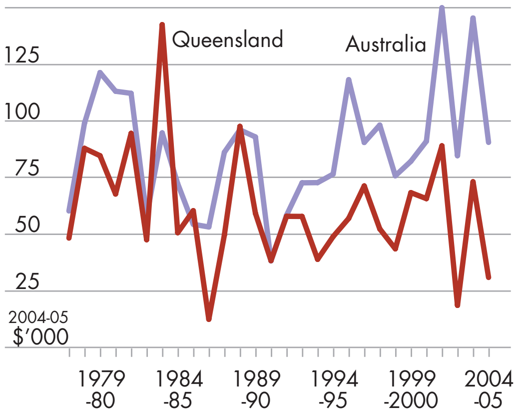
Farm cash income for Queensland specialist beef cattle properties is also projected to increase in 2004-05 (figure B), with higher saleyard prices and increased turnoff, particularly in northern and far western areas.

Grains industry farms

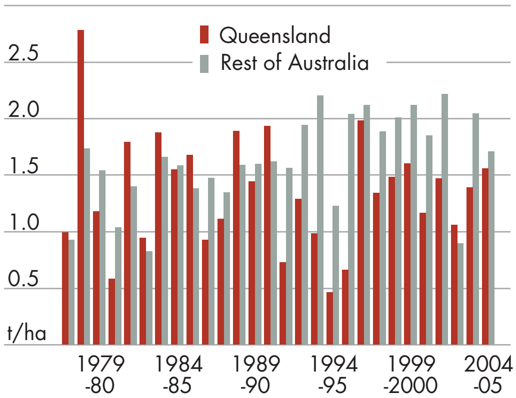
Since 1990-91, increases in the area planted to grains and relatively strong productivity growth have resulted in a steady improvement in the financial performance of Australian grains industry farms (figure C).

However, the average farm cash income of Queensland grains industry farms in the period since 1990-91 has remained substantially below the national average and has not shown the same rising trend as the national data (figure C). In part, the lower average performance of Queensland grains industry farms is a result of poorer grain yields in the period since 1990-91. Wheat yields for Queensland grains industry farms in the period 1977-78 to 1990-91 averaged 1.5 tonnes per hectare. In the period since, wheat yields have averaged 1.2 tonnes per hectare, almost 17 per cent lower, partly because of drier seasonal conditions. In contrast, average wheat yields for other grains industry farms in Australia, which averaged 1.4 tonnes per hectare over the period 1977-78 to 1990-91, rose by 30 per cent in the period since, to average 1.8 tonnes per hectare (figure D).

C Farm cash income
Grains industry farms



D Wheat yield
Grains industry farms

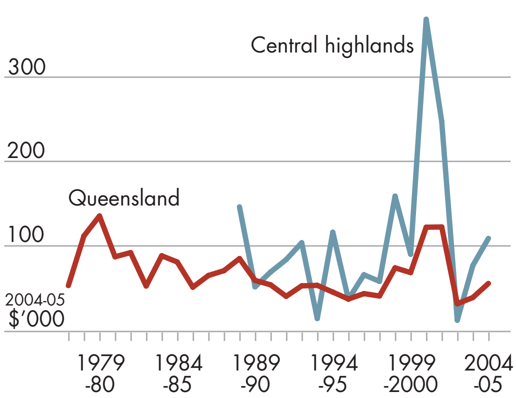


Farm cash income for grains industry farms rebounded strongly in 2003-04 from the drought reduced income of 2002-03, but is projected to fall markedly in all states, including Queensland, in 2004-05. Lower grain production caused by below average growing conditions for winter crops and lower grain prices are expected to result in a sharp fall in grain receipts in 2004-05. The impact of reduced winter grain production on farm receipts has been cushioned in Victoria, South Australia and Western Australia by payments from the 2003-04 harvest carried forward into 2004-05 and in southern Queensland by increased summer crop receipts.

Regional farm performance

Farm cash income for broadacre farms in the Central Highlands of Queensland (ABARE region 3221) is projected to increase in 2004-05, largely because of increased beef receipts (table 2) resulting from both higher beef cattle turnoff and high beef cattle prices. Farm cash income is projected to average $109 000 in 2004-05, up from $77 100 in 2003-04 and much higher than the 2002-03 average farm cash income of just $12 400, but well below the record farm cash incomes of 2000-01 and 2001-02 (figure E).

E Farm cash income
Broadacre farms



Only a relatively small increase in grain receipts is expected for 2004-05. Winter crop plantings were low in 2004 and growing season rainfall was below average, leading to a relatively small winter grain crop. In addition, there was a poor start to the 2004-05 sorghum season because of insufficient rainfall in spring 2004 to fill subsoil moisture levels. Minimal sorghum was sown for the early spring planting and the area sown for the main summer planting was reduced.

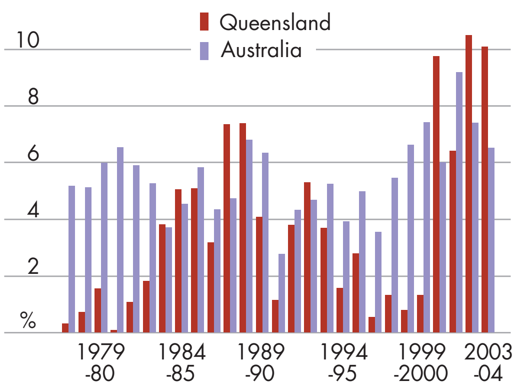
Purchases of beef cattle have been relatively high throughout the Central Highlands in both 2003-04 and 2004-05. Despite a sharp fall in expenditure on fodder in 2003-04, fodder expenditure has remained relatively high in historical terms in both 2003-04 and 2004-05 and expenditure on agistment has also remained high.

Increases in average farm debt for broadacre farms in the Central Highlands have partly resulted from land purchases. Increased demand for land has resulted in substantial increases in property values, which is then reflected in high rates of return for farms in 2002-03 and 2003-04 once capital appreciation is included.

Investment and land values

Improving farm financial performance during the late 1990s resulted in a sharp increase in the number of producers acquiring additional land to expand their enterprises (figure F). Following drought in 2002-03, lower profitability resulted in significantly fewer producers in southern Australia acquiring additional land, particularly producers in

F Farms expanding



2 Financial performance, broadacre farms
Average per farm

		Central highlands			Queensland		
		2002-03	2003-04 p	2004-05 s	2002-03	2003-04 p	2004-05 s
Physical							
Area operated at 30 June	ha	6507	6 866	7 036	11 899	11 933	11 966
Area cropped	ha	205	261	270	128	131	135
Beef cattle sold	no.	495	480	503	262	283	250
Beef cattle at 30 June	no.	1199	1 426	1 400	770	799	804
Cash receipts							
Crop sales	$	39 110	34 300	43 000	41 030	49 500	31 000
Sheep and lamb sales	$	6 250	7 100	10 000			
Wool sales	$	19 690	14 800	14 000			
Beef cattle sales	$	346 150	351 300	452 000	155 120	181 800	199 000
Other cash receipts	$	66 370	38 400	33 000	53 770	45 100	32 000
Total cash receipts	$	451 630	424 000	527 000	275 860	298 200	286 000
Cash costs							
Beef cattle purchases	$	47 390	44 100	46 000	23 620	47 700	36 000
Fodder	$	66 650	26 000	33 000	38 240	23 400	21 000
Agistment	$	6 110	7 900	16 000	4 920	5 000	5 000
Other cash costs	$	319 070	269 000	324 000	177 020	182 700	168 000
Total cash costs	$	439 220	347 000	419 000	243 800	258 800	230 000
Financial performance							
Total cash receipts	$	451 630	424 000	527 000	275 860	298 200	286 000
less total cash costs	$	439 220	347 000	419 000	243 800	258 800	230 000
Farm cash income	$	12 410	77 100	109 000	32 060	39 400	56 000
plus buildup in trading stocks	$	–19 610	46 800	–12 200	–29 880	19 100	9 000
less depreciation	$	30 570	33 700	35 000	23 730	23 700	22 000
less operator / manager and family labor	$	47 230	56 000	61 000	46 350	48 000	52 000
Farm business profit	$	–85 010	34 200	11 000	–67 900	–13 300	–10 200
Rate of return excluding capital appreciation	%	–1.0	1.5	0.7	–1.8	0.1	0.1
Rate of return including capital appreciation	%	14.8	8.2	na	8.5	9.0	na
Farm capital and debt							
Total farm capital at 30 June	$	5 070 910	6 888 500	na	3 075 160	3 199 500	na
Net capital additions	$	21 600	99 900	na	37 380	24 800	na
Farm debt at 30 June	$	422 730	687 800	714 000	269 110	272 400	280 000
Equity ratio at 30 June	%	91	89	na	91	90	na
Other							
Farm management deposits at 30 June	$	37 520	27 900	na	21 740	21 500	na
Liquid assets including FMD at 30 June **a**	$	189 990	241 800	na	104 530	123 200	na
Percent of farms holding FMD at 30 June **a**	%	17	24	na	12	17	na
Off-farm income	$	25 400	27 200	na	24 680	19 200	na

a FMD = farm management deposits. **p** Preliminary estimate. **s** Projection based mainly on November telephone surveys. **na** Not available.

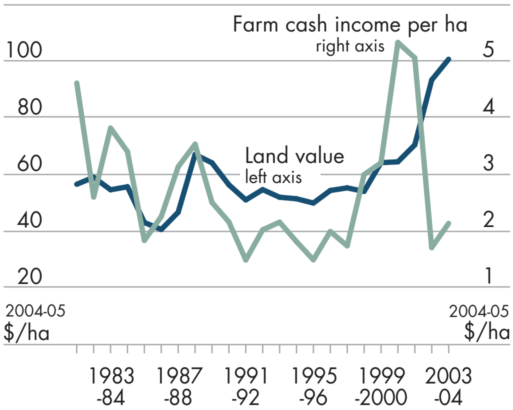
grain growing areas. In contrast, the proportion of producers acquiring additional land remained historically high in Queensland, particularly among specialist beef properties. Despite historically low farm cash incomes in 2002-03 and 2003-04, more than 10 per cent of Queensland broadacre farms acquired additional land in 2002-03 and 2003-04, compared with less than 7 per cent of farms nationally.

Broadacre producers acquiring additional land in recent years have, on average, been younger and operate properties that generate better than average rates of return in the period prior to land acquisition.

In real terms, land values for Queensland beef properties increased modestly between 1988-89 and 2001-02. However, land values rose sharply in 2002-03 (figure G), particularly in northern pastoral areas. Increases in land values have resulted from a number of factors, including higher farm incomes and lower interest rates as well as the general increase in property prices in Australia since 1997.

Land prices in northern Australia increased sharply after 2001-02 following a prolonged period of high farm cash income (figure G). Prices continued to increase in 2003-04 despite the impact of drought and the downturn in the live cattle export trade. In contrast, land values in southern Australia fell slightly in 2002-03. The increase in prices for land in northern pastoral areas in 2002-03 and in 2003-04 appears to have resulted from a number of factors, including expansion of large family owned properties and demand for additional grazing area from drought affected producers with substantial profits earned in previous high income years.

G Farm incomes and land values
Northern Australia a



a Queensland, Northern Territory, and Kimberly and Pilbara regions of Western Australia.

Productivity

Increases in farm incomes for northern beef properties over the past decade have resulted from a number of factors, including higher prices received for beef cattle, increases in average herd size and increased on-farm productivity.

Productivity growth is a measure of the gains from technological change and the adoption of better farming methods to improve on-farm efficiency. The key measure of improvement in the productivity of the beef industry is total factor productivity. This is calculated by dividing an index of the volume of total outputs by an index of the volume of total inputs. The adoption of new technology and farm management practices may lead to appreciable gains in labor productivity and increases in beef cattle turnoff rates and slaughter weights.

Productivity growth on specialist beef properties grew on average by an estimated 1.8 per cent a year between 1977-78 and 2001-02, growing faster in northern Australia than in southern Australia (table 3). Total factor productivity for northern beef specialists grew at an average annual rate of 2.2 per cent over the period 1977-78 to 2001-02.

Growth in total factor productivity for northern beef specialists accelerated to a rate of 3.3 per cent a year in the period 1988-89 to 2001-02, compared with much lower growth of 1.1 per cent a year in the period 1977-78 to 1989-90 (table 3). Stronger growth in the more recent period coincided with major developments in the northern beef industry, including the emergence of the live cattle export trade, which has enabled smaller and younger animals to be turned off. In contrast, productivity growth in southern Australia slowed in the past decade. Productivity growth rates for labor and capital in the north were both over 90 per cent higher than in the south.

3 Beef specialist farms annual growth rates, 1977-78 to 2001-02

	Australia	North a	South
	%	%	%
Total factor productivity			
Outputs	1.8	2.5	1.0
Inputs	–0.1	0.3	–0.2
Productivity	1.8	2.2	1.3
Partial productivity			
Labor	2.4	3.1	1.6
Capital	3.1	3.9	2.0
Purchased inputs	0.8	0.9	0.7
Land	1.6	1.6	2.7
Input use			
Labor	–0.6	–0.6	–0.5
Capital	–1.4	–1.4	–1.0
Purchased inputs	0.9	1.6	0.3
Land	0.2	0.9	–1.6
Prices			
Prices received	3.3	3.3	3.2
Prices paid	4.8	4.7	4.7
Terms of trade	–1.4	–1.4	–1.5
Changing total factor productivity growth over time			
1977-78 to 1989-90	1.4	1.1	2.9
1988-89 to 2001-02	2.1	3.3	–0.5
1977-78 to 2001-02	1.8	2.2	1.3

a The northern region is defined as Queensland, the Northern Territory and the Kimberly and Pilbara regions of Western Australia.

In addition, beef specialists with large herds achieved higher total factor productivity growth than their smaller counterparts. Over the period 1977-78 to 2001-02, total factor productivity growth rates of the largest third of northern beef specialists were more than 2.2 per cent a year, while total factor productivity is estimated to have declined slightly among the smaller two-thirds of northern beef specialist properties.

Northern beef properties achieved higher annual growth in branding and turnoff rates than southern properties in the period 1977-78 to 2001-02 (table 4). They also achieved a greater rate of decline in the death rate. Increased branding and turnoff rates in northern Australia are likely to be caused by a range of factors, including the increase in the proportion of *Bos indicus* type cattle more suited to the tropics; the targeting of the live export market, leading to turnoff of younger cattle; and improvements in herd management and capital use, including improved mustering techniques and increased fencing.

4 Herd performance measures for beef specialist farms Average annual changes 1977-78 to 2001-02

	Australia	North	South
	%	%	%
Branding rate	0.9	1.1	0.3
Turnoff rate	0.7	1.4	–0.9
Death rate	–4.5	–4.9	–2.6
Total factor productivity	1.8	2.2	1.3

The time series used in the analysis of productivity presented here includes the major drought years of 1982-83 and 1994-95, but not the drought of 2002-03. This drought will have serious negative impacts on productivity growth, with the impact to be felt for several more years as producers rebuild herds. Some developments in the beef industry over the past two decades are likely to have reduced the impact of drought and contributed substantially to productivity growth. These developments include the large increase in grain feeding to finish store cattle, the growth of the live cattle trade and the improvement in road transport to facilitate movement of livestock and fodder.