

GRAINS INDUSTRY

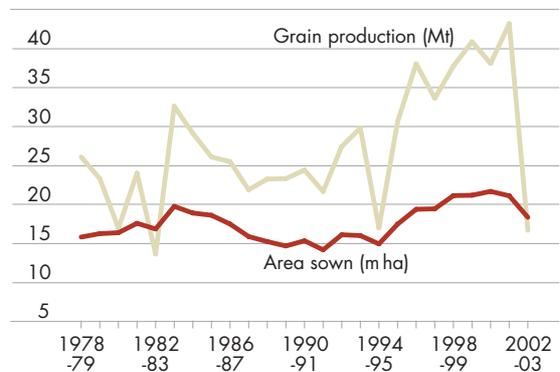
Performance and outlook

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The Australian grains industry has achieved substantial productivity gains over the past ten years. Between 1991-92 and 2001-02, the area sown to grains increased by 50 per cent, while production expanded by over 90 per cent (figure A). There has been a strong incentive to achieve these productivity gains as Australian farmers have faced a continuing decline in the real prices that they receive for their grain on world markets. Finding further productivity gains, reducing cost along the marketing chain and managing sustainable resource use will be central to the industry's longer term development.

As part of the drive to enhance the industry's long term competitiveness the Grains Research and Development Corporation (GRDC) funds a range of survey and analytical research by ABARE. This publication draws heavily on information obtained from grain farms included in ABARE's Australian agricultural and grazing industries survey, a project partly funded by the GRDC.

A Grains industry



The majority of farms growing grains also have significant livestock enterprises, usually sheep or cattle or a combination of both. Here, farms classified in the wheat and other crops industry are referred to as specialist grain farms, those in the mixed livestock-crops industry are referred to as mixed livestock-grain farms and the two categories combined are classified as grains industry farms. The combined industry grouping accounts for around 33 200 farms and around 95 per cent of the total value of grain production.

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Trends in crop production

Production of grains has trended upwards since the early 1990s (figure A). However, the 2002-03 season was affected by severe drought across nearly all major grain producing areas of Australia. After record grain production of 39.7 million tonnes in 2001-02, total winter grain production is estimated to have reached only 15.4 million tonnes in 2002-03. Wheat production is estimated to have declined by 62 per cent to 9.4 million tonnes and barley by a similar proportion to 3.3 million tonnes in 2002-03. Of the other major winter grains, canola production is estimated to have fallen by around two-thirds and lupin production by just over half.

New South Wales and Victorian producers were the most severely affected by the drought — the 2002-03 crop was the lowest winter New South Wales crop since 1994-95. In South Australia production fell sharply from the record crop of the previous year. In Western Australia very low crop yields were recorded in the north eastern and central grain growing areas of the state, leading to the lowest harvest since 1987-88.

In addition, summer grain production is forecast to decline by around 62 per cent from the 2001-02 harvest, with the largest decline, once again, forecast for New South Wales. Summer crop production has also been severely affected by a shortage of irrigation water, resulting in a major reduction in the area sown to cotton and rice.

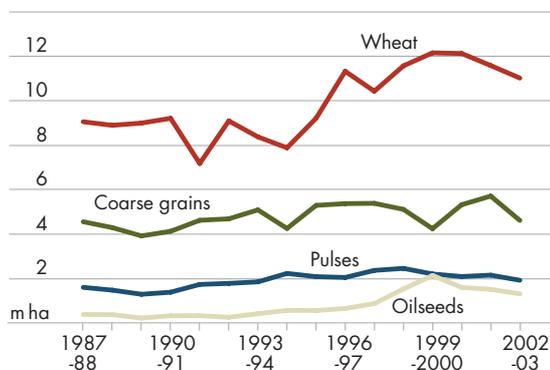
Return to average seasonal conditions from autumn 2003 would be expected to result in grain production rebounding strongly in 2003-04 as it has done previously following similar widespread droughts in 1994-95 and 1982-83 (figure A).

Increased production of grains since the early 1990s partly reflects an increase in the area sown to crops over this period as mixed sheep and grain producers, in response to low wool prices, reduced their sheep numbers. At the same time there have been continued productivity gains in the grains industry — essentially more output per unit value of input. Increased productivity has contributed to an increase in the profitability of grains production relative to livestock production.

This change in enterprise mix between livestock and crops has been most strongly reflected in increased wheat production over the past twelve years (figure B). In

addition, since the mid-1990s, canola and pulse crops have played an important role in crop rotations as farmers used different crop rotations to manage disease. However, in the past three years, the area sown to canola has declined as some growers encountered difficulties in achieving consistent yields and production. Coarse grains, particularly barley and sorghum, have also formed an integral part in crop rotations. The area sown to barley and sorghum has varied depending on seasonal conditions and the relative expected returns.

B Area sown to grains



Value of production and exports

The gross value of production of the Australian grains industry was \$10.3 billion in 2001-02 — around a quarter of the total value of farm production. Over the past five years the gross value of production for the grains industry has increased by around 16 per cent mainly reflecting a significant rise in production. However, in 2002-03 the gross value of grain production is forecast to fall by more than half to \$4.7 billion as a result of the impact of the drought.

In recent years Australia has exported around 60 per cent of its grain production, with wheat and barley accounting for 62 per cent and 19 per cent respectively of total grain exports. The major markets for Australian wheat include Egypt, Iran, Iraq, Indonesia, Japan and the Republic of Korea — these countries taking just under two-thirds of Australia's wheat shipments in 2001-02. The major markets for Australian barley include China (malting barley), Japan (feed and malting barley) and Saudi Arabia (feed barley). Australian canola is exported to China, Japan and Pakistan.

Medium term outlook for grains

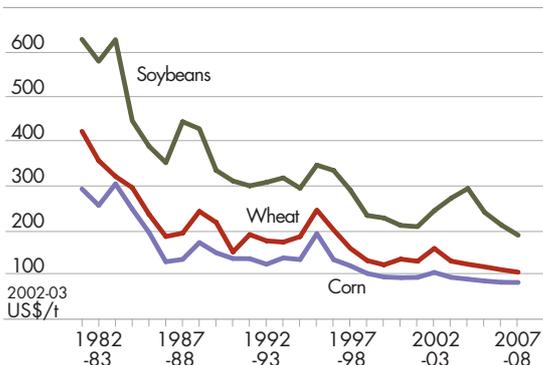
Increased grain production and sluggish growth in demand are expected to result in weaker grain prices over the next year. Grain production in north America and Australia in 2003-04 is expected to increase sharply from the drought affected crops of the previous year. However, consumption of food and feed grains is expected to remain subdued as a result of relatively slow economic growth and limited increases in meat production, particularly in the United States. With stronger growth in demand for oilseeds and oilseed products, a limited increase in world oilseeds prices is forecast for 2003-04.

Over the next five years world grain prices are projected to decline in real terms as farmers in the major producing countries make further productivity improvements. Increased productivity has enabled grain production to continue to expand, even as prices in real terms have fallen (figure C).

With some improvement in world economic activity expected over the next few years, the rate of increase in grain consumption is forecast to pick up. Much of the growth in world grain demand is expected to come from increased consumption of oilseeds and coarse grains, reflecting a shift away from wheat and rice based staple foods toward more processed and higher protein based products such as meat. The shifts in patterns in grains use reflect improved per person incomes in developing countries with associated changes in dietary patterns.

Growth in feed grain consumption is expected to be concentrated in the United States, China, the Russian Federation, eastern Europe and south east Asia. Income growth and a consequent rise in demand for meat products and more processed foods will be the key factors causing a growth in the intensive feeding industries in China and south east Asia.

C World grain prices





Policy developments in the major producing and consuming countries such as China, the United States, the European Union, India and Brazil will be important in influencing production and consumption in these countries. Grain production from the enlarged European Union can be expected to increase as these new member countries integrate their agricultural sectors into the European Union. In the United States the new farm bill (signed in 2002) is expected to maintain the total area under program crops over the next five years.

Significant potential exists for both Argentina and Brazil to further increase production of grains and oilseeds over the next five years — particularly for soybeans. Production growth will be dependent on factors such as the rate of increase in new crop land, continued transport and infrastructure developments, adoption of new technologies and the effect of ongoing economic reforms.

Australian cropping outlook

On the assumption that there is an autumn break to the drought, it is likely that there will be a sharp increase in the area sown to grains in Australia in 2003. In the short term producers are expected to turn to cropping enterprises to improve farm incomes. As a result the area sown to winter grain crops is forecast to increase by around 12 per cent to a record 20.5 million hectares. Given average seasonal conditions, total winter crop production would be nearly 37 million tonnes, up by more than 21 million tonnes from 2002-03.

After 2003-04 the area sown to grains and oilseeds in Australia is projected to decline. The main factor driving this outcome is a switch in resource use as sheep producers expand their flocks in response to favorable wool and sheep meat prices. The total area sown to grains in 2007-08 is projected to be 7 per cent lower than the average crop area sown in the period 1998-99 to 2000-01. However, assuming average seasons and a continuation of the trend in yield improvements, total Australian grain production is projected to fall only slightly over this period.

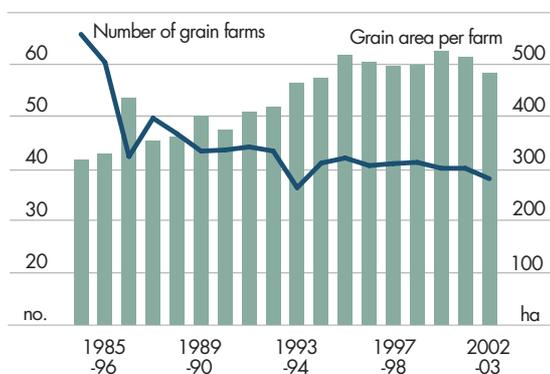
Real grain prices are projected to fall in the three years to 2005-06 and then remain flat. In contrast, wool prices are projected to rise in the next two years then decline over the remainder of the period. Consequently, it is expected that the movement of resources from cropping toward wool production will slow toward the end of the next five years.

The rate of transfer of resources from crops to sheep based enterprises is likely to be influenced by factors in addition to the expected change in relative returns. For example, many grain growers have made substantial investments in capital equipment for grain production over the past twelve years and this is likely to be important in influencing farmers' choices about future enterprise mixes.

Farm area

In common with producers in other agricultural industries, falls in prices received for grains relative to the price of farm inputs have led grain producers to focus on improving productivity and expanding farm size to increase profitability. Between 1977-78 and

D Australian grain farms



2001-02, the average area operated by grains farms increased by 34 per cent and the number of grain producing farms fell by a third. This has enabled an increase of more than 25 per cent in the average area planted to crops per farm (figure D). Wheat area planted per farm has increased by 40 per cent, beef cattle numbers by 32 per cent and sheep numbers by 27 per cent.

In addition, productivity improvements over this period have resulted in wheat yields increasing by 42 per cent. Consequently, wheat production on the typical grain farm more than doubled in the 25 years to 2001-02 (figure E).

Improving farm financial performance in the late 1990s and early 2000s resulted in an increase in the number of farms acquiring additional lands (figure F). One consequence of this has been the exit from agriculture of a number of smaller, less profitable farming enterprises.

Farm financial performance

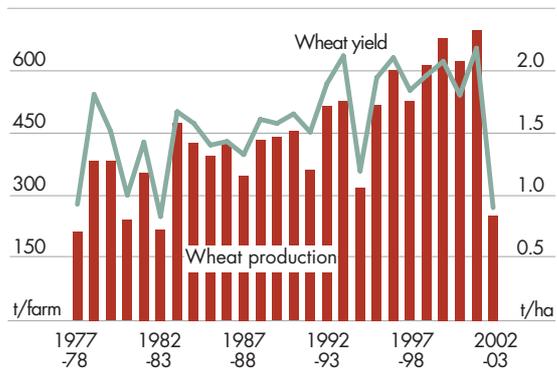
ABARE measures the financial performance of farms and publishes a number of indicators to observe how effectively farmers are adjusting to financial pressures.

Receipts

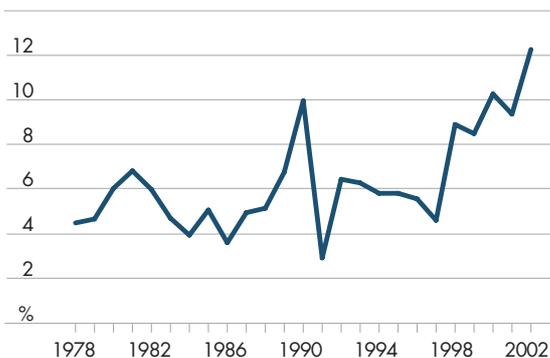
Sales of cereals, oilseeds and pulses, have on average, accounted for over 65 per cent of cash receipts on grains industry farms in recent years. Earnings from wheat are the major component of grain farm receipts (table 1).

Total livestock receipts, including wool receipts, accounted for just over a quarter of total cash receipts on average. Receipts from beef cattle are the major source of

E Wheat yield and production
Average per farm



F Proportion of grains industry farms acquiring additional land



Major financial performance indicators

Farm cash income = **total cash receipts** - **total cash costs**
Total revenues received by the farm business during the financial year Payments made by the farm business for materials and services and for permanent and casual hired labor (excluding owner manager, partner and family labor)

Farm business profit = **farm cash income** + **changes in trading stock** - **depreciation** - **imputed labor costs**

Profit at full equity = **farm business profit** + **rent** + **interest and finance lease payments** + **depreciation on leased items**
(Return produced by all the resources used in the farm business)

Rate of return = **profit at full equity** ÷ **total opening capital** × 100
(Return to all capital used)

1

Financial performance, by state Average per farm

Grains industry farms

	New South Wales			Victoria			Queensland			
	2000 -01	2001 -02 p	2002 -03 s	2000 -01	2001 -02 p	2002 -03 s	2000 -01	2001 -02 p	2002 -03 s	
Physical										
Wheat sown	ha	305	275	193	164	187	201	164	83	94
Sheep flock at 30 June	no	1 737	1 683	1 460	1 421	1 313	1 082	57	63	45
Beef herd at 30 June	no	156	170	157	22	28	28	187	203	214
Total area sown to crops	ha	532	502	357	447	465	428	383	288	230
Wheat production	t	700	673	163	471	465	110	191	130	95
Cash receipts										
Sheep	\$	36 090	53 600	48 000	29 400	46 800	33 000	700	900	1 000
Beef cattle	\$	44 940	48 300	37 000	9 140	7 900	7 000	62 060	53 900	48 000
Wool	\$	38 800	41 300	42 000	31 350	30 900	36 000	830	1 700	2 000
Wheat	\$	114 150	141 600	34 000	85 240	114 100	24 000	38 480	31 400	20 000
Barley	\$	16 500	18 700	8 000	47 710	53 500	13 000	2 160	20 900	4 000
Sorghum	\$	7 600	7 900	13 000	0	0	0	29 370	31 000	32 000
Pulses	\$	9 340	17 700	4 000	25 900	23 800	5 000	5 650	10 600	4 000
Oilseeds	\$	24 380	25 800	6 000	19 130	24 500	16 000	3 470	8 600	2 000
Total cash receipts	\$	383 580	441 900	231 000	284 730	348 200	152 000	234 520	207 000	176 000
Cash costs										
Hired labor	\$	10 230	10 300	8 000	3 310	3 200	3 000	7 760	6 600	6 000
Fertiliser	\$	33 290	30 500	22 000	20 320	24 500	18 000	9 620	9 000	10 000
Crop and pasture chemicals	\$	25 900	20 800	15 000	16 360	17 000	13 000	12 980	11 400	11 000
Fuel, oil and grease	\$	26 410	25 200	22 000	17 750	16 700	15 000	19 090	15 900	16 000
Repairs and maintenance	\$	40 800	42 400	20 000	24 710	31 000	13 000	24 420	28 700	16 000
Contracts paid	\$	16 770	19 100	12 000	7 610	8 900	7 000	9 230	8 800	7 000
Freight, handling and marketing	\$	27 560	32 300	17 000	23 510	22 300	10 000	8 570	7 400	6 000
Interest	\$	24 480	22 500	23 000	15 520	14 700	17 000	14 190	11 100	15 000
Total cash costs	\$	292 030	286 900	229 000	183 130	190 500	143 000	174 200	147 200	150 000
Financial performance										
Farm cash income	\$	91 550	155 000	2 000	101 590	157 700	9 000	60 320	59 800	26 000
Farm business profit	\$	26 310	87 800	- 83 000	42 210	93 400	- 76 000	- 5 780	8 600	- 32 000
Profit at full equity	\$	54 630	117 000	- 55 000	62 520	115 800	- 54 000	11 310	27 300	- 10 000
Profit at full equity including capital appreciation	\$	132 700	241 200	na	100 940	168 900	na	62 610	90 600	na
Total capital at 1 July	\$	1 481 520	1 760 700	1 844 000	1 193 600	1 348 000	1 435 000	1 196 310	1 366 500	1 517 000
Rate of return										
- excluding capital appreciation	%	3.7	6.6	-3.0	5.2	8.6	-3.8	0.9	2.0	-0.7
- including capital appreciation	%	9.0	13.7	na	8.5	12.5	na	5.2	6.6	na

Continued ⇨

1

Financial performance, by state Average per farm

Grains industry farms *continued*

		South Australia			Western Australia			Australia		
		2000 -01	2001 -02 p	2002 -03 s	2000 -01	2001 -02 p	2002 -03 s	2000 -01	2001 -02 p	2002 -03 s
Physical										
Wheat sown	ha	351	330	314	713	692	606	346	320	279
Sheep flock at 30 June	no	1 197	1 180	1 283	2 592	3 052	3 130	1 531	1 561	1 482
Beef herd at 30 June	no	28	29	31	14	48	39	86	100	96
Total area sown to crops	ha	1 177	1 223	650	658	627	1 076	640	622	539
Wheat production	t	668	829	309	901	1 267	603	624	698	253
Cash receipts										
Sheep	\$	24 600	35 400	34 000	42 720	60 900	61 000	29 550	43 200	39 000
Beef cattle	\$	8 020	7 700	5 000	3 100	7 700	7 000	26 140	26 700	22 000
Wool	\$	23 460	27 100	41 000	60 470	72 500	92 000	33 980	37 300	44 000
Wheat	\$	118 090	189 800	72 000	180 140	286 400	135 000	112 160	156 800	56 000
Barley	\$	78 200	95 900	62 000	24 150	72 400	55 000	32 670	49 300	27 000
Sorghum	\$	0	0	0	0	0	0	6 190	6 700	8 000
Pulses	\$	16 670	18 100	4 000	20 680	26 200	11 000	15 290	19 400	1 000
Oilseeds	\$	8 680	15 600	11 000	14 680	30 700	37 000	16 200	22 400	16 000
Total cash receipts	\$	325 670	433 900	299 000	377 260	607 000	446 000	334 800	421 400	262 000
Cash costs										
Hired labor	\$	4 820	4 000	4 000	12 670	12 300	11 000	8 160	7 700	7 000
Fertiliser	\$	27 330	29 700	30 000	62 560	75 500	62 000	32 320	34 700	29 000
Crop and pasture chemicals	\$	18 840	24 000	22 000	38 000	40 500	39 000	23 500	23 000	20 000
Fuel, oil and grease	\$	20 110	19 200	20 000	28 240	26 200	26 000	23 100	21 400	20 000
Repairs and maintenance	\$	32 130	33 600	23 000	46 750	53 700	31 000	35 320	38 900	21 000
Contracts paid	\$	4 850	7 600	7 000	9 000	14 000	8 000	10 560	12 800	8 000
Freight, handling and marketing	\$	33 310	40 600	34 000	46 570	69 600	42 000	28 950	35 500	21 000
Interest	\$	18 490	16 800	20 000	36 260	30 000	39 000	22 680	19 900	23 000
Total cash costs	\$	200 720	231 500	221 000	347 080	404 100	360 000	251 130	261 900	226 000
Financial performance										
Farm cash income	\$	124 950	202 500	78 000	30 180	202 900	86 000	83 680	159 500	36 000
Farm business profit	\$	42 390	137 600	4 000	-80 320	127 700	-11 000	7 910	94 000	-45 000
Profit at full equity	\$	64 270	159 600	30 000	-38 970	167 300	37 000	34 630	121 200	-16 000
Profit at full equity including capital appreciation	\$	149 760	283 100	na	18 350	310 500	na	99 410	227 200	na
Total capital at 1 July	\$	1 147 240	1 268 500	1 496 000	1 956 040	2 167 900	2 355 000	1 422 730	1 618 100	1 756 000
Rate of return										
- excluding capital appreciation	%	5.6	12.6	2.0	-2.0	7.7	1.6	2.4	7.5	-0.9
- including capital appreciation	%	13.1	22.3	na	0.9	14.3	na	7.0	14.0	na

p Preliminary estimates. s Provisional estimates. na Not Available.



livestock based income in Queensland, while in all other states, sheep and wool sales are the main sources of income from livestock.

Costs

Repairs and maintenance; freight, marketing and handling; and fertiliser costs have been the largest cost items for farms in all states except Queensland in 2000-01 and 2001-02 (table 1). Fertiliser costs accounted for 13 per cent of total cash costs, on average, and varied from a low 6 per cent in Queensland to a high of 17 per cent in Western Australia, where soils are generally low in both nitrogen and phosphorus.

Crop and pasture chemical costs were, on average, the next largest cost item, reflecting the increased use of minimum tillage cropping. Crop and pasture chemical costs as a percentage of total cash costs ranged from 12 per cent in Western Australia to 8 per cent in Queensland and New South Wales. Generally, grains farms with relatively higher expenditures on crop chemicals have lower expenditure on fuel and oil because of reduced cultivation.

Hired labor costs continue to be a relatively minor cost component, averaging around 3 per cent of total cash costs. Hired labor costs as a percentage of total cash costs have remained at below 5 per cent of total cash costs for the past twenty years.

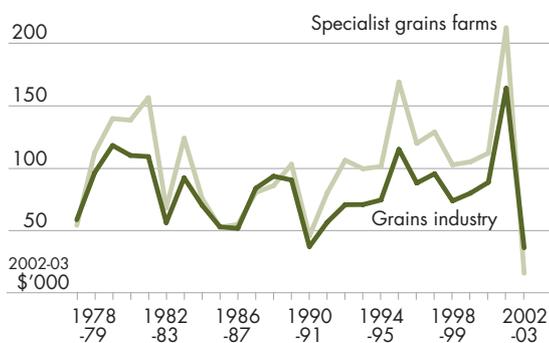
Farm cash income

Since 1990-91, the relatively higher returns from grains enterprises compared with the major broadacre livestock industries has meant that average farm incomes have been higher on specialist grain industry farms than in grains industry farms in general (figure G). However, the drought is expected to reverse this pattern in 2002-03. Incomes for mixed livestock-cropping farms will fall by a relatively smaller amount because of increased livestock turnoff combined with higher wool prices.

In 2002-03 receipts from grain sales are forecast to fall by 45 per cent and despite reductions in expenditure on crop harvesting and marketing, fuel, fertiliser and repairs and maintenance, average farm cash income for the grains industry is forecast to fall by 78 per cent. However, this fall is from a record farm cash income in 2001-02, the highest recorded in the past twenty six years.

It is worth noting that included in 2002-03 cash costs is a substantial proportion of the estimated costs involved in preparing and planting the 2003-04 winter crop.

G Farm cash income, grains industry



Rates of return

Rates of return to capital and management (excluding capital appreciation) for grains industry farms exceeded the average for the previous decade of 2.0 per cent in both 2000-01 and 2001-02. At the national level, rates of return for grains industry farms averaged 7.5 per cent in 2001-02. In both 2000-01 and 2001-02 rates of return were highest in South Australia reflecting that state's record crop production in both years (table 1).

In addition, farms in all states recorded substantial capital appreciation during both 2000-01 and 2001-02 averaging over \$170 000 at the national level and resulting in rates of return including capital appreciation of 7 per cent and 14 per cent respectively in 2000-01 and 2001-02.

Investment

The average capital value for grains industry farms was an estimated \$1.76 million at 1 July 2002 (table 1). During the 1990s, changes to total farm capital generally followed the movement in farm cash incomes in the grains industry.

During the 1980s, there was a downward trend in capital expenditure on farms. However, since 1990-91, improved incomes for cropping farms combined with falling interest rates in recent years have led to an increase in expenditure on plant, machinery and land to expand farm (figure H).

In recent years, expenditure on additions to plant and equipment (including leased items) has comprised over half of the annual investment on grains industry farms and has closely followed farm cash income.

Debt and equity

The increase in investment has also been associated with higher levels of debt. Since the previous recent high point in farm incomes in 1995-96, average farm debt for grains industry farms (excluding harvest loans) has increased strongly, rising by around 31 per cent in real terms (figure H).

Generally, farms entered the 2002-03 drought in a relatively strong financial position. Several successive years of above average financial performance prior to 2002-03 enabled many grain producers to build up the cash assets that they maintain to meet short term funding commitments. These cash assets include farm management deposits.

Grains industry farms entered the drought with an average of almost \$125 000 in cash assets, or the equivalent of a typical year's farm cash income. As a consequence, provided that drought is not prolonged beyond autumn 2003 increases in debt may be less than in previous widespread droughts.

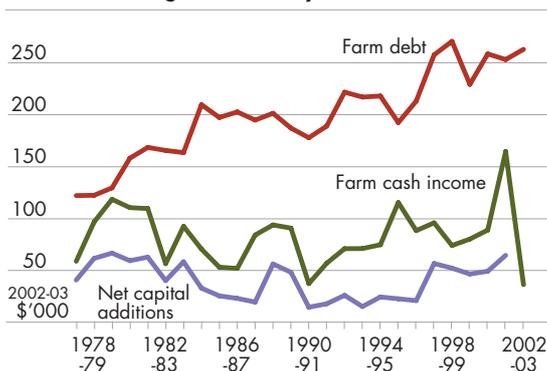
Performance indicators for the grains industry

In conjunction with the Grains Research and Development Corporation, ABARE has developed a range of performance indicators for the grains industry based on data from the Australian agricultural and grazing industries survey.

The indicators cover farm financial performance and physical resource sustainability. Indicators provide the grains industry with information that will help the grains industry in setting benchmarks and in monitoring its performance and in achieving goals critical to the industry's international competitiveness and the sustainability of grain production.

A small selection of performance indicators is provided in table 2 for GRDC regions and agroecological zones. The full range of indicators for regions and

H Capital expenditure, debt and farm cash income, grains industry





agroecological zones together with definitions and additional background information are available on ABARE's web site (www.abareconomics.com).

Indicators of farm financial performance

There was a wide range in financial performance among farms in each GRDC region and agroecological zone. Overall, at the national level, the farms classified to the top performing category, for the period 1999-2000 to 2001-02, earned disposable incomes per family (average of \$157 500, table 2) more than double the average for all grain farms (\$71 800). Rates of return for the top performing group (average of 10.1 per cent for all grain farms) were typically more than three times the average for all grain farms (3.2 per cent).

A similar pattern was exhibited at a regional level, with disposable income per family in the top 25 per cent being around double the regional average. Disposable income in the top 25 per cent of farmers was the highest in the Southern region despite the smaller average farm size, mainly because of the dry seasonal conditions in both the Western and Northern regions in 2000-01 and 2001-02.

Existence of a farm business plan is included as an indicator to gain a sense of the farm manager's longer term planning initiatives. A much higher proportion of farms in the Western region had farm business plans, although large differences were recorded between regions. Interestingly, a much higher proportion of farms in the Western region had farm business plans, although large differences were recorded between regions.

Indicators of physical resource sustainability

Indicators have been chosen to cover a range of factors, including the maintenance of soil structure, the control of weeds, and the maintenance of soil chemical fertility. Results for the full range of indicators are available on ABARE's web site.

The existence of a farm plan is one example (table 2), included to gain a sense of the farm's longer term planning in managing its physical resources. The definition of a farm plan used was an approved farm plan, which could include a map and other documents describing soil and land capability, that addresses the present farm situation and includes future management and development plans.

Among farms in each GRDC zone there was a wide range in the level of the various physical resource sustainability indicators. Overall, at the national level, farms classified to the top-performing category, for the period 1999-2000 to 2001-02, generally had higher adoption levels of many of the indicators compared with farms in the bottom performing category. This was particularly the case for the proportion of farms with a farm plan.

2 Selected performance indicators, by agroecological region Average per farm

Cropping industry, average 1999-2000 to 2001-02

Indicator	Rate of return			Operating costs to income			Disposable income per family ^b		
	Average	Top 25% ^a	Bottom 25% ^a	Average	Top 25% ^a	Bottom 25% ^a	Average	Top 25% ^a	Bottom 25% ^a
	%	%	%	%	%	%	\$	\$	\$
Grains industry	3.2	10.1	-5.7	64	55	87	71 833	157 489	7 372
Western region	1.8	8.1	-5.6	69	59	91	53 116	145 781	-32 622
Western Australia									
Sandplain – Mallee	3.1	6.4	ns	67	57	ns	66 617	132 537	ns
Western Australia Northern	1.7	10.5	-5.1	70	60	95	70 968	177 685	22 032
Western Australia Eastern	2.8	10.2	ns	67	55	ns	24 661	156 570	ns
Western Australia Central	1.6	7.1	-5.8	69	60	89	55 741	132 667	-50 011
Southern region	4.3	11.5	-5.1	60	51	82	78 564	160 802	20 528
South Australia Midnorth– Lower Yorke, Eyre	6.0	13.6	-2.9	53	47	72	94 514	202 977	28 249
South Australia and Victoria Mallee	3.5	13.0	-5.4	61	50	79	65 867	133 652	20 878
South Australia and Victoria Bordertown–Wimmera	4.9	11.0	-5.5	55	48	84	88 997	180 542	28 942
Victorian and Tasmanian High Rainfall	5.8	9.5	-2.9	55	51	78	90 032	161 583	19 207
New South Wales and Victoria Slopes	3.0	9.9	-6.1	60	50	83	57 430	130 242	7 819
New South Wales Central	4.2	11.7	-6.8	67	58	94	96 924	176 529	22 589
Northern zone	2.4	9.0	-7.3	67	61	94	69 189	156 440	-5 593
New South Wales North West and Queensland South West	3.6	10.6	-8.4	69	66	115	100 677	245 599	-40 353
Queensland Central	6.3	10.7	ns	64	55	ns	186 008	248 376	ns
New South Wales North East and Queensland South East	1.7	8.2	-7.5	67	58	85	60 847	132 331	4 768

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2 Selected performance indicators, by agroecological region

Cropping industry, average 1999-2000 to 2001-02 Average per farm Continued

	Farm business plan			Farm plan		
	Average	Top 25 % ^a	Bottom 25 % ^a	Average	Top 25 % ^a	Bottom 25 % ^a
	%	%	%	%	%	%
Grains industry	11.8	13.4	4.1	17.5	19.4	9.5
Western region	21.1	24.3	6.6	25.0	24.3	6.6
Western Australia Sandplain – Mallee	43.1	ns	ns	43.1	ns	ns
Western Australia Northern	14.7	15.4	ns	33.8	15.4	ns
Western Australia Eastern	5.5	34.7	ns	5.5	34.7	ns
Western Australia Central	27.6	26.3	17.4	29.8	26.3	17.4
Southern region	10.1	11.2	3.3	16.5	18.2	10.9
South Australia Midnorth– Lower Yorke, Eyre	8.1	0.7	0.0	17.3	9.6	0.0
South Australia and Victoria Mallee	3.6	5.9	0.0	5.0	10.3	0.0
South Australia and Victoria Bordertown–Wimmera	10.1	6.8	0.0	21.6	7.4	26.8
Victorian and Tasmanian High Rainfall	6.7	25.1	0.0	7.7	29.0	0.0
New South Wales and Victoria Slopes	13.0	36.3	16.3	21.5	46.1	37.5
New South Wales Central	20.7	28.1	0.0	24.5	45.4	0.0
Northern zone	6.3	8.7	2.5	11.2	17.4	2.5
New South Wales North West and Queensland South West	6.8	1.9	0.0	14.1	26.9	0.0
Queensland Central	18.1	0.0	ns	18.1	0.0	ns
New South Wales North East and Queensland South East	5.8	10.5	3.7	10.1	15.4	3.7

^a Ranked by rate of return. ^b Operator's family only – excludes nonfamily owned corporate farms. ^c For 2001-02 only. **ns** Not supplied – insufficient sample to provide reliable estimates.

Australian GRAINS INDUSTRY 2003

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