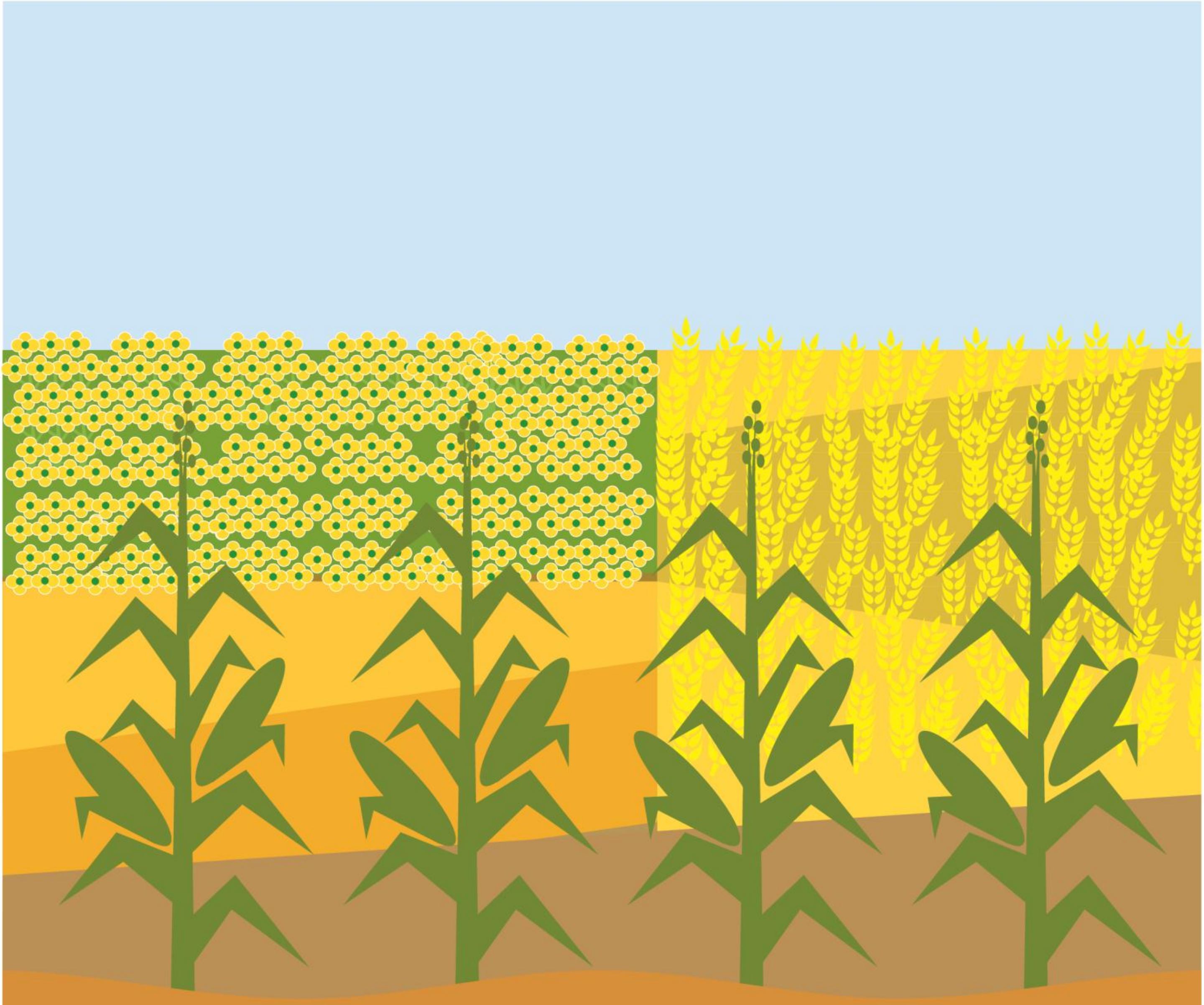
Grains Industry Profile

December 2014



Department of
Economic Development,
Jobs, Transport & Resources

Victoria's Grain Industry

December 2014 Update

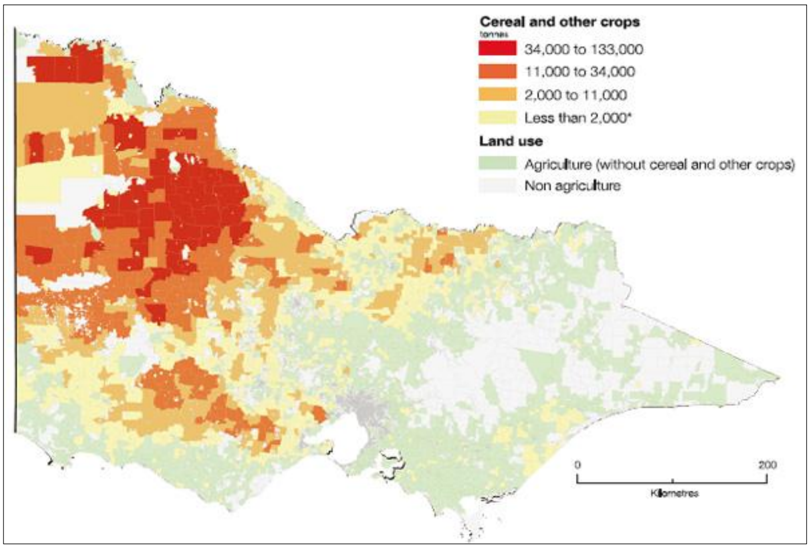
Key points

- This Grain Industry Profile provides an overview of the location, structure, production and performance of Victoria's grain industry.
- In 2012-13, Victoria produced 7 million tonnes of grain from 3.6 million hectares. This comprised of 3.42 million tonnes of wheat, 1.95 million tonnes of barley, 866,000 tonnes of canola and 384,000 tonnes of pulses (lentils, chickpeas, faba beans, field peas, broad beans and lupins).
- In 2012-13, the gross value of Victoria's grain production was $2.31 billion.
- In 2013-14, Victoria's grain exports were valued at $1.96 billion, 10 per cent lower than in 2012-13. Victoria accounted for 16% of the national grain exports. Wheat exports were valued at $1 billion, representing 53% of Victoria's grain exports.
- In 2013-14, China was the most valuable market for Victorian grain exports, valued at $289 million, followed by Indonesia at $142 million
- Victoria's grain growing areas are mainly located in western and northern Victoria, predominantly in the Mallee and Wimmera regions.
- The Commonwealth Government has introduced the Mandatory Port Access Code of Conduct for Grain Export Terminals in 2014, replacing the *Wheat Export Marketing Act 2008*.

Location of Victoria's grain farms

Victoria's grain farms are predominantly located in western and northern Victoria, with the majority in the Mallee and Wimmera regions (Figure 1). Grain growing in Victoria is continuing to expand into the high rainfall zones of southern Victoria and to a lesser extent Gippsland, on land previously used exclusively for pasture production.

Figure 1 – Major grain producing areas in Victoria[i]



Structure of Victoria's grain industry

Grain is grown on approximately 5,500 farms in Victoria. Around 3,000 are grain 'specialists' and 2,500 growers produce grain as part of a mixed farming enterprise. Victoria's grain farms are primarily family run enterprises characterised by a large number of small farms and a small number of large farms. Victoria is the third largest state in terms of number of grain establishments (22 per cent) and area planted (15 per cent)[ii]. In 2010-11, 7,956 people were employed on grain producing farms in Victoria. Of these, 4,448 were on mixed grain-livestock farms and 3,508 were on grain specialist farms[iii].

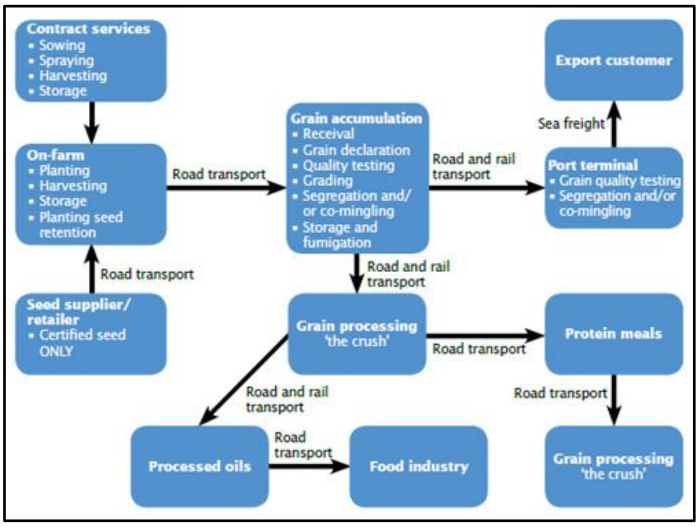
Figure 2 illustrates the supply chain of grain, using canola as an example. Growers store their grain either on or off-farm silos or bunkers for subsequent transport by train or truck for the export or domestic markets. Grain is delivered to off-farm storage sites by truck in either the farmer's own truck or by a haulage company. Once in a storage site, grain marketers contract to buy the grain from the grower. Improved grain transport efficiency is resulting in fewer, but larger, off-farm storage sites[iv].

A substantial percentage of off-farm silos are owned and operated by GrainCorp Ltd, a large bulk grain handler with integrated 'end to end' grain handling and processing infrastructure in Australia and overseas.

These off-farm silos are supplemented by significant on-farm storage, which currently totals around 3 million tonnes[v]. The growth in on-farm storage has increased growers' ability to capitalise on post-harvest price rises.

Victoria has three grain export terminals in Melbourne (operated by Emerald Grain), Geelong and Portland (both owned and operated by GrainCorp Ltd). Victoria's main grain exporters are GrainCorp Ltd, Emerald Grain, Cargill Australia and Glencore. The number of grain exporters has increased since deregulation of the wheat export market.

Figure 2 – Grain supply chain in Victoria



Victoria's grain production

In 2012-13, Victoria was Australia's fourth largest grain producing state, accounting for approximately 11 per cent of Australia's production[vi]. Victoria's grain production has fluctuated over recent years primarily due to weather events. It peaked at 7.7 million tonnes in 2010-11 and recorded a low of 1.8 million tonnes in 2006-07.

Grain industry consists of three types of broadacre crops, cereals, oilseeds and pulses. Cereal (mainly wheat and barley) production represents 82 per cent of Victoria's grain production, with wheat accounting for around 60 per cent of the total cereal crop. Since 1980, production of oilseeds and pulses has grown rapidly from 1 per cent to almost 20 per cent of total grain production.

Area, production and estimated average yield of the major grain crops over the past years are shown in Table 1. In 2012-13, grain crops were grown on 3.6 million hectares. All crop yields were low in 2006-07 because of the poor seasonal conditions, but the yields were maintained afterwards at reasonable levels with a small dip in 2008-09 and a peak in 2010-11. Area under canola increased while other crop areas remained relatively stable.

In 2012-13, the total value of grain crops produced in Victoria was $2.31 billion, the bulk of which from cereals (see Figure 3). Canola constitutes 99 per cent of the value of all oilseeds. Figure 4 indicates the breakdown of the value from cereals and pulses into the main crops. In 2012-13, the gross value of Victoria's production from the major grain crops was $1,039 million from wheat, $533 million from barley and $455 million from canola.

Table 1 – Victoria's grain production by crop[vii]

		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Wheat	Area '000 ha	1,347	1,514	1,534	1,801	1,793	1,669	1,577
	Production '000 t	879	1,995	1,756	2,995	4,412	3,943	3,423
	Yield t/ha	0.7	1.3	1.1	1.7	2.5	2.4	2.2
Barley	Area '000 ha	913	1,107	1,136	976	802	831	844
	Production '000 t	605	1,789	1,461	1,865	1,945	2,005	1,952
	Yield t/ha	0.7	1.6	1.3	1.9	2.4	2.4	2.3
Canola	Area '000 ha	179	196	285	231	323	477	628
	Production '000 t	42	220	233	331	476	689	866
	Yield t/ha	0.2	1.1	0.8	1.4	1.5	1.4	1.4
Lentils	Area '000 ha	122	67	71	52	110	N/A	N/A
	Production '000 t	5	62	25	50	156	N/A	N/A
	Yield t/ha	0.0	0.9	0.3	1.0	1.4	N/A	N/A

N/A Not available.

Figure 3 – Value of all grain produced[viii]

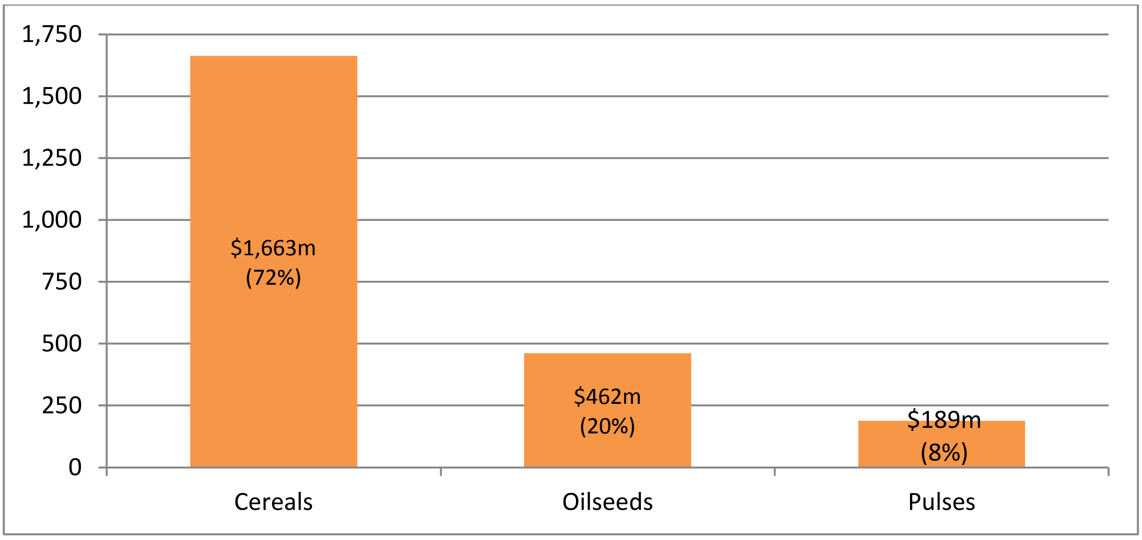
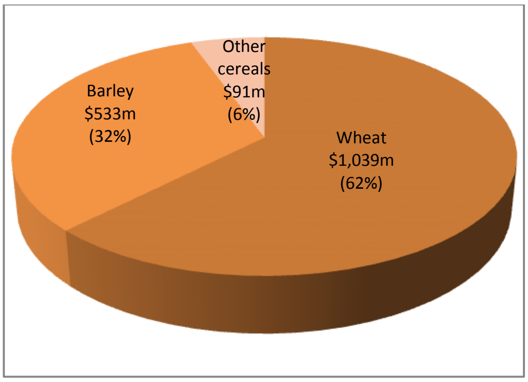
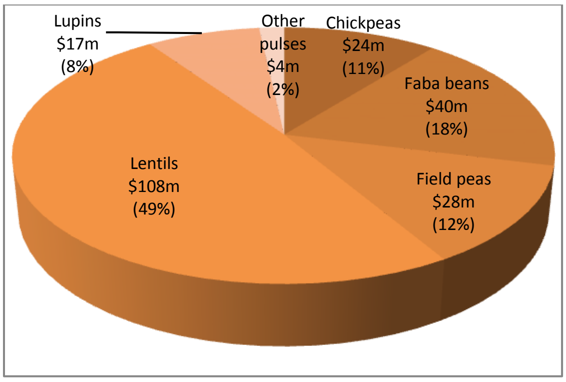


Figure 4 – Value of cereals (left) and pulses (right) produced[ix]





Outlook for the 2014-15 season

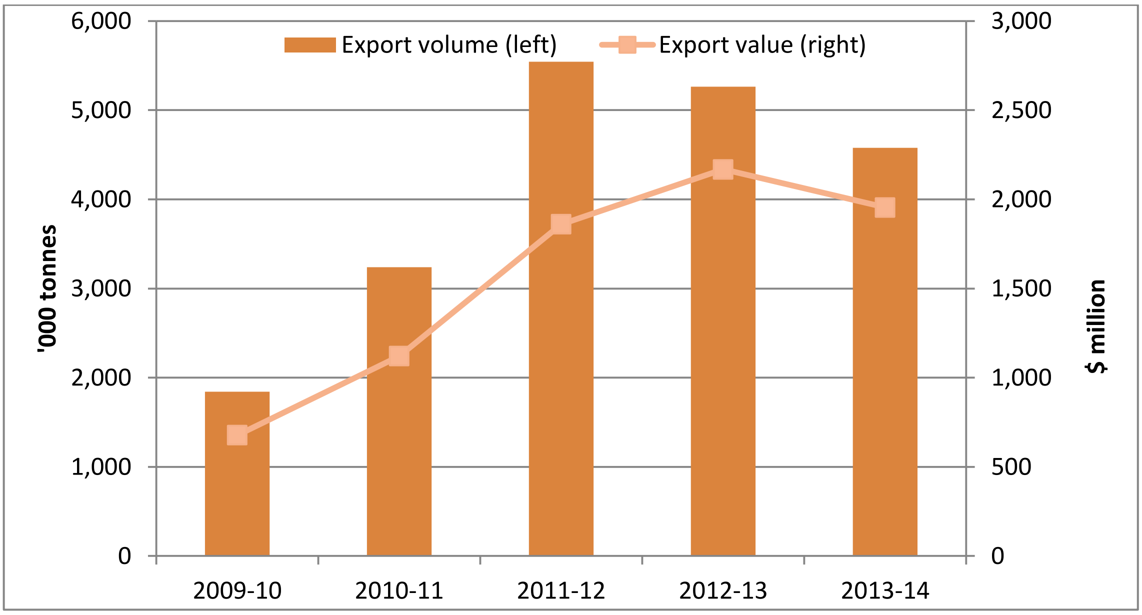
The 2014-15 seasonal conditions in Victoria were generally favourable for planting and early crop development but dry during winter. Frost in August adversely affected crops in the Mallee region. Sufficient rainfall at the right time during spring is critical. The Bureau of Meteorology's latest three-month outlook (September to November 2014) however suggests slightly drier and warmer conditions across the state. Winter grain crop production in Victoria is forecast at around 6.3 million tonnes in 2014-15, a decline of 11 per cent from 2013-14 levels [x].

Domestic grain prices closely track international prices and are subject to significant fluctuations, as with all internationally traded commodities. The 2014-15 grain prices are likely to be around 10 per cent lower than 2013-14 prices on average, due to increases in world supply and reductions in world trade caused by the growing domestic production in importing countries[xi].

Victoria's exports and domestic consumption of grain

Victoria's domestic grain consumption is around 3 million tonnes on average, underpinned by relatively stable demand from the dairy, intensive livestock, malting, oilseed crushing and milling sectors[xii]. The remainder of Victoria's grain is exported. Grain exports increased from 1.8 million tonnes in 2009-10 to 4.6 million tonnes in 2013-14 (Figure 5).

Figure 5 – Victorian grain exports over past five years[xiii]

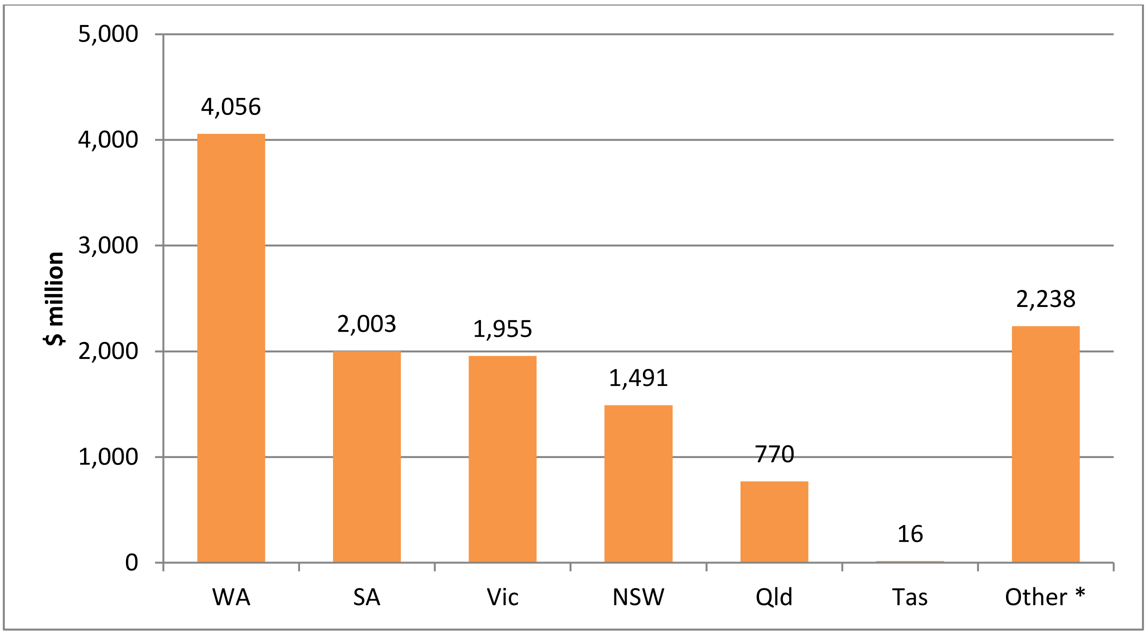


In 2013-14, Victoria's grain exports were valued at $1.96 billion reduced by 10 per cent compared to 2012-13. Victoria accounted for approximately 16 per cent of Australia's grain exports in 2013-14 (see Figure 6). Only WA (approx. 32 per cent) and SA (approx. 16 per cent) exceed Victoria's grain exports.

In 2013-14, Victoria's major grain export markets were China ($289 million), Indonesia ($142 million), Yemen ($135 million), Vietnam ($118 million) and Japan ($90 million).

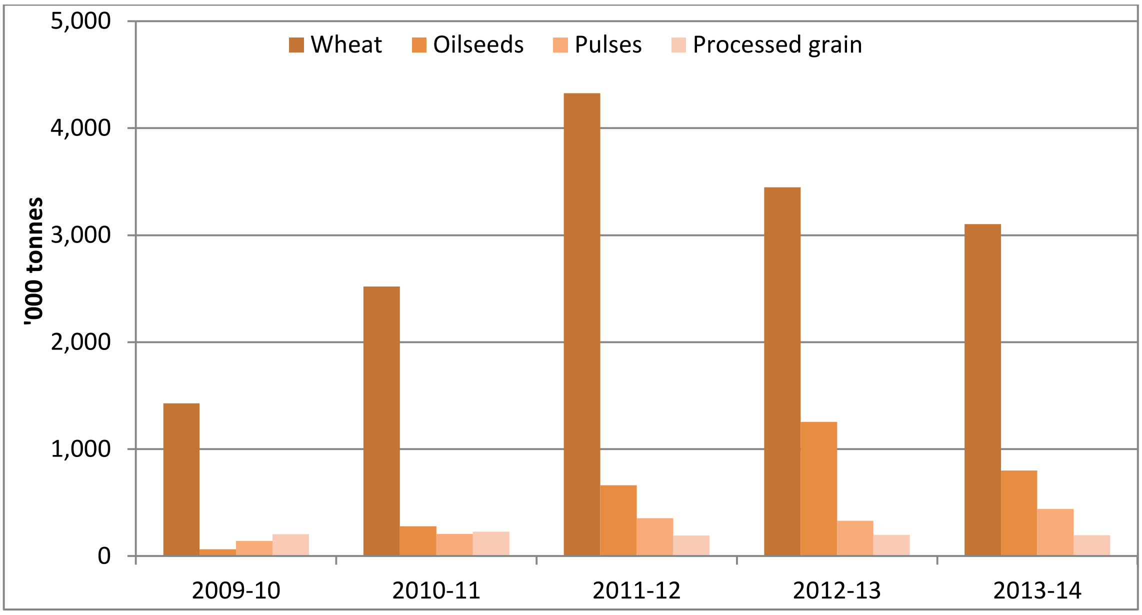
The value of Victoria's wheat exports has increased by three-fold over the past five years. Volume of wheat as well as all grain exported peaked in 2011-12 (Figures 5 and 7).

Figure 6 – Value of Australian grain exports by state of origin 2013-14



* “Other” refers to export data from the ACT, NT, re-exports, and exports for which no state details are released for confidentiality.

Figure 7 – Victorian exports of wheat and other grain types[xiv]



Total factor productivity

Total factor productivity in Australia’s broadacre cropping industry differs across regions. In recognition of differences in growing conditions across Australia, the Grains Research and Development Corporation (GRDC) distinguishes three broad agro-ecological grain growing regions, Southern, Northern and Western.

The Southern region encompasses south-eastern Australia, including central and southern New South Wales, Victoria, Tasmania and south-eastern South Australia. Between 1977-78 and 2011-12, cropping specialists in the southern region of Australia achieved an annual productivity growth rate of 1.7 per cent[xv]. Total factor productivity for Australian cropping industry has fluctuated considerably over the last three decades. Cropping shows much greater productivity volatility than other broadacre sub-sectors because it is so closely tied to seasonal conditions.

In Victoria, cropping productivity growth was 4.3 per cent per annum from 1977-78 up to 1993-94. Productivity growth for the industry dropped to 1.5 per cent per annum for the period from 1993-94 to 2011-12[xvi]. In recent years, productivity growth across all agricultural industries has slowed, in part due to the prevalence of dry seasons.

Farm financial performance

Table 2 shows average farm costs and receipts for grain producing farms in the GRDC's Southern region. These farms comprise both specialist grain producing farms and mixed grain/livestock farms. In 2013-14, grain receipts are estimated to have increased by around 8 per cent from 2012-13 as a result of increased production[xvii]. Total cash costs increased by around 3 per cent compared with 2012-13. As a result, the farm cash income and farm business profit increased by 16 and 38 per cent, respectively. Rate of return to total capital is expected to increase from 3.0 to 4.4 per cent in 2013-14.

Table 2 – Financial performance of grain producing farms in the southern region of Australia[xviii]

Average per farm	2011-12	2012-13p	2013-14y
Total cash receipts ($)	573,010	600,100	643,000
Total cash costs ($)	401,970	406,400	418,000
Farm cash income ($)	171,040	193,700	225,000
Farm business profit ($)	34,490	69,100	95,000
Equity ratio (%)	83	84	N/A
Rate of return to total capital (%)	2.2	3.0	4.4

p Preliminary estimate; **y** Provisional estimate; **N/A** Not available.

The larger the area planted to grain, the better the profitability measures in general. On average, specialist grain producing farms have maintained higher farm cash income than the average among all grain producing farms in the Southern region in each of the past 20 years to 2013-14. Over the five years to 2012-13, the top performing 25 per cent of grain producing farms in the region recorded average rates of return to total capital of 8.1 per cent. These top farms also received on average, more than double the farm cash incomes and farm business profits as the averages among all specialist grain growers.

Opportunities and challenges

Grain is a major food exporting industry and the demand from Asia is growing. However, global commodity markets are volatile. Specific challenges in international grain trading are the protectionism in terms of tariff barriers and subsidies in competitor grain export countries and the growth of domestic grain production in major importing countries. There is a need to increase total factor productivity in order to offset continuing decline in terms of trade. This can be achieved through the adoption of efficient production methods that are currently available and are being developed. Cropping is expanding into the high rainfall zone of Victoria replacing pasture and livestock, providing opportunities for growth in the industry. However, grain cropping is highly dependent on climate, therefore, production risk should be managed. Road, rail and storage logistics become increasingly important with the improvement in crop yields and production volumes, especially in areas where grain growing is expanding into. Exports of Victorian grain in containers has also grown significantly, see separate container grains industry profile.

Government policy/regulation influences

On 19 September 2014, the Commonwealth Government introduced the Mandatory Port Access Code of Conduct for Grain Export Terminals. The Code of Conduct replaces the *Wheat Export Marketing* Act 2008 and regulates the use of bulk wheat port terminals by service providers and exporters. The Code of Conduct seeks to make transparent the terms and conditions for access to bulk wheat port terminal services for all exporters.

In 2013, the Commonwealth Government rejected American grain company, Archer Daniels Midland's (ADM) $3.4 million bid to take over GrainCorp, a decision that was welcomed by farmer representative groups, despite a loss in infrastructure funding promised by ADM.

[i] Australian Bureau of Statistics (ABS), Based on AGS2011 Mesh Block Boundaries

[ii] ABS, Agricultural Commodities, Australia, 7121.0, 2012-13

[iii] ABS, 2010-11 census of population and housing

[iv] Grains Logistics Taskforce Report 2011, Department of Transport, Victoria

[v] ABS, Agricultural Commodities, Australia, 7121.0, 2009-10

[vi] ABS, Agricultural Commodities, Australia, 7121.0, 2012-13

[vii] ABS, Agricultural Commodities, Australia, 7121.0, 2012-13

[viii] ABS, Value of Agricultural Commodities Produced, Australia, 7503.0, 2012–13

[ix] ABS, Value of Agricultural Commodities Produced, Australia, 7503.0, 2012–13

[x] Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), Australian Crop Report, September 2014

[xi] ABARES, Agricultural Commodities, September Quarter, 2014

[xii] Based on: ABS, Agricultural Commodities, Australia, 7121.0, 2012-13; Department of Environment and Primary Industries (DEPI), Victorian Food and Fibre Export Performance Report 2013-14

[xiii] Based on: DEPI, Victorian Food and Fibre Export Performance Report 2013-14

[xiv] Based on: DEPI, Victorian Food and Fibre Export Performance Report 2013-14

[xv] ABARES, Australian farm survey results 2011-12 to 2013-14, March 2014

[xvi] ABARES, 2014, unpublished data

[xvii] ABARES, Financial performance of grain producing farms, 2011/12 to 2013/14, Research report 14.12, September 2014

[xviii] ABARES, Financial performance of grain producing farms, 2011/12 to 2013/14, Research report 14.12, September 2014