



Australian Government

Wheat Exports Australia

**Submission to the
Rural and Regional Affairs and Transport Legislation Committee**

Inquiry into the Wheat Export Marketing Amendment Bill 2012

27 April 2012

Background

Wheat Exports Australia (WEA) was established on 1 July 2008 under the *Wheat Export Marketing Act 2008 (WEMA)*. WEA's role is to accredit fit and proper exporters of bulk wheat, monitor those exporters and ensure continuous disclosure of the shipping stem by the port terminal service. WEA has no role in storage and handling, transport, marketing, publishing statistics (other than in its Annual Report and its annual Report for Growers), setting receival standards or classifying wheat varieties.

Export Statistics

From 1 October 2011 (start of the current marketing year) to 31 March 2012, more than 10.0 million tonnes of bulk wheat was exported via 18 accredited exporters to 31 countries. This is a 28% increase compared with the same period in 2010/11, when 7.8 million tonnes of bulk wheat was shipped.

Asia continues to be the dominant destination for Australian bulk wheat, with seven of the top ten countries in the Asian region. Indonesia remains the primary destination for Australian bulk wheat, purchasing 16.2% of bulk wheat exports over the six month period.

Figure 1: Percentage of Australian bulk wheat exports by market destination for the period 1 October 2011 to 31 March 2012

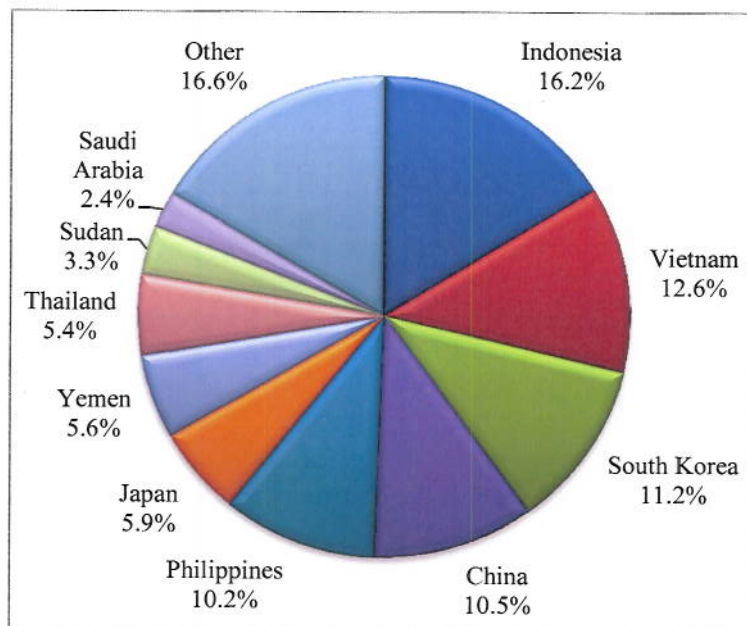
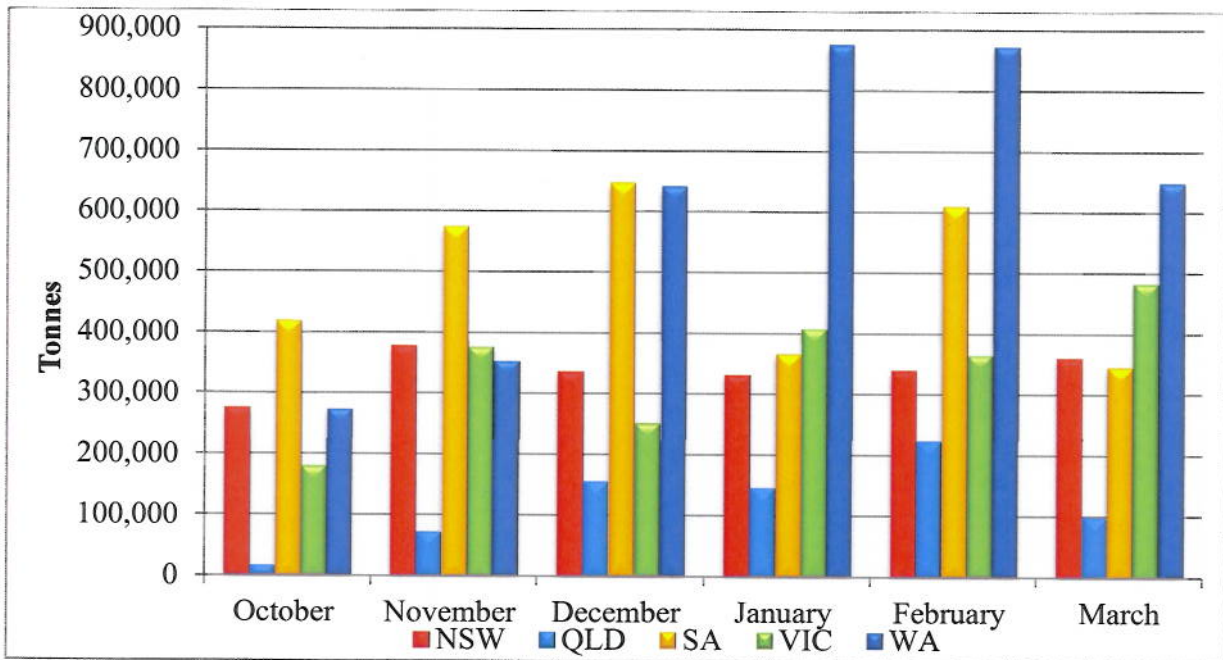


Figure 2 graphs the total (bulk and non-bulk) wheat exports by State for the period 1 October 2011 to 31 March 2012. This graph is based on ABS and WEA data and shows substantial exports from Western Australia in January and February and strong exports for the marketing year to date from Victoria and Queensland.

Figure 2: Total wheat tonnage (bulk and non-bulk) exported by State for the period 1 October 2011 to 31 March 2012



Note: The above graph is based on ABS and WEA data and is indicative only

Figure 3 shows State and National cumulative total (bulk and non-bulk) wheat exports for the period 1 October 2011 to 31 March 2012. This graph is based on ABS data and shows a strong start to the marketing year for Western Australia and South Australia.

Figure 3: State and National cumulative wheat export totals for the period 1 October 2011 to 31 March 2012

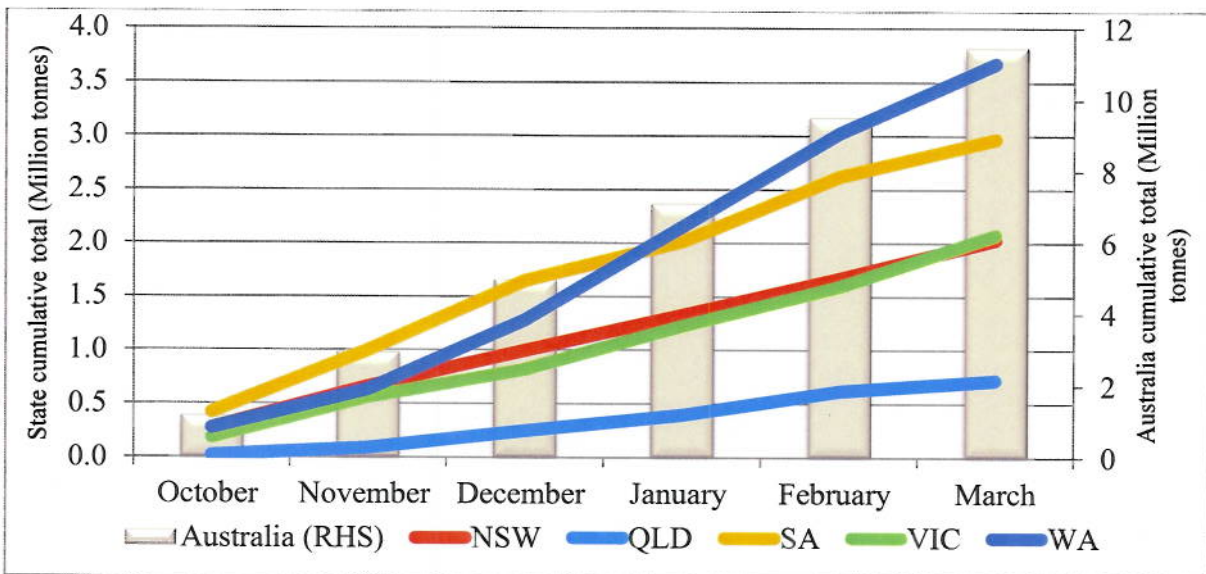


Figure 4 presents the percentage of Australian bulk wheat exports for each State for the period 1 October 2011 to 31 March 2012 compared to the 2010/11 marketing year. Western Australia has increased its share from 30% in 2010/11 to 37% in 2011/12, while South Australia had the biggest decline, from 34% in 2010/11 to 25% in 2011/12.

Figure 4: Percentage of total Australian bulk wheat exports by State of origin for the full marketing year 2010/11 (left) compared to the period 1 October 2011 to 31 March 2012 (right)

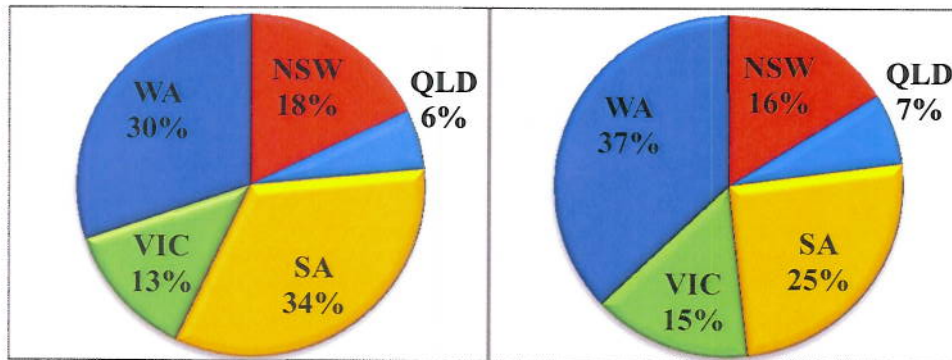


Figure 5: State APW wheat prices, CBOT futures prices and AUD/USD exchange rate for the period 1 October 2011 to 31 March 2012

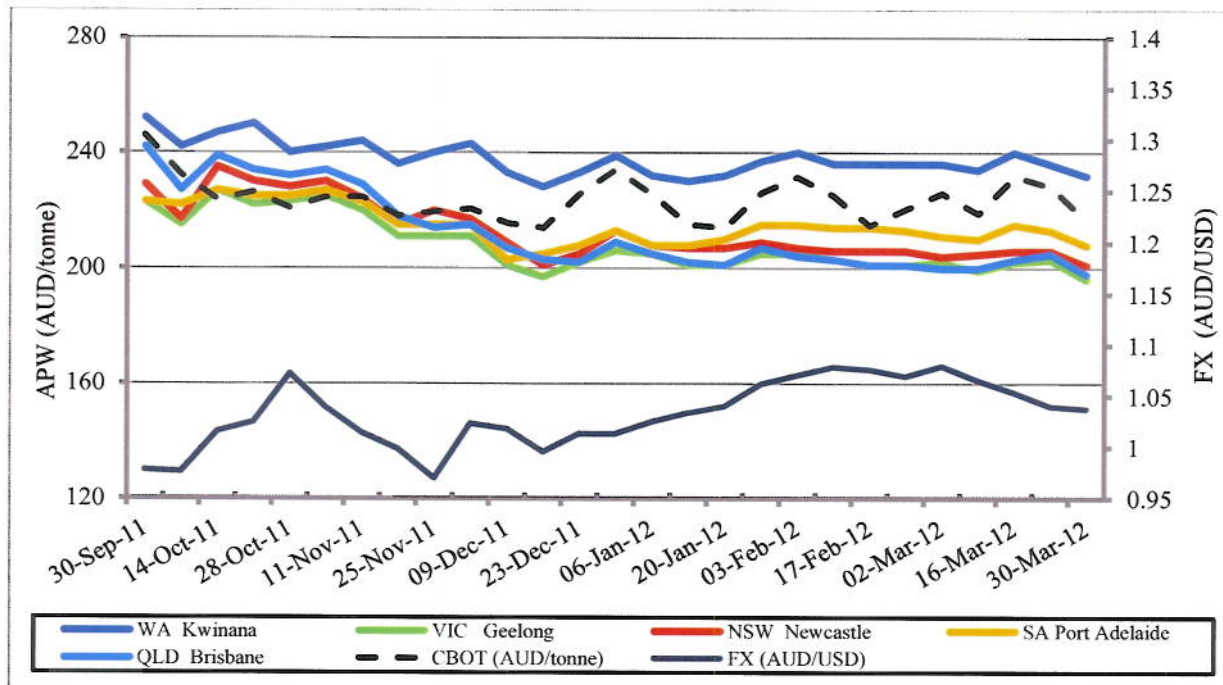


Figure 5 provides comparative State wheat prices and the Chicago Board of Trade futures price as well as the AUD/USD exchange rate since 1 October 2011. The wheat prices display a downward trend. Factors influencing this include:

- higher global and local wheat stocks. This has led to an increased stocks to use ratio and placed downward pressure on wheat prices, with lower price volatility.
- improving weather and growing conditions in the northern hemisphere, resulting in an improved crop forecast and production for the season.

The high Australian dollar has further lowered Australian prices.

The key areas of outstanding industry issues observed by WEA

a. Unequal access to wheat stocks information

Upcountry wheat stocks information is not currently published in sufficient detail nor in a consistent and timely manner to be useful to industry. Industry requires detailed and timely information to facilitate accurate pricing and competitive tendering for international contracts.

This topic has been discussed in detail in the recent report on 'Operational Issues in Export Grain Networks' by the Senate Rural and Regional Affairs and Transport References Committee (**Grain Networks Report**).

b. Port Access

Port access is an essential service on which exporters are completely dependent to facilitate trade. Any restriction or inability for exporters to secure shipping slots on a fair and equitable basis will discourage them from participating in the export market, thereby reducing competition in the industry.

WEA has observed and been informed by industry of the following:

- The Co-operative Bulk Handling Limited (CBH) shipping slot auction process apparently being manipulated in the 2011/12 season. This resulted in very high, uneconomical premiums being paid for access to low demand shipping slots.
- The ACCC requiring Viterro Limited to move to an auction system for allocating shipping slots after its marketing arm and one other exporter dominated the stem during the high value January to April 2011 shipping period.
- On 11 April 2012 the ACCC issued an objection notice to Viterro's proposed auction system. This is because of potential problems with the design of the system, which have become apparent in recent WA auctions.

As a result of the WEMA, all three Bulk Handling Companies (**BHCs**) have an ACCC accepted access undertaking in place until 30 September 2014. It should be noted however that after 30 September 2012, these voluntary undertakings will not be linked to WEMA accreditation, thus removing a direct enforcement mechanism. Part IIIA of the Australian Competition and Consumer Act 2010 (**CCA**) (formerly the Trade Practices Act 1974) does not provide for any ACCC enforcement power in respect of access undertakings. Enforcement action can instead be taken in the Federal Court.

Attachment A provides a breakdown of bulk wheat exports by port and the top three exporters for each port. This information clearly indicates that for the 2010/11 marketing year, for 13 of the 16 port terminals the accredited exporter which is associated with the relevant port terminal service provider has the largest exports from that port.

Further for the 2011/12 marketing year to 23 April 2012, for 10 of the port terminals the accredited exporter which is associated with the relevant port terminal service provider has the largest exports from that port.

WEA also questions whether the voluntary Industry Code of Conduct to be introduced (subject to acceptance by the Minister for Agriculture, Fisheries and Forestry) from 1 October 2014 would be sufficient to retain even the limited protection against BHC monopolistic behaviour afforded by the access undertakings in place until then. In this regard WEA notes the alternative option of enforceable obligations arising from the relevant port terminal services being designated 'declared services' under Part IIIA of the CCA.

c. Management of the supply chain and port capacity information

Based on substantial feedback from exporters, also echoed in submissions to other recent enquiries, WEA is of the view that in order for industry to capture all the benefits of a deregulated market, the supply chain needs to be transparent and equitable to all players in the market. This includes the following:

- uniform and transparent booking of shipping slots; and
- the publication of comprehensive port capacity tables.

Inherent information asymmetry exists as the BHCs control information. In the case of Port Terminal Service providers with associated marketing arms, the knowledge of port capacity and activity as well as up-country wheat stocks information allows BHCs to plan their shipping task. This information is not readily available to the general trade.

Since the inception of its enabling legislation, WEA has encouraged BHCs to publish uniform and transparent port capacity and shipping slot information tables.

In protecting their regional monopolies and associated competitive advantage, BHCs were initially reluctant to provide this uniform information. WEA eventually mandated the nature and format of required shipping stem information as part of each BHC's (or related entity's) export accreditation.

To preserve this level of market information, mechanisms should remain in place to ensure that BHCs publish on each business day:

- comprehensive port capacity tables; and
- uniform and transparent shipping stem information.

The nature and form of this information should be specified in any ACCC accepted access undertakings and/or any new legislation relating to bulk wheat port access. The information should be based on industry information requirements, not suggestions put forward by the BHCs alone.

d. Integrity of Australian grain exports

Varietal integrity is currently a key issue for the Australian wheat industry. It will be noted from **Attachment B**, a report on WEA's recent trip to South East Asia, Australia's biggest market for export wheat, that millers consistently indicated that the preservation of Australian wheat classification was essential and that the integrity of varietal classification was particularly important. Further, wheat exporting countries with official wheat export standards are preferred

by millers over those without such standards. Australia has no official wheat export standards. WEA understands that both the USA and Canada check for varietal integrity on export, thus ensuring consistent performance of the resulting wheat flour.

While there have been some issues with grain quality in South East Asia, these have mostly come from the container trade. Some tests currently used, such as falling number, are not as repeatable as would be desirable. However there is no better test available at the moment.

The Canadian Grain Commission website (<http://www.grainscanada.gc.ca/cgc-ccg/cgc-ccg-eng.htm>) states:

“The Canadian Grain Commission is a federal government agency. It is the regulator of Canada’s grain handling industry. It is the official certifier of Canadian grain. The Canadian Grain Commission is Canada’s scientific research organization on grain quality.

The Canadian Grain Commission certifies the quality, safety and weight of Canadian grain that is delivered to domestic and export markets. To do this, it:

- Regulates all aspects of grain handling in Canada through grain quality and quantity assurance programs
- Carries out scientific research to understand all aspects of grain quality and grain safety and to support the grain grading system

The Canadian Grain Commission protects the rights of Canadian grain producers when they deliver their grain to licensed grain handling companies and grain dealers.

Through its activities, the Canadian Grain Commission supports a competitive, efficient grain sector and upholds Canada’s international reputation for consistent and reliable grain quality.”

Attachment C is an article on the Canadian Grain Commission, from Grainews, an agricultural newspaper based in Winnipeg, Canada. It provides an overview of the Commissions functions and its 100th anniversary.

<http://agcanada.com/issue/grainews-10/>

The US Federal Grain Inspection Service website (<http://www.gipsa.usda.gov/fgismain.html>) states:

“U.S. grain, rice, and other commodities flow from farm to elevator to destinations around the world. GIPSA's Federal Grain Inspection Service (FGIS) helps move our Nation's harvest into the marketplace by providing farmers, handlers, processors, exporters, and international buyers with sampling, inspection, process verification, weighing and stowage examination services that accurately and consistently describe the quality and quantity of the commodities being bought and sold.

We facilitate the marketing of U.S. grain and related agricultural products by establishing standards for quality assessments, regulating handling practices, and managing a network of Federal, State, and private laboratories that provide impartial, user fee funded official inspection and weighing services.”

Attachment D is from the US Federal Grain Inspection Service (FGIS) and summarises this organisation's quality assessment, inspection and weighing services, which are aimed at facilitating the marketing of US grain.

<http://www.gipsa.usda.gov/fgismain.html>

The United States Department of Agriculture (**USDA**) also publishes a weekly export sales report. Reporting under the Export Sales Reporting Program is mandatory.

The report is described as follows on the USDA website:

“Weekly export sales reports serve as a timely early warning system on the possible impact of agricultural obligations on U.S. supplies and prices. The data can be used, for example, to assess the level of export demand, to determine where markets exist, and to assess the relative position of different commodities in those markets.

The majority of the principal agricultural exports are monitored on both a daily and weekly basis by the U.S. Department of Agriculture (USDA) through its export sales reporting system. This monitoring system provides a constant stream of up-to-date information on the quantity of U.S. agricultural commodities that are sold abroad.”

This and other information is available from:

<http://www.fas.usda.gov/export-sales/esrd1.asp>

The U.S Wheat Associates is a partially government funded organisation; its website indicates that it assists buyers, influences trade policy and speaks for producers.

One of the services provided by the U.S. Wheat Associates to buyers is a crop quality report.

Found at <http://www.uswheat.org/reports/cropQuality>

U.S. Wheat Associates describe this report as:

“The Wheat You Want

U.S. Wheat Associates (USW) publishes a comprehensive annual Crop Quality Report. During harvest, updates on crop quality by class are posted in Harvest Reports.

The annual Crop Quality Report includes data on all six U.S. wheat classes compiled from crop quality surveys conducted during and after harvest. The report provides information that can be very helpful to buyers as they specify their needs to get the best value in their purchase contracts. USW shares the data with its customers in person or at a series of annual Crop Quality Seminars around the world from September through December.”

e. Upcountry road and rail limitations

The Australasian Railway Association in its recent submission (**Attachment E**) to the Senate Standing Committee on Rural Affairs and Transport Enquiry into Operational Issues in Export Grain Networks estimates that Australia's "antiquated" grain handling facilities and "substandard" freight lines are costing farmers \$97 a tonne in transport, port storage and handling for shipment of wheat to export markets. This represents approximately 50 per cent of the final market price of grain, compared to the situation in Canada, where these costs are about half as much even though distances are longer.

This topic has been discussed in detail in the Grain Networks Report.

f. Any other related matters.

Since July 2008 WEA has been monitoring compliance of accredited exporters with the new wheat export marketing regulatory requirements. This process has identified to exporters and WEA a number of beneficial outcomes for both the wheat export industry in general and individual exporters in particular.

Bulk exporters have indicated to WEA that:

- the accreditation process has led to enhanced governance and risk management processes for their businesses
- accreditation from a government agency has proved a useful marketing tool for exporters in their engagement with growers and international customers
- the accreditation process has heightened awareness of the importance of End Point Royalties in supporting market oriented breeding of wheat varieties

From WEA's perspective, the implementation of the Scheme is assisting the achievement of the objectives of the Act through the accreditation of multiple exporters now competing for a share of Australian bulk wheat exports.

WEA considers that the transition from the previous highly regulated bulk wheat export arrangement to a more competitive environment has occurred relatively smoothly.

WEA has been rigorous in implementing the provisions of the Scheme to ensure compliance with the eligibility criteria and that accredited exporters meet the 'fit and proper' test. WEA continues to monitor accredited exporters within the terms of the Scheme.

Pleasingly, there have been no cases of financial failure of/ by the companies involved or any known incidents where accredited exporters have failed to meet their contractual obligations to growers or buyers.

WEA recognises that the transition to a more deregulated marketing environment has involved substantial structural change, which is impacting on the whole supply chain. This adjustment is expected to continue as the Australian export wheat industry develops its competitiveness, improves its efficiency and advances the needs of wheat growers and the bulk wheat export marketing industry generally, as envisaged by the Act.

If you have any questions regarding this submission, please contact Peter Woods on (02) 6202 3430.

Yours sincerely

Peter Woods
Chief Executive Officer

Attachment A

State	Port	2010/11 Marketing Year		1 October 2011 to 23 April 2012		
		Exporter	Export share	Exporter	Export share	
NSW	Carrington	1,269,000 Tonnes		825,000 Tonnes		
		GrainCorp Operations Limited	39%	GrainCorp Operations Limited	35%	
		AWB (Australia) Limited	21%	Cargill Australia Limited	22%	
		Cargill Australia Limited	15%	Gardner Smith Pty Limited	17%	
	Port Kembla	1,657,000 Tonnes		1,092,000 Tonnes		
		GrainCorp Operations Limited	31%	GrainCorp Operations Limited	63%	
		Cargill Australia Limited	27%	Cargill Australia Limited	23%	
		Glencore Grain Pty Limited	20%	Glencore Grain Pty Limited	19%	
	QLD	Mackay	92,000 Tonnes		78,000 Tonnes	
			GrainCorp Operations Limited	62%	Cargill Australia Limited	48%
AWB (Australia) Limited			38%	Viterra Ltd	25%	
				Queensland Cotton Corporation Pty Ltd	19%	
Gladstone		121,000 Tonnes		151,000 Tonnes		
		PentAG Nidera Pty Ltd	33%	Viterra Ltd	46%	
		Viterra Ltd	24%	PentAG Nidera Pty Ltd	21%	
		GrainCorp Operations Limited	21%	Alfred C. Toepfer International (Australia) Pty Ltd	15%	
Fisherman Islands		712,000 Tonnes		409,000 Tonnes		
		AWB (Australia) Limited	29%	GrainCorp Operations Limited	25%	
	GrainCorp Operations Limited	26%	Queensland Cotton Corporation Pty Ltd	22%		
	CBH Grain Pty Ltd	14%	Viterra Ltd	19%		

Calculated from shipping stem data

All figures are rounded

Note: Marketing year is 1 October to 30 September.

Attachment A

State	Port	2010/11 Marketing Year		1 October 2011 to 23 April 2012	
		Exporter	Export share	Exporter	Export share
VIC	Portland	348,000 Tonnes		275,000 Tonnes	
		GrainCorp Operations Limited	32% Cargill Australia Limited		35%
		Queensland Cotton Corporation Pty Ltd	32% GrainCorp Operations Limited		29%
		AWB (Australia) Limited	18% Glencore Grain Pty Limited		16%
	Melbourne	557,000 Tonnes		485,000 Tonnes	
		Bunge Agribusiness Australia Pty Ltd	41% Cargill Australia Limited		32%
		Emerald Group Australia Pty Ltd	27% Bunge Agribusiness Australia Pty Ltd		31%
		CBH Grain Pty Ltd	8% Emerald Group Australia Pty Ltd		24%
	Geelong	1,107,000 Tonnes		752,000 Tonnes	
		GrainCorp Operations Limited	39% GrainCorp Operations Limited		30%
		AWB (Australia) Limited	19% Cargill Australia Limited		29%
		Cargill Australia Limited	12% Glencore Grain Pty Limited		12%

Calculated from shipping stem data

All figures are rounded

Note: Marketing year is 1 October to 30 September.

Attachment A

State	Port	2010/11 Marketing Year		1 October 2011 to 23 April 2012		
		Exporter	Export share	Exporter	Export share	
SA	Thevenard	444,000 tonnes		242,000 Tonnes		
		Emerald Group Australia Pty Ltd	51%	Alfred C. Toepfer International (Australia) Pty Ltd	33%	
		AWB Harvest Finance Limited	30%	Emerald Group Australia Pty Ltd	24%	
				12%	Viterra Ltd	21%
	Wallaroo	458,000 Tonnes		308,000 Tonnes		
		Viterra Ltd	43%	Viterra Ltd	36%	
		Alfred C. Toepfer International (Australia) Pty Ltd	15%	Cargill Australia Limited	20%	
		AWB Harvest Finance Limited	14%	Glencore Grain Pty Limited	18%	
	Port Giles	560,000 Tonnes		353,000 Tonnes		
		Viterra Ltd		Bunge Agribusiness Australia Pty Ltd	27%	
		Alfred C. Toepfer International (Australia) Pty Ltd		Cargill Australia Limited	21%	
		Louis Dreyfus Commodities Australia Pty Ltd		Viterra Ltd	17%	
Port Adelaide (inner and outer Harbor)	1,862,000 Tonnes		1,326,000 Tonnes			
	Viterra Ltd		Glencore Grain Pty Limited	27%		
	AWB Harvest Finance Limited		Viterra Ltd	26%		
	ALFRED C. TOEPFER INTERNATIONAL (AUSTRALIA) PTY LTD		Alfred C. Toepfer International (Australia) Pty Ltd	19%		
Port Lincoln	2,167,000 Tonnes		1,243,000 Tonnes			
	Viterra Ltd		Viterra Ltd	34%		
	AWB Harvest Finance Limited		Cargill Australia Limited	22%		
	Emerald Group Australia Pty Ltd		Glencore Grain Pty Limited	17%		

Calculated from shipping stem data
All figures are rounded
Note: Marketing year is 1 October to 30 September.

Attachment A

State	Port	2010/11 Marketing Year		1 October 2011 to 23 April 2012	
		Exporter	Export share	Exporter	Export share
WA	Albany	867,000 Tonnes		462,000 Tonnes	
		CBH Grain Pty Ltd	49%	CBH Grain Pty Ltd	42%
		Glencore Grain Pty Limited	17%	Cargill Australia Limited	34%
		Emerald Group Australia Pty Ltd	10%	Glencore Grain Pty Limited	17%
	Esperance	835,000 Tonnes		441,000 Tonnes	
		CBH Grain Pty Ltd	55%	CBH Grain Pty Ltd	42%
		Emerald Group Australia Pty Ltd	28%	Glencore Grain Pty Limited	32%
		Glencore Grain Pty Limited	9%	AWB Harvest Finance Pty Ltd	11%
	Geraldton	1,292,000 Tonnes		1,336,000 Tonnes	
		CBH Grain Pty Ltd	45%	CBH Grain Pty Ltd	35%
		Emerald Group Australia Pty Ltd	18%	Glencore Grain Pty Limited	14%
		Glencore Grain Pty Limited	13%	Emerald Group Australia Pty Ltd	12%
	Kwinana	1,995,000 Tonnes		1,640,000 Tonnes	
		CBH Grain Pty Ltd	27%	CBH Grain Pty Ltd	37%
		AWB (Australia) Limited	19%	Glencore Grain Pty Limited	20%
	Glencore Grain Pty Limited	19%	Emerald Group Australia Pty Ltd	12%	

Calculated from shipping stem data

All figures are rounded

Note: Marketing year is 1 October to 30 September.

Wheat Exports Australia

South East Asian Trip Report

September 2011

Kim Halbert and Peter Woods

ISSUES THAT AFFECT AUSTRALIA'S WHEAT INDUSTRY

Summary of Observations

- Asian millers want Australian wheat, they know it and they trust it.
- Every country has different wheat flour requirements to suit the local products. Indonesia wants higher protein wheat for their breads, while Vietnam uses lower protein wheat for its bread and noodles. Different buyers also target different priced wheat according to the ability of the market to price discriminate.
- The features of Australian wheat that Vietnam mills like are the whiteness, low ash content, and the smell. For the Vietnamese the smell of their bread rolls is very important.
- Prior to deregulation AWB provided information to buyers on the quality profile of the Australian crop. The market now is described as "hectic" with millers having to actively manage both quality and logistics.
- Australian port loading and logistical issues are causing problems for millers.
- Wheat exporting countries with official Wheat Export Standards are preferred over countries without such standards. Millers were concerned that Australia does not have a Government body checking the integrity of Australian wheat.
 - The US has a model that is respected by international buyers. The Federal Grain Inspection Service checks the quality of all grain as it is being loaded on ships and there are severe penalties for substandard grain or grain that has variety misquoted. This is strictly a user pays system.
 - Canada DNA tests varieties to make sure there is no misquotation of variety. This is an extremely expensive system and probably a case of going too far.
- Asian millers indicated the need for:
 - an Australian crop quality report
 - more technical support for millers and end users of Australian wheat
 - complete transparency of stocks and classification information
 - blending only along varietal grades not across varietal grades.
- The need for interaction (at least annually) between Australian industry and end users to ensure a continuous flow of information between customers and sellers.
- Users need to be more specific in their wheat specifications.

Quotes

“Everything must be done to protect the integrity of the name APW. Once the brand is damaged it will be gone forever.”

“The USA is the greatest free marketer of all yet they still require quality testing of all wheat leaving the US.”

“Need to maintain inspection standards, vessel surveys and AQIS inspections, as this is an integral part of quality profile in Australia.”

“U.S wheat would need to be at a \$20 discount to APW before I would consider purchasing the U.S wheat.”

Prior to deregulation there was very little uncertainty. Now it’s hectic – because of shipping bottlenecks in Western Australia, too many variables.”

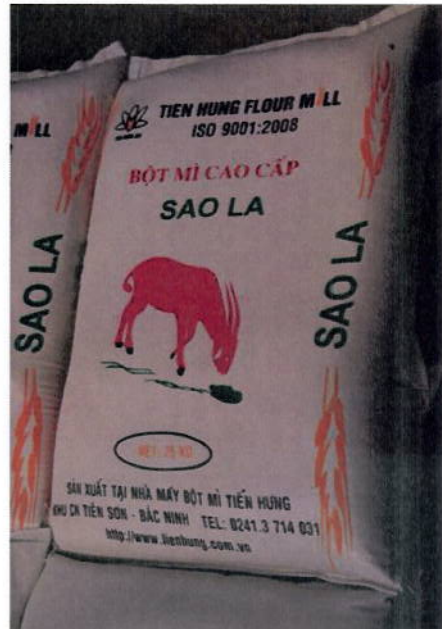


Figure 1: Types of Noodles made by Uni President, Vietnamese bread rolls and flour all made from Australian wheat.

Discussion

The millers visited and met by WEA were using between 60 per cent and 100 per cent of Australian wheat in their mills. Many of the mills were undergoing expansion of some sort, either by increasing milling capacity two or three fold or constructing new facilities. They liked Australian wheat for its whiteness, high yield, dryness and low ash content.

In Indonesia, Australian wheat is good for noodles but needs to be mixed with American or Canadian wheat for bread. APW and APH are the main classifications used.

In Vietnam, Australian wheat is used for noodles and bread. Bread in Vietnam is more a French style baguette bread.

Logistics

Millers indicated logistical issues in Australia are a major problem. Sailing times of seven to 15 days from Australia to Indonesia and southern Vietnam should allow timely delivery of wheat. As many buyers are running just-in-time systems, shipping delays can cause severe problems with mills running low on stocks. This has been exacerbated with delays caused by issues related to shipping stems.

Millers indicated that there had been delays in excess of 30 days to get vessels loaded in Australia. This has caused many problems for the mills which at times were in danger of running out of wheat.

One issue raised is to do with laycan times, particularly in Western Australia. They are extremely restrictive running from the 1st to the 15th of the month or from the 16th to the 30th. Millers cannot understand why laycans cannot fall within any 14 day period.

Millers are appreciative of the fact that AQIS are strict on the survey of ships. They view this as one of the methods used to maintain the cleanliness and quality of Australian wheat, although it is viewed as a problem that AQIS does not inspect ships at anchor as this would help to reduce loading and queuing problems. The same applies to onboard fumigation, which would save considerable time and money.

There have been situations where ships have arrived within laycan and have either had to wait at anchor or have failed survey, meaning the ship is eventually loaded outside of laycan, incurring significant extra charges.

Mills have a finite amount of storage and with the specification changes (detailed below) they now find that they have more classifications of wheat to store and are constantly modifying the blending ratios of the wheat to achieve correct flour quality and performance.

Millers indicated consistently that the issues were:

- slot availability and its tonnage size
- short lead time
- increased charges, port and BHC
- non transparent charges

These markets are generally price sensitive, timely delivery is increasingly important and millers are now considering purchasing from those exporters that hold shipping slots.

Specification

Traditional countries (Australia, Argentina, Canada, USA) with Official Wheat Export Standards are preferred over non-traditional countries (India, Pakistan, Ukraine etc) without official Wheat Export Standards.

Specification of Australian wheat varies depending on the exporter. Millers indicated that exporters could only offer wheat they held in stock as there was no access to stocks and quality information (Australian Crop Quality Report). Millers were concerned that Australia did not have a government body like US Federal Grain Inspection Service checking the quality of exported wheat.

Millers would prefer a full quality profile so they know what is on the shipment. At present, it is not until the wheat arrives at the destination that they know what the actual specifications (protein levels falling number etc) are. There is presently a tendency to provide grain to a minimum classification standard.

As blending normally occurs at port while loading, there is no prior opportunity to test the wheat sample and determine flour and dough performance.

As there is no crop quality report for the whole of Australia nor the current ability to determine grain quality and performance prior to delivery, millers now sample every hatch and container upon receipt and run a full set of quality tests (test mill and bake) to determine end use properties. This is a significant cost to the miller.

Figure 2 Grain testing laboratories at Cerestar and Bogassari



The tests enable the miller to determine flour performance and thus blending needed to achieve constant product performance. Millers believe the reason that they need to test to these levels has been caused by blending. Millers understand that blending occurs to meet a price point and to have grain meet but not exceed the contract specification. The issue is when classifications with different varietal acceptance are blended. The reason classifications only allow certain varieties to be received into the classification is that it provides consistency in flour and dough performance. When other varieties from different classifications are blended with say APW or APH, the flour and dough performance is affected. Millers are able to be more specific in the contract specifications but there is no cost effective way of testing for varieties.

Attachment B

Wheat blending is a common practice among the supply chain to achieve the official or contract specifications. There are concerns that some of the blending of Australian wheat will adversely affect flour and dough performance. This is seen to reduce the value of the Australian wheat variety brand.

APW is very highly regarded in Asia as top quality wheat. The problem is that non APW varieties are being blended with APW which is downgrading flour and dough performance. Even though the quality specifications are strictly according to the grade standard of the contract, the performance of the wheat is not up to scratch.

Millers that were purchasing grain based on the Australian classification (APW, ASW and APH) acknowledged that they probably need to tighten their specifications in the purchase contracts. This included stating that for APW, only APW approved varieties should be used in any blending.

Millers consistently expressed that preservation of the integrity of all Australian classifications of wheat was essential. Integrity of varietal classification is critical particularly with regard to APH and APW, the two flagship Australian classifications in SE Asia.

Some buyers think that there should be a penalty system for incorrect blending.

Variability of quality in containers both within shipments and between shipments is an issue. We were shown test result sheets where the certified falling numbers for the entire shipment were 329 however the real average when unloaded was less than 270, with some containers being as low as 211 seconds.

While variability in bulk is less of an issue, it was still mentioned by several buyers and millers.

Some mills indicated there was an increase in the amount of foreign material in wheat shipments for example stones from bunkers built at up country silos. While visiting a mill in Jakarta we viewed this issue first hand, as is clearly seen in figure 3.



Attachment B

Millers believe quality problems with Australian wheat result largely from seasonal issues and not a general deterioration in quality as indicated in figure 4.



Information

WEA was surprised by the issues users are having with specifications and timing of delivery of Australian wheat and the general absence of support provided by Australian exporters, particularly when compared with the marketing and customer support provided by the U.S. Wheat Associates, the U.S. Grains Council and the Canadian Grain Commission.

The US Wheat Associates has a representative based in Bangkok who provides technical advice and helps with trouble shooting milling issues. This service is also provided for issues with Australian wheat. It is obvious that provision of this resource to Asian millers is aimed at assisting the US to increase its market share.

There is a significant need for more information to be easily accessible to buyers of Australian wheat. Millers all indicated a lack of both stocks and technical information from Australia.

Currently the millers would like to have crop quality reports that provide technical information on wheat flour characteristics by port zone. This information would include:

- what varieties are available at what ports
- quantity of wheat
- quality specifications
- functionality traits of available wheat.

There needs to be interaction of technical experts with customers using flour made from Australian wheat. Millers and bakers are crying out for more direct contact with Australian industry. When news of WEA's visit got around, Austrade were flooded with callers wishing to meet with us.

Attachment B

The need for training is so great that some mills are now starting to undertake this themselves. Figure 5 shows a group of Vietnamese bakers inspecting bread rolls they made during a training session at Vima flour. Vima flour uses 80% Australian wheat. These rolls were made with ASW.



There is a need for classifications to have geographic diversity to enable supply in periods of drought. APH is a relevant example and it is currently only approved for Northern NSW and Southern Queensland. In the 2010/11 marketing year there was little supply because of flooding and continued rain during harvest.

CANADIAN GRAIN COMMISSION — 1912-2012

MARKING A CENTURY OF SERVICE

On April 1, 2012, the Canadian Grain Commission celebrates its 100th anniversary. The employees of the Canadian Grain Commission join with me in thanking the hardworking staff at *Grainews* for producing this publication to commemorate a century of service.

To survive a century is quite an achievement. But our longevity is not what is noteworthy, as you will see as you read about our past. No, our true achievement is our role in the growth of the Canadian grain industry. For 100 years, we have collaborated with Canadian grain producers and other members of an industry that has shaped Canada's society, economy and landscape.

The Canada Grain Act, which guides us in delivering our mandate, was passed by the Canadian government to meet the needs of grain producers. Through the Act, we work to establish and maintain standards of quality for Canada's grain, regulate grain handling in Canada, and to ensure that Canada's grain is a dependable commodity for domestic and export markets.

Grain producers still have rights that were initially granted to them under the Act in 1912. Producers can dispute the grade and dockage received at a licensed primary elevator and ask our inspectors to provide a binding decision. Producers are also guaranteed the right to ship their grain using producer cars. In 2011, producers loaded over 12,700 cars with

grain, demonstrating how valuable a right this is to them. Finally, producers are still offered payment protection for deliveries to licensed primary elevators.

While we celebrate our past, we also look to the future. We are a vibrant organization, ready to take on new challenges. We draw strength from a proud past while we evolve to meet changing demands.

Along with the dedicated employees of the Canadian Grain Commission, I look forward to another century of collaboration with our stakeholders to assure to the continued success of Canada's grain industry.

Elwin Hermanson
Chief Commissioner



CGC guarantees Canadian grain quality worldwide

Quality assurance makes Canadian grain superior

BY RON FRIESEN

The owner of Singapore's largest bakery chain sits in a high-rise office tower gazing out over the world's busiest ocean port. Any day now, a ship carrying wheat from Canada is scheduled to arrive and unload its cargo for milling.

The baker is already planning his production and quality-control program for months ahead, based on grain from halfway around the world he has never laid eyes on, much less inspected.

But he isn't worried. He knows he will almost certainly get exactly the right kind of wheat with the precise specifications he requested. He also knows that, if there's a problem with the bread when it emerges from the oven, Canadian officials will step in to provide technical assistance. Canada is one of the only countries in the world able to provide wheat sight unseen to an overseas buyer with the assurance that it's what he paid for and will perform the way he wants. That fact is due in large part to the Canadian Grain Commission, a federal agency responsible for regulating the country's grain handling system.

How the CGC provides customers with what the industry calls "the best wheat in the world" is a story spanning 100 years this month.

PURPOSE REMAINS

The world was a very different place in 1912 when the Board of Grain Commissioners, the CGC's forerunner, was formed with a mandate to administer the new Canada Grain Act and enforce regulations for grain inspection.

But then, as now, the purpose was the same. The Board of Commissioners would see that farmers would be guaranteed fair treatment for the grain they delivered. They would receive the correct grade with the correct bushel weight. If there was any disagreement, the CGC could investigate and, if warranted, uphold the farmer's complaint.

"The Canadian Grain Commission is an unbiased third party that ensures that all players who have a stake in the grain are treated fairly. That balance

would not exist if there were no Grain Commission," says Elwin Hermanson, chief commissioner of the Canadian Grain Commission.

"You have a disciplined system for putting grain into the market and you don't have to deal as often with bad outcomes."

Implicitly, that means end-use customers are treated fairly, too. A regulated, co-ordinated system involving farmers, the CGC, grain handlers and marketers ensures it. Farmers produce the grain, grain handlers market the grain and establish the price; the CGC certifies grades and quality and provides technical expertise and support to overseas customers.

"A customer in the U.K., for example, can have confidence that when he buys No. 1 Canadian Western Red Spring wheat with 13 per cent protein, when it is shipped, that the Canadian Grain Commission will certify that everything loaded on this boat constitutes No. 1 CWRS 13.0," explains Hermanson.

Satisfying customers at the end of the supply chain may not have been uppermost in the minds of the Board of Grain Commissioners when they first set about their work a century ago. Protecting farmers from unfair treatment by railways, grain dealers and milling companies by enforcing regulations was the main emphasis (see related story).

But as Canada's grain exports expanded, especially after World War II, customers began to demand that, if they were buying wheat from so far away, it had better be what they ordered.

Of course, European millers buying wheat from Western Canada could (and did) come over to observe the harvest. But they still needed to know for certain that what was in those vessels leaving Montreal was what they had purchased.

QUALITY GUARANTEE

This was born the "certificate final" — a document signed by the CGC's chief grain inspector certifying that the vessel was loaded with grain equal to the customer's order. It is, in effect, a guarantee by the Government of Canada that what you buy is what you get.

Guaranteeing a specific qual-

ity for each load is a remarkable achievement, considering the grain is grown over a vast area under varying conditions that can range from flooding in one part of the Prairies to drought in another and delivered to over 300 country elevators owned by competing grain companies.

That's because the system works co-operatively to produce the right product. Any grain exported through a terminal elevator in Canada must be inspected by the CGC as it goes into the terminal and as it's loaded on to the vessel.

To ensure the grain going into the cargo hold is what the customer requested, samples are taken continuously during loading. A quality check occurs for every 2,000 tonnes, so a load to fill a 20,000-tonne vessel would be tested 10 times as the grain goes in.

What if, for example, nine samples are of the right stuff but one is not? The certificate final will say so.

"We cannot order the vessel unloaded," says Daryl Beswitherick, the CGC's program manager for quality assurance standards. "But what we will tell the grain company is that 2,000 tonnes that went on did not meet specifications. If they remove it, and continue to load grain that meets the quality that was sold, we will certify the whole lot as making spec. If they choose not to remove it, we will certify that 2,000 tonnes did not meet specification.

"The vessel would be able to sail. But what the customer would know when they receive their certificate final is that there are two different qualities within the hold of that vessel.

"If you're loading wheat or barley or peas, the procedure is the same."

How often is a vessel loaded with the wrong grain? "It's fairly rare that instances like this occur," says Beswitherick.

If it does happen, it's up to the shipper and the customer to come to an agreement prior to the vessel leaving the port. Sending it back isn't practical because the cost for offloading the vessel would be prohibitive. The cost of having an unsold cargo afloat is not practical either. The customer is not left high and dry. The checks and balances of the Canadian grain system extend all the way from the Prairie grain fields to the end user's bakery.



A prize-winning Board of Grain Commissioners display in Italy in 1932.

COMPLAINTS INVESTIGATED

If, for example, a customer feels the protein strength of the wheat in his shipment is not as expected, he lodges what's called a cargo complaint. The CGC retains a sample from each shipment for six months. It will take part of the sample in question and test it in the CGC's Grain Research Laboratory in Winnipeg to determine if the grading was correct. The commission can also mill and bake that sample in its lab to see if there really is a protein problem, as the customer alleges.

If the sample performs as expected in the lab, the problem may be at the customer's end. Perhaps there's something wrong with his flour mill or the baking process.

But if a cargo complaint turns out to be justified, the system works to try and correct it.

It may be that the grade and content of the shipment are right but, for some reason, the protein isn't performing as it should. Perhaps the reason is an agronomic one, because soil and weather conditions under which wheat is grown can affect protein functionality.

In that case, the CGC may go over and help the customer work with the grain to produce the desired quality in the final product.

As a result, if an Indonesian buyer blends No. 2 CWRS 13.0 with Australian soft white wheat and Turkish flour to produce steamed buns or noodles, he can rely on the wheat from Canada even though he's using other products in the mix.

"So that buyer in Indonesia can say, 'When I buy this, I know I'm going to be able to use it in such a manner in my plant to upgrade the other ingredients I'm buying,'" Hermanson says.

The above process — inspecting,

grading, certifying and providing customer support — holds true for any of the 21 official grains listed by the Canada Grain Act, whether cereals, oilseeds, pulses, mixed grains or other crops.

FARMER INPUT

It's important to note that farmers, who grow those crops in the first place, are directly involved in helping to shape Canada's grain grading system.

Every spring and fall, the Western Standards Committee, a 26-member industry committee, which includes 12 grain producers as well as processors and exporters, meets to discuss grading issues and make recommendations to the Commission about grain grades and standards.

According to a recent CGC statement, the committee works to "make sure changes to the grading system reflect the interests and concerns of all stakeholders in Canada's grain sector, including producers."

The committee "constantly review(s) Canada's grading system so that it continues to be relevant to the grain sector and to buyers of Canada's grain," says the statement.

The committee employs subcommittees to collect information about grading issues for specific crops. There are four subcommittees for wheat, barley and other cereals, oilseeds and pulses.

Chuck Fossay, who farms at Starbuck, Manitoba, sits on the wheat subcommittee. He says the group looks at all grading factors to distinguish one class of wheat from another. Those can include bushel weight, protein levels, allowable levels for fusarium head blight, or dockage.

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CANADIAN GRAIN COMMISSION — 1912-2012

Fair treatment for Western farmers began 100 years ago

Federal agency brought peace to the Prairie grain war

BY RON FRIESEN

It was more than a century ago but bitter conflict between farmers and the early western Canadian grain industry still resonates in the childhood memories of old-timers like Harvey English.

"It was highway robbery. That's what it was in those days," says English, 94. "They were just stealing everything off the farmer that they could possibly steal."

English, whose uncle homesteaded the family farm near Rivers, Manitoba, remembers his father once talking about a producer who delivered a load of wheat to the local elevator and received 88 cents a bushel. A week later, English's dad took wheat to the same elevator and learned the price was now 44 cents a bushel.

Like other grain growers, he felt at the mercy of grain companies and their take-it-or-leave-it attitude.

"Nobody seemed to have any backbone to get out and do something for the farmers at that particular time," says English, who farmed until 90 and was still out on the combine last fall. "It was terrible."

Western Canadian farmers, who either applaud or chafe at government regulations in today's grain

sector, can little appreciate what their ancestors experienced in the early days of settlement. The grain trade, if not exactly Wild West, wasn't far removed. Buying, grading and inspecting grain were largely unregulated, farmers felt exploited and emotions often ran at a boiling point.

The mood among Western grain farmers at the close of the 19th Century was one of "outrage, indignation and frustration," according to Jim Blanchard, a University of Manitoba librarian and local historian.

"There was no doubt in their minds that the CPR, the grain dealers and the milling companies were formed into a monopoly designed to cheat them," wrote Blanchard in his 1987 book *The History of the Canadian Grain Commission*.

"There can be no doubt that there were abuses in Western Canada — this was inevitable in a situation where the railroad and the grain trade held all the cards and the farmer held none."

The tumultuous days of the early 20th century gave rise to the farm movement and the formation of producer organizations with political clout. But what really made the difference was the eventual response by the federal govern-

ment to demands by Western farmers for fair treatment.

"MAGNA CARTA"

That response culminated exactly 100 years ago with the passage on April 1, 1912 of the Canada Grain Act — sometimes called the Magna Carta of the Western grain grower — and the creation of what is now the Canadian Grain Commission, a federal agency, to administer it.

It was a watershed in the history of agriculture in Western Canada. In the words of former CGC chief commissioner G.G. Leith: "Then, as now, the Commission's purpose was to protect farmers' interests and, through the Canada Grain Act, to provide a legislative framework for a fast-growing grain industry."

Of course, grievances between Prairie farmers and the grain industry are as old as agriculture in the West. But it's hard to overstate the anger producers felt in those days at what they saw as unequal treatment by grain companies and the railways. It was, as Blanchard puts it, "a state of undeclared war between the two factions involved in the grain industry."

Complaints were many but they generally centred around four main ones: prices, dockage,

weights and the ability of producers to ship their own rail cars.

There were actually three prices: the "street price" (offered by the elevator on delivery), the "track price" (received after loading a rail car and then selling it), and the "spot price" (the one at the terminal where grain was sold on the world market).

What angered farmers most, according to former University of Manitoba history professor Gerald Friesen in his book *The Canadian Prairies: A History*, was the spread in prices between street and track prices, probably three to four cents a bushel. Farmers were usually forced to accept street prices because, as Friesen says, "they could not fill a boxcar within a particular variety and grade of grain within the limited time permitted by the rail companies."

EXCESSIVE DOCKAGE

There were other legitimate grievances, as a Royal Commission appointed in 1899 to investigate the industry discovered.

The Commission found that "a vendor of grain is at present subjected to an unfair and excessive dockage for his grain at the time of sale." It also determined that "doubts exist as to the fairness of

the weights allowed or used by the owners of elevators." Finally, it said elevator companies enjoyed an unfair monopoly "by refusing to permit the erection of flat warehouses where standard elevators are situated" and thus being able "to keep the price of grain below its true market value to their own benefit."

The only solution was legislation to regulate the industry, "there being no rules laid down for the regulations of the grain trade other than those made by the railway companies and the elevator owners," the commission's report concluded.

The result was a federal statute in 1900 titled the Manitoba Grain Act.

The act was well intentioned and pushed all the right buttons. It created the post of Warehouse Commissioner to administer the statute. It established rules for handling grain. It set standards for weights and measures. It required grain-handling facilities to be licensed. And it enshrined in law a grain producer's right to load and ship his own rail car.

The problem, as farmers learned, was in getting the cars they were legally entitled to. It soon became

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LEVEL PLAYING FIELD

By setting such standards, the CGC creates a level playing field for farmers when marketing their grain to different buyers, Fossay says.

Say, for example, the minimum

weight for No. 1 CWRS is 60 pounds per bushel. A buyer looking for a heavier weight might demand 65 pounds per bushel. In that case, the producer could say, "sorry, the CGC says the minimum weight for that grade is 60 pounds and if you want more, you'll have to pay a pre-

mium." And the CGC will back up the farmer.

"So you're not dealing with four different buyers who have four different standards for the grain you're showing them," says Fossay. "You may be dealing with four different buyers but there's one standard set by a third party."

Grading and inspection are only one part of the puzzle for ensuring grain quality. Another important piece is the variety-registration system, in which the CGC plays a central role.

The Canadian Food Inspection Agency administers the variety registration system, and the CGC is responsible for evaluating new varieties from a quality perspective coming forward out of co-op trials for registration. Once a year, in Saskatoon, Banff or Winnipeg, the Prairie Grain Development Committee (PGDC) meets to receive data from the Grain Commission on those varieties and assess whether they are good enough to be registered, based on quality factors. Other committee members will study other factors such as disease and insect resistance and agronomics. (The committee also meets in Eastern Canada, with the CGC playing the same role.)

With spring wheat, for example, the quality of a variety has to meet a certain end-use specification. Therefore, as producers make their seeding choices, they know that each variety has certain attributes from a quality, disease and insect resistance, and agronomic perspective. For their part, buyers can expect that a new variety within that class will perform in a certain manner.

Beswetherick says the system has very rigid requirements. If a variety is to be registered, it has to be equal to or better than a certain standard set by the PGDC.



Grain Commission reinspection staff provide independent, third-party analysis of grain grades and quality.

"So a customer who buys registered varieties in a CWRS class knows that, if there are new varieties in there, they're supposed to be at least equal to what he's used to getting, or better than he used to get."

Although the registration process is the same for all crops, quality parameters can vary. Beswetherick notes that criteria for canola, for example, are not as stringent as for some of the wheat classes.

CHANGE CONTINUES

Right now, all this is happening against the backdrop of one of the most significant developments in the recent history of the Canadian grain industry: the impending removal of the Canadian Wheat Board's single sales desk for wheat and barley.

How a post-monopoly environment will affect the Canadian Grain Commission is uncertain.

Some believe business will continue more or less as usual, only without a CWB monopoly. Others

have serious doubts because the CWB and the Commission are closely linked.

In the meantime, the CGC itself is under the microscope. Suggested changes to the Canada Grain Act would eliminate mandatory requirements for inward inspection and weighing at licensed terminals and transfer elevators. Grain handlers themselves would report inward grain grades and weights.

Some worry the changes, if implemented, would limit the CGC's role as an independent arbiter and compromise assurance of fair payment to farmers — the very reason the Commission was formed in the first place.

"Regardless of changes proposed, we remain committed to the Canada Grain Act," explains Hermanson. "That means that, through grain quality and quantity assurance as well as grain safety assurance, we will continue to ensure a dependable commodity both domestically and internationally, for the benefit of producers and the grain industry as a whole."

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CANADIAN GRAIN COMMISSION — 1912-2012

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evident the railways' practice was to allocate cars to grain companies before granting them to individual farmers.

LANDMARK CASE

It wasn't until 1902 that a landmark court case upheld the right of farmers to access producer cars. Brought by the newly formed Territorial Grain Growers, it accused the station agent at Sintaluta, Saskatchewan of not complying with the law by giving cars out of turn to elevators. The court ruled in favour of the farmers.

The railways may have had to supply producer cars but they didn't have to like it. Glen Franklin, who farms at Deloraine, Manitoba, says his grandfather once shipped a producer car around 1911 which mysteriously disappeared from the system. Tracked down after more than a year, the car was finally unloaded, Franklin's grandfather got paid, but he never did receive an explanation.

Did the car vanish on purpose? "It was certainly a possibility, I suppose," Franklin says.

Part of the problem with continuing inequities lay with the Manitoba Grain Act itself. For one thing, it applied only to "the Inspection District of Manitoba," since Saskatchewan and Alberta were not yet part of Confederation. By the time those jurisdictions achieved full provincial status in 1905, they were producing more wheat than all of Manitoba, though technically not under the statute.

But a greater problem was that the railways and grain companies, the Sintaluta case notwithstanding, paid little attention to the Act, says James Zastre, a Canadian Grain Commission community relations officer.

"There were these rights that were given to producers under the Manitoba Grain Act but most felt that the grain companies and railways ignored them. Many producers felt they had no voice, they had no organization at the time and most of them probably didn't even know they were being denied any rights," Zastre says.

It was a critical period in the history of Western Canada. Although the Liberal government of Wilfred Laurier had a strong interest in settling the West, large chunks of it were still virgin territory. Many immigrants, lured by the promise of cheap land, came from politically oppressed countries and harboured a deep suspicion of elevator companies telling them the grade of their grain. How could you encourage people to come to Canada and homestead in a remote corner of Saskatchewan if you couldn't guarantee them fair treatment for the crops they grew?

THE CANADA GRAIN ACT

Worse still, there appeared to be no avenue for complaint. You took a wagonload of grain to an elevator and immediately felt at the agent's mercy. If you didn't like his decision, you could take the grain back home. You didn't know what your rights were because nobody had told you. Communication was sometimes difficult because of cultural differences and a language barrier. The very sociology of the Prairies in those days cried out for a solution.

That solution came in the form of the Canada Grain Act of 1912. It built on its predecessor,



An early scene at Wolseley, Saskatchewan. Farmers in the early days of grain production believed they were at the mercy of elevator agents for grade and price.

the Manitoba Grain Act, only with teeth.

Zastre says the pre-1912 approach to solving problems was piecemeal — single-issue approaches for resolving multi-faceted grievances. Different authorities had different responsibilities. There was no single message to give to producers who felt they were being wronged.

The Canada Grain Act changed that. All matters regarding grain industry regulation were combined under one umbrella.

Now you had a package deal simultaneously looking after a lot of things related to the industry. You also had a federal government telling farmers they had a right to fair treatment under the law. And if you felt you still weren't being treated fairly, an independent tribunal served as an arbiter.

In short, the Canada Grain Act served two purposes, Zastre says. It provided solutions to problems. And it let people know, through their farm organizations or otherwise, that they had rights backed by the law of the land.

"It was an avenue of communication," says Zastre. "I don't say the Commission was out there spreading the word. But there was somebody that people knew they could talk to."

Adds Doug Langrell, CGC corporate development advisor: "The commission, as a federal organization founded by an act of Parliament, gave a kind of sanction to the rights of farmers in a way that UGG or any of the Pools could not."

Indirectly, this helped immigration because it drew on the role of government that appealed to people coming to Canada in the first place, says Zastre. It enabled government to say, here are rights you didn't have back home. Grain companies had less leeway in making decisions because now there was oversight.

PRODUCER CAR PROTECTION

Producer cars were one example. Episodes such as the railway losing Franklin's grandfather's producer car were not uncommon. But the Board of Commissioners, as the CGC was originally called, put a stop to that, says Zastre.

The Commission ensured that cars were properly numbered and recorded by an independent body. If producer cars were not distributed the way they were supposed to be, someone was watching and something would happen.

Another change occurred when the government began building inland grain terminals. Facilities at Moose Jaw, Saskatoon and Calgary were constructed soon after 1912. Suddenly, there was less shipping pressure after the harvest season because more grain could be stored on the Prairies. There was less urgency for farmers to sell their grain immediately for fear prices would be lower if they waited.

How did grain companies and other major players accept all this regulation?

Zastre says the industry struggled against some provisions, especially those in the Manitoba Grain Act. But the 1912 legislation brought a kind of peace to the sector. It was no longer an unregulated market in which anything went. That was a blessing for farmers.

But in a strange sort of way, it was a double-edged sword also benefiting grain companies because it helped ease the cut-throat environment which prevailed before, says Langrell.

"Companies were not always in fair competition for farmers' grain," he says. "While they certainly wanted to get the grain for the best price from farmers so they could pass it on for the best margin or profit, they couldn't risk significantly undercutting the competition."

Having standardized procedures also helped. Sampling was a good example. In the old days, a company could take a pail of grain from the back of a farmer's wagon and that was the sample, like it or not. Now the commission set a procedure for sampling grain. You took

a probe into a boxcar or truck and extracted samples at five points — one in the middle and four from each of the corners, two feet in.

That was an advantage to both the farmer and the company, says Zastre. The farmer knew his grain would be sampled consistently in a certain way. It was also an advantage to companies because it meant there was one less thing to argue about and they could get on with the business of buying and selling grain.

"It helped pour oil on the waters," Zastre says. "There was less disruption. Producers could be sure they were getting a fair deal. If they felt they weren't, they had some avenues for appeal. And the grain companies knew the other guy had to do the same as they were doing."

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CANADIAN GRAIN COMMISSION — 1912-2012

Quality assurance through world-class research stands the test of time

The Canadian Grain Commission's Grain Research Laboratory has been assessing and improving the quality of Canadian crops for more than nine decades

BY VAL OMINSKI

The bright blue paint on the Allis Chalmers roll stands looks conspicuously out of place among the gleaming modern metal in the pilot-scale flour mill on the 16th floor of the CGC Grain Research Lab.

Miller Dave Tumock thinks they are about 80 years old and have also seen duty at the lab's former location in the Grain Exchange Building. They may even have been housed in the very first Grain Research Lab, located in a postal station on Main Street and Magnus Avenue in Winnipeg's North End.

The CGC Grain Research Lab is that kind of place — where new research and technologies are

building upon past efforts in order to provide quality assurance for Canada's evolving grain industry.

THE GRL'S EARLY DAYS

When the Board of Grain Commissioners (now the CGC) was formally established in 1912, a beefed-up inspection and grading system was introduced. The board-wanted a research lab to oversee moisture testing, to test wheat quality through milling and bread baking activities, and to test flax for oil content.

By June 1914, the Grain Research Lab was up and running with a staff of five.

F.J. Birchard, the first director (chief chemist), was a crusty and

determined individual who began by setting acceptable levels for moisture in grain, thus helping producers get more reasonable prices for damp grain.

He also expressed concerns about the grading system, and questioned whether grade prices actually reflected the value of the grain.

This was good news for farmers — but not so for the rest of the industry. Birchard's research was caught up in ongoing disputes between the grain trade and producers, with the result that the federal government shut the GRL down in 1923.

A stubborn Birchard continued to work in the empty lab, until — as a result of lobbying from farmer groups and members of Parliament — the GRL reopened. It coincided closely with the move to the Grain Exchange Building in May of 1927, where the lab joined the CGC's Winnipeg offices.

Once back in business, Birchard undertook a number of programs that would help establish the quality of Canadian wheat and define the GRL:

- extensive protein testing of red spring wheat, beginning in 1927;
- quality testing of samples from all grains and oilseeds moving to market;
- monitoring of moisture tests done by inspectors
- limited quality testing of new varieties;
- participation in grain-drying research with three Prairie universities.

Birchard also began sending the results of the GRL's quality testing program to Canadian and foreign millers, and pushed for enhanced use of these publications in a variety of languages. This marketing tool is still a cornerstone of the CGC quality assurance program today.

Birchard's final contribution was a trip in 1932 to Italy, in order to demonstrate the lab's quality assurance work, promote the use of Canadian wheat, and gather market intelligence.

As the 1930s unfolded, the GRL continued to gain prominence under the leadership of its new director, W. E. Geddes. It acquired the Durum Research Lab and its durum milling and pasta-testing equipment from the University of Manitoba — including a spectrophotometer for studying pasta colour.

It began work, in conjunction with the Associate Committee on Grain Research, to test promising new varieties of wheat and barley. It also began working with other national and international organizations to research rust resistance and test new Canadian rust-resistance varieties, among other projects.

The GRL played an important role in helping to establish the new wheat variety Thatcher in the marketplace.

THE WAR YEARS AND BEYOND

During World War II, the lab continued its protein survey, moisture measurement and quality testing functions, although due to limited resources and staff, little new research could be undertaken.

It was, however, able to study the effects of long-term storage on grain sitting in terminals and bins due to a lack of customers. An entomologist was added to the team, insecticides were used, and for the first time, the GRL began testing for chemical residues.

In 1942, the GRL acquired the Malting Barley Lab from the National Research Council.

After the war, with J. A. Anderson at the helm, staffing was brought back to its full contingent and research flourished once again. Work was done on dough qualities, reactions that cause durum colour to fade during processing, and compounds that increase the viscosity of barley.

Work continued also on grain-drying research, and in 1951, when the harvest was wet and large numbers of farmers dried their grain for the first time, the GRL tested all farm-dried grain for milling and baking qualities. It also provided a free sample-testing service that helped farmers adjust their grain dryers.

In 1954, Anderson spelled out the five priorities for the lab as it moved into the second half of the 20th Century:

- assessing the quality of each new crop and informing domestic/foreign customers;
- recording the quality of all grades of grain at port providing lab services to the inspection branch;
- collaborating with plant breeders in the development and testing of new grain varieties;
- serving as the main centre for research into the quality of cereal grains.

He noted that research was most important, because "the improvement of all other services depends upon progress in research."

Today, almost 60 years later,

these priorities still continue to define the Grain Research Lab.

Another major contribution of Anderson's was his yearly overseas travel with the Canadian Wheat Board to promote Canadian grains and oilseeds, both to existing customers and to potential ones such as China.

G. N. Irvine, who would eventually succeed Anderson, worked with the CWB to train the grain technical officers in the Canadian Wheat Board's newly created technical services and marketing department. When he became director in 1963, he increased the amount of time he — and other staff members — spent overseas providing technical support to the CWB.

As well, to further bolster market development, Irvine established a technical services section within the GRL to study problems or potential problems in milling and baking of Canadian wheat in foreign countries.

As the 60s moved toward the 70s, the GRL's work in the testing of new varieties, an essential step prior to licensing, gained international respect — so much so that it collaborated with the U.S. Crop Quality Council to test the quality of American varieties.

A NEW ERA

A move in 1973, along with the rest of the GCG head office, into a modern building near the famed corner of Portage and Main heralded a new era of research, technology, achievements, and expansions for the GRL.

Keith Tipples, who became director in 1979, was a vital part of these exciting times. His work included a pioneering study of wheat protein strength, which enabled the lab to do more meaningful evaluations of

» CONTINUED ON NEXT PAGE



A.E. Birchard, the Board of Grain Commissioners first chief chemist, pushed for a scientific method of evaluating grain quality.



Allis Chalmers roll stands in the CGC lab have been in use for at least 80 years.

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CANADIAN GRAIN COMMISSION — 1912-2012

» CONTINUED FROM PREVIOUS PAGE

bread-baking qualities and potential new varieties.

Tipples also showed how the level of alpha-amylase enzyme found in wheat can affect quality — depending on the end products and specific baking methods used. Some markets such as Japan require sound top-grade wheat with a very low enzyme activity, whereas for other markets such as China, the moderate enzyme activity of No. 3 CWRS wheat may be perfectly satisfactory for their end uses.

In a recent interview, Tipples said that this and other research meant a different approach to looking at quality in wheat.

"We developed new areas of expertise, which allowed us to develop more sophisticated techniques of measuring quality," he said.

With the overhaul of the grading system in the early 70s, the lab worked with inspectors to relate the physical appearance of wheat to the quality required for its end use. If a particular type of damage did not negatively affect end use, there could be more tolerance to this damage.

"In this way, we maximized the amount going into the top grade, while protecting top quality," he said.

Another important highlight during this time were the achievements of the residue analysis section.

"This was a new, state-of-the-art lab that could provide detailed reports of toxic residues in parts per billion," Tipples said. "It assured buyers and users that Canadian grain was free from unacceptable levels of heavy metals, pesticides and mycotoxins."

During this era, new momentum and equipment were added to the GRL's flour mill, so that it could replicate, on a pilot scale, milling techniques of customer countries. This enabled the evaluation of Canadian wheat in foreign pasta, noodle and bread making.

Also during the 70s, a new oilseeds section — which had been created in response to the growth in rapeseed production — had almost immediate success when

it developed a rapid procedure for estimating erucic acid. This allowed for segregation of new, low erucic acid varieties.

Shortly after, Jim Daun, who worked in rapeseed and canola research at the GRL for 31 years, established specifications for glucosinolates and erucic acid — thereby helping to create the official definition of canola. He also developed a method of glucosinolate measurement; he was recently recognized by the Canola Council of Canada for his work.

are doing extensive work in DNA identification, and have become a world leader in this area."

In 2009, the GRL used its DNA expertise to mitigate a crisis in the Canadian flax industry. The terminated GMO variety Trifid had somehow made its way into European shipments and the commodity was quickly shut out of the EU marketplace.

"We worked with industry to develop a protocol for DNA testing in a matter of weeks," said Burnett. "The border re-opened to

During the Second World War, the lab continued its protein survey, moisture measurement and quality testing functions, although due to limited resources and staff, little new research could be undertaken.

The development of near-infrared technology for reliable rapid protein analysis in wheat was another world first, said Tipples. Protein segregation had been introduced along with the new grading system, and this technology revolutionized the process. (See related article.)

When Tipples retired in 1998, Bill Scowcroft led the GRL into the 21st Century.

THE GRL TODAY

Blue Allis-Chalmers stands aside, if Birchard and some of his immediate successors were to visit the Grain Research Lab today, most of it would be unrecognizable to them.

For example, wheat and barley variety identification is no longer done on a visual basis. Both DNA identification and polyacrylamide gel electrophoresis, a technology that uses electric currents to create protein profiles for comparison purposes, are being used to monitor varieties as they move through the system, said Peter Burnett, current GRL director.

At port, it means variety segregation can take place, and cargoes can be certified for classes of wheat and varieties of barley.

"We developed the technology to do this," Burnett said. "We

Canadian flax, and we can assure that all flax going to Europe is GMO free."

Another industry-response development at the GRL is a new pulse section, created as a result of the recent increase in pulse acreage, Burnett noted. One aspect of its research, the measurement and comparison of the cooking quality of peas from different samples, has led to the invention of the Mattson cooker, which can cook individual kernels.

This invention is now being used by research labs around the world.

Also in pulse research, image analysis is being investigated as a way to provide accurate photographs as reference for lentil grading. It is anticipated that this technology will address the problem of colour fading that occurs over time in actual samples.

Image analysis is also being used to count the undesirable colour specks in noodles and pasta.

Grain-safety testing and monitoring at the GRL is more important than ever as a result of changing world standards, but now in addition to pesticide, mycotoxin and heavy metal testing, the GRL regularly tests for fallout from nuclear accidents — something



Carlot inspections taking place at the CGC's original inspection room at the Winnipeg Grain Exchange building.

that would have had early GRL researchers scratching their heads in puzzlement.

Another recent GRL achievement, said Burnett, has been its work with breeders to develop low cadmium-accumulating varieties of durum wheat in order to meet international food safety standards.

Differentiating protein in wheat is now routine work, as a result of the 20 near infrared machines in use at the GRL. In addition, this technology is now being used to differentiate chlorophyll in canola to protect oil quality.

In the area of barley research, Marta Lzydorczyk and her team are using a rapid visco analyzer to predict how long malting barley will retain its ability to germinate.

This in turn predicts how quickly it must be used after harvest and how long it can be stored.

These wide-ranging research activities all contribute to the GRL's mandate, as set out in 1954, of surveying the annual harvest for quality, monitoring export shipments, and assisting in variety evaluation.

While so much has changed in the way this is done, the basic premise of providing quality assurance has remained the same. Like the blue roll stands, the Grain Research Lab has served the CGC and the Canadian grain industry solidly and consistently over the years, helping to enhance and maintain Canada's reputation in the international grain marketplace.

Nancy Edwards: keen for the challenges of wheat research

Her career path has focused on better understanding processing qualities in wheat and durum

BY VAL OMINSKI

When Nancy Edwards, a biological technology grad from Red River Community College, joined the Grain Research Lab as a technician in 1976, little did she know that one day she would be the scientist responsible for the lab's bread wheat research group.

Edwards went on to achieve her PhD in Food Science in 2002, thanks to the support and encouragement of now-retired GRL scientist Jim Dexter and other lab colleagues.

She built upon a decades-old tradition that started after the Second World War, when staff with potential and interest were encouraged to further their education. The difference is that they were all

men; Edwards became one of the first female scientists at the GRL — and she did it while holding down her job.

In 2005, she was promoted to her current position, where she is responsible for quality evaluation of wheat, as part of the GRL's annual harvest survey. In addition, she monitors CWRS cargoes leaving from the East, West or Churchill terminals and produces class profiles for marketing support.

Edwards has done groundbreaking work identifying baking and dough-mixing characteristics of durum wheat — not for traditional pasta making, but for bread making. She looked at durum lines from 14 different countries, in order to identify which proteins could make a variety suitable for bread-baking quality.

The end result could be new markets for Canada's durum wheat crop.

"I work on puzzles all the time," Edwards said. "For example, the bread-baking qualities of durum were not what I expected — and I needed to ask 'why.'"

Edwards also assesses new bread wheat lines for quality characteristics, as a member of the wheat, triticale and rye quality evaluation team that is part of the Prairie Grain Development Committee. She has recently created a new method for presenting data that makes her team's job easier.

Her next big project might not be yet known, but it could involve absolutely anything that affects the processing quality of wheat.

"There's always a new challenge around the corner, waiting to be solved," she says.

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Canadian Grain Commission — 1912-2012

Breaking into grain inspection was tough, but the rewards were worth it

Women have risen through the ranks in grain-inspection field

BY VAL OMINSKI

Debbie Pankewich has come a long way since she walked the decks of ships at Thunder Bay and sampled outgoing grain cargoes by hand.

Hired in 1979 by the Canadian Grain Commission to work in the weighing program, by 1982 she was one of a small group of female "pioneers" working in the inspection program. Traditionally, both disciplines had been a man's domain — and Pankewich knew she was on ground-breaking territory.

"The microscope was on you and you had to prove yourself to other staff and to management," she said. "For me, it was a motivating factor."

Over the next 30 years, that motivation took her up the corporate ladder, first in Thunder Bay, then on to Winnipeg where she eventually established the national monitoring program that reviews the work of grain inspectors across the country.

When Pankewich moved on to Montreal, and then to Vancouver as manager of inspection services for the eastern and western regions respectively, it was fitting that her replacement was also a woman whose early days included hand-sampling in the inspection program before working her way up. Laurie Campbell was the first female grain inspector on the Prairies.

"I was a rarity in what some might consider a man's world — I was in the last part of an era," Campbell said. "It was tough walking into an elevator, but once they learned I was a farmer myself, it was much easier."

Initially hired in 1986, by 1998 Campbell had become manager of Inspection Services for the prairie region, and in 2009, when the region was amalgamated into what is currently the central and western regions, she moved into her present position as manager of the national monitoring program.

She is adamant about the importance of inspection and grading, and the way they are done.

"You either have an aptitude for it or you don't," she said. "But you also have to develop a very unique skill set that needs to be constantly honed, to be sure you stay sharp."

"You look at a kernel of wheat and you have to be able to distinguish between degree of damage and the direct correlation to qualities for milling and baking. Because of Canada's reputation for producing top quality, we can export grain to customers based on a simple document attesting to this quality — something that a lot of countries currently can't do."

The inspection process starts when automatic grain-sampling systems take representative samples from each rail car going into a given port. Samples are first cleaned to assess dockage, and preliminarily inspected for



Laurie Campbell, the CGC's first female inspector on the Prairies, was hired in 1986.

moisture and protein. Then a grain inspector visually assesses and assigns the sample a grade which forms the basis of payment to the producer. Grain is exported using a similar process,

and all information is stored electronically.

Gone are the days of inland (primary) elevator inspection on grain destined to port — and in the very early days, of breaking the seal on rail cars, climbing in overtop the grain, and thrusting a probe down to acquire samples. Gone, too, are the days of hand-sampling aboard ships.

According to Pankewich, not just the physical work of the job, but also the health and safety regulations have evolved. Back in her day, she said, "only the fittest would survive." Many moved on.

She stayed, and today she manages an inspection program with

tain current grain standards and guides have been met.

This process helps ensure that grain is consistently graded the same way, regardless of where across Canada it is being done, and also helps identify any training needs that may be required by inspectors, Campbell said.

"The process is not to point fingers, but to ensure our inspectors have the training and skill they need in order to provide consistent grading and analysis," she said.

To maintain consistency in the lab, equipment is precision-checked each day before use — including the machine that exactly divides down all components of samples, the screens used to separate dockage, the protein testers and the moisture meters. Precision scales are calibrated every day, and even the grading lights have an expiry date because they affect how the grain will be seen.

Despite her obvious passion for her job, there is a downside, said Campbell — and it's that she no longer deals directly with producers.

"I really miss having that face-to-face contact and assisting them in understanding the grading system," she said.

Campbell is still farming herself near Teulon, Manitoba, and said she is grateful to the CGC for allowing her to work her vacation schedule around her farm work.

Pankewich, too, is appreciative of the opportunities afforded her by the CGC. During her various capacities, she has travelled domestically and internationally to promote the quality assurance programs that make Canadian grains so reputable worldwide.

"The CGC has allowed for growth, development and movement," she said. "I've loved the opportunities and the challenges — and I've taken them and ran with them."

"The microscope was on you and you had to prove yourself to other staff and to management. For me, it was a motivating factor."
— Debbie Pankewich

over 175 employees who grade all grain moving in and out of west coast port facilities, and at service centres in Calgary and Saskatoon where farmers can bring or send samples for personalized grading at a nominal cost.

Campbell, meanwhile, runs the lab that checks the work of these and all other CGC grain inspectors from across Canada. She and her staff select graded samples from approximately three per cent of all railcars that go into ports, and a larger percentage from export cargoes, reviewing the grading that has been done in order to make cer-

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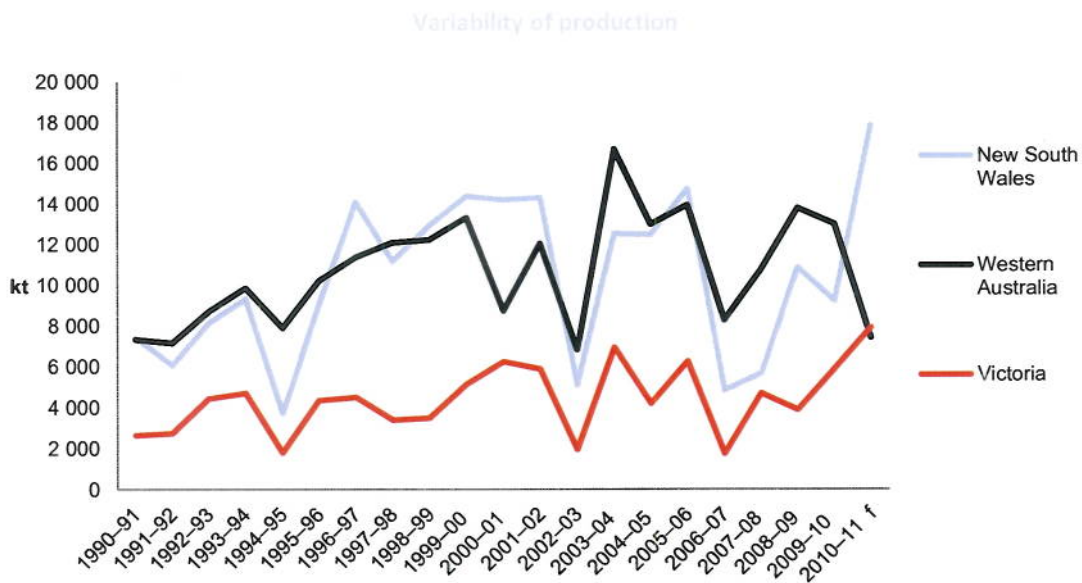
Australasian Railway Association submission to the Senate Standing Committee on Rural Affairs and Transport: Operational Issues in Export Grain Networks

Key Points

- There is great variability in grain production, both over time and by region, making the provision of transport infrastructure extremely difficult.
- Grain transport suffers from the concentration of power in the provision of freight and logistics services, increasing the cost of getting grain to market.
- Rail is the only mode that has enough capacity to handle a large grain harvest. Road freight is better suited to handling variability in production.
- The grain freight supply chain suffers from bottlenecks and severe capacity constraint including rail and road freight capacity and port access.
- Because of years of below average crop production, rail has been underutilised and there has been significant underinvestment in rail infrastructure. Combined with the significant diversion of resources towards mining freight, there has been a significant deterioration in rail grain freight capacity.
- The expectation of ‘cost recovery’ for rail infrastructure, fails to recognise the significant social, environmental and economic benefits of rail. It also fails to consider that nearly all regional transport infrastructure, including roads, are provided through significant subsidies by all levels of government.
- Greater investment in rail is the only to ensure efficient and reliable transportation to market of large grain harvests.
- The containerisation of grain rail freight would significantly increase the efficiency of grain freight movements, increase competition for the provision of services and reduce freight costs in the long run.
- Local government and producer ownership of grain freight infrastructure would increase the capacity and reliability of freight services, and reduce the overall freight and logistics costs for producers.

Grain production

Australia’s grain output varies greatly between seasons and between the east coast and west coast. In 2010/11, Australian grain production exceeded 22 million tonnes, and the coming grain harvest is set to be larger. Most of this output will come from the eastern seaboard states, with droughts in Western Australia severely reducing grain output. In preceding years, the situation was reversed, where Western Australia provided the bulk of grain output. The graph below demonstrates the variability of grain production between seasons and states.



The Grain Freight Task

Transportation from farm to port

Typically, rail is the dominant mode for grain transport from the point of grain consolidation, usually at a regional silo, to market. Heavy road vehicles handle the majority of movements from farms to consolidation points.

However, recent developments in grain production and transportation have significantly changed the operation of the grain freight supply chain. State government programs have deliberately diverted investment away from regional grain lines, imposing an effective road freight monopoly for movements from farms to consolidation points. While regional roads have been provided, through significant subsidies by local and state governments, the principle of cost recovery and privatisation has dictated investment in grain lines

In recent years, there has been an increasing incidence of on-farm storage, as farmers have increased their silo capacities to maximise the price they receive for their crops. This has reduced the need for grain consolidation points, and combined with the de-prioritisation of grain lines, has further increased producer's reliance on road freight for the transportation of grain.

Road transport can accommodate some of the variability in grain production. Road freight can more easily transfer operations to meet demand. However, the over-reliance on road transport has the potential to cause significant freight capacity constraints for regional Australia. While road transport can easily shift operations to follow demand, there is not sufficient road capacity to handle a large grain harvest on the east coast. Rail is the only mode of transport that has the capacity to handle a large grain harvest. Rail provides the base line grain freight capacity.

Silos

Most grain that is transported to port are consolidated at silos at various points along the supply chain. Most of these silos are controlled by GrainCorp. Silos found on main lines tend to be newer and can load and unload train consists in under two hours. Grain lines have much older silos that require significantly longer times for loading and unloading, often with additional staff. GrainCorp has little or no competition in the provision of storage infrastructure. Given GrainCorp's virtual monopoly of storage infrastructure, it has control over the grain rail freight supply chain.

Port Access

The three main export ports on the east coast for grain are Brisbane, Newcastle and Port Kembla. All the grain terminals at these ports are owned by GrainCorp. These terminals are owned by GrainCorp who sets charges with oversight by the Australian Consumer and Competition Commission. Grain from Queensland and Northern NSW predominantly are used for feedstock domestically, while the remainder is sent through to Brisbane for export. The remainder of grain from NSW is sent to Newcastle and Port Kembla.

Grain can be exported from Port Botany; however it would require the containerisation of the grain. To date this has not occurred. Victorian and South Australian ports also handle substantial amounts of grain.

Challenges

Variability of grain production and underinvestment in grain line infrastructure

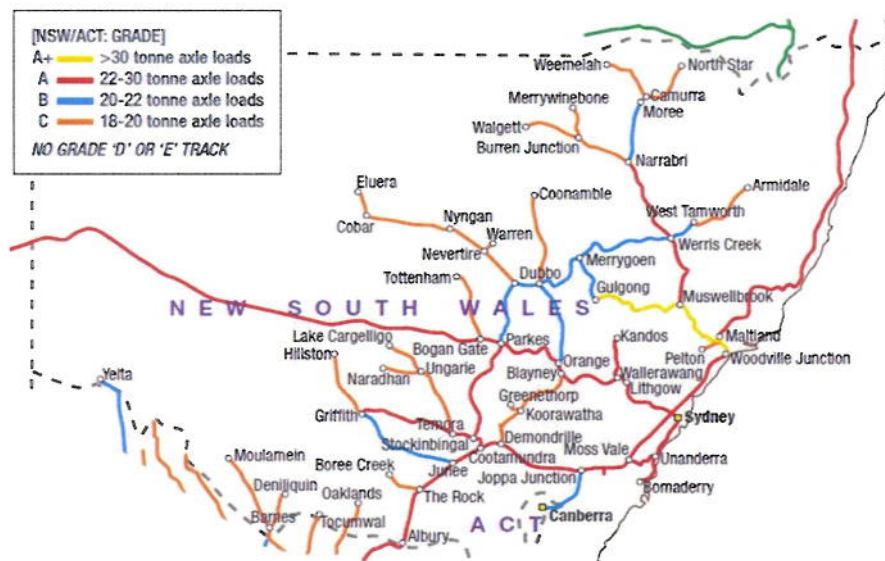
The variability of grain production makes it extremely difficult to provide cost effective rail infrastructure for the provision of reliable freight services for grain commodities. Due to severe under-investment and under-use of grain lines, the capacity of grain lines has been significantly reduced. Many lines have been closed, or have only been maintained to carry minimal freight loads.

Since the privatisation of regional rail infrastructure, the maintenance and upgrading of many lines have been deemed financially unviable. As a result, regional rail infrastructure has severely deteriorated and left operations in a suboptimal state. The financial imperatives for the provision of rail infrastructure stands in stark contradiction to regional road infrastructure, where roads are provided through significant subsidies by local and state governments.

Poor infrastructure quality

The state of some regional rail lines can be likened to that of dirt roads. Underfunding has led to the use of wooden sleepers and poor maintenance regimes, which have severely restricted the loads and maximum speeds on the rail lines, as demonstrated on the maps below. Grain lines on the east coast generally have axle load of less than 20 tonnes.

NSW rail network maximum axle loads

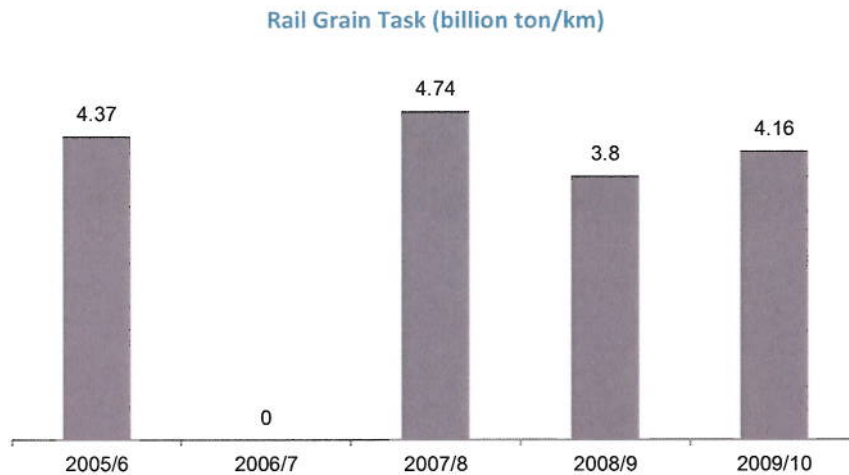


Victorian rail network maximum axle loads

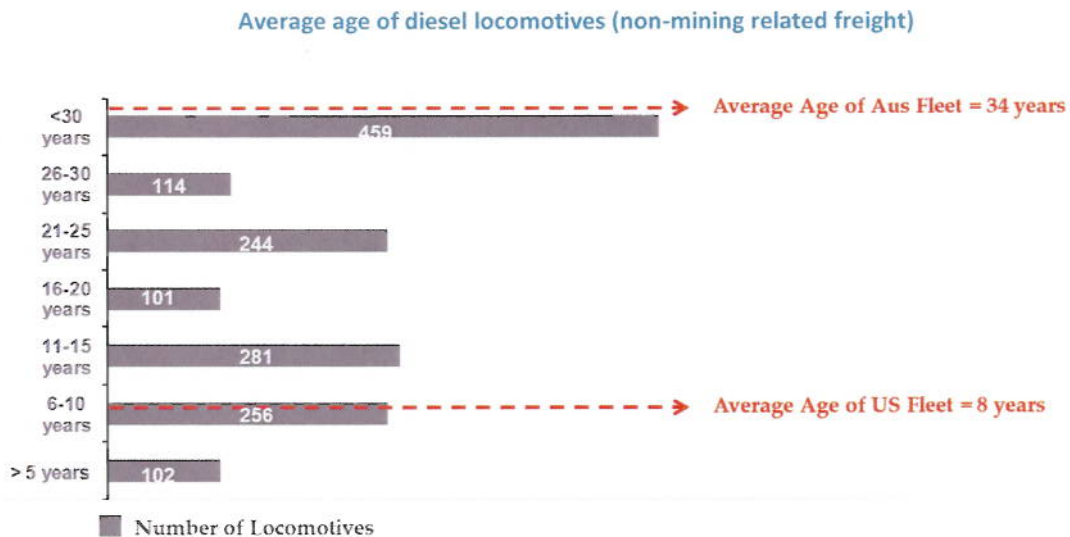


Unfavourable conditions for rail operators

Similarly, given rail’s capital intensive operations, and signals from state governments on the de-prioritisation of regional rail infrastructure, rail operators are increasingly reluctant to lock investments on services that are only marginally profitable and have highly unpredictable demand, as demonstrated in the graph below.



Subsequently rail operators have either divested from such operations, or moved their least productive capital equipment to service these lines. This is evidenced by the average age of regional rail locomotives, which is approaching fifty to sixty years. This further erodes the efficiency and reliability of regional rail services. There are currently less than 20 locomotives tasked with the east coast grain freight task, mostly servicing GrainCorp.



This under-use and under-investment in rail has come about by consistently below average grain production caused by bad weather, and due to deliberate programs by the New South Wales and Western Australian governments to divert investments away from grain lines. The privatisation of rail infrastructure and the increasing importance of financial cost recovery have diverted significant funds away from rail infrastructure. Regional roads on the other hand are provided and maintained on government subsidies.

Poorly aligned landside transport and port capacity

There is increasing constraints on landside access to major ports that handle grain. The Brisbane port has limited train paths for grain operators, especially given the increased demand by coal freight operations. The grain facilities at Newcastle Port are running well below capacity, however rail operations to the port are severely restricted due to noise issues, where operations can only run during the day. Unfortunately, most train paths to the port are available at night, making it extremely difficult to utilise the spare capacity at the port.

Port Kembla has increasingly utilised the use of heavy road vehicles, recently increasing the quota for truck movements by 200 000 tonnes above previous limits. This translates to more b-double and b-triple trucks using already congested and unsafe roads, such as Mt Ousley drive.

Competition from other bulk freight

The de-prioritisation of grain rail freight by governments will lead to a permanent loss of freight capacity for our farmers. Grain freight competes directly with other bulk freight movements, such as iron ore and coal, for rail services, rail paths and access to ports. With the de-prioritisation of grain freight, investment, rail paths and port access will be diverted to the more lucrative mining bulk freight task.

The mining bulk freight task is a much more lucrative market, benefiting from significant economies of scale and constant and growing demand for services. The sheer size and importance of the mining freight task cannot be underestimated. Of the 853 million tonnes of bulk freight moved by rail in 2009-10, 96-97% was mining related. Grain only accounted for 3-4% of the total task.

The carbon price package

The proposed carbon price package will further deteriorate the role of rail in the grain freight task. Of most concern to the rail industry is the impact of the two year exemption for heavy road vehicles, with no similar exemption for competing rail freight operators. This places rail at a significant competitive disadvantage. It is counterintuitive carbon price policy to attach additional charges to the more emissions friendly mode of transport, especially when the modes compete in the same market.

As discussed, grain rail freight operations are becoming increasingly financially marginal businesses. Operators run these services either to provide a full service to national clients or as a community service obligation. Any further deterioration of market conditions could encourage rail operators to leave the grain freight markets completely, and focus on the lucrative bulk freight market.

Consequences of current approach to the grain supply chain

Diminishing grain freight capacity

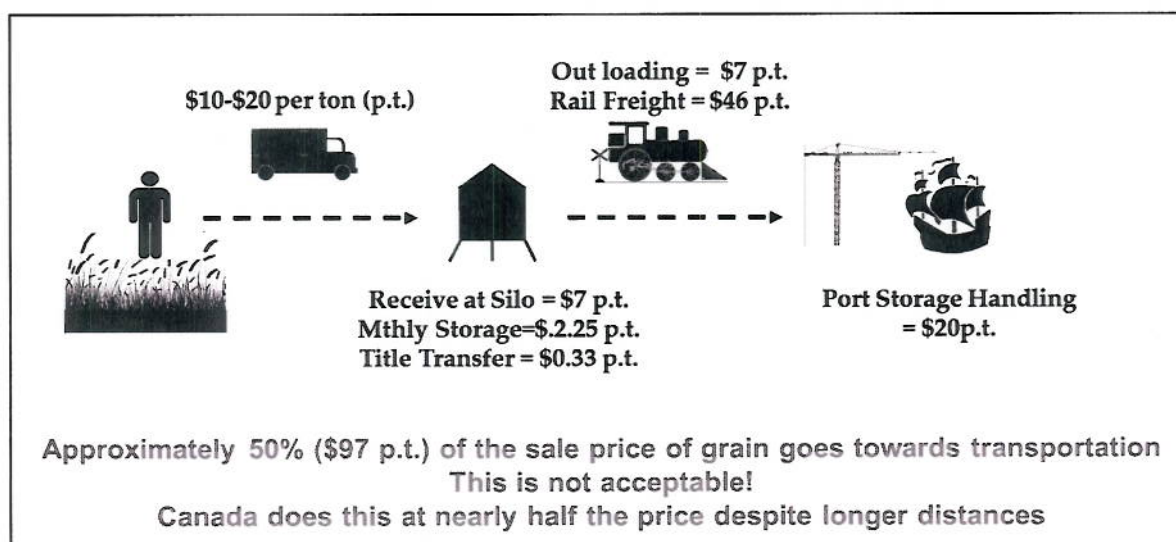
The reliance on road freight for the movement of grain produce seems a logical fit given variability of grain harvests, and the flexibility of road freight. However, road freight does not have sufficient capacity to carry grain freight during large grain harvests. Rail is the only mode that has sufficient capacity to carry the bulk of grain produce to market.

Increased logistics costs and supply chain bottlenecks

The deliberate de-prioritisation of regional rail freight services, the over-reliance on road freight and the resulting concentration of market control by one service provider will combine with the expected large east coast grain harvest will significantly increase supply chain bottlenecks and increase logistics costs for farmers.

There is not enough road capacity to handle the forecast large grain harvest in eastern Australia. Similarly regional rail infrastructure has been de-prioritised and left to deteriorate, restricting the efficiency and reliability of rail grain freight services. Given the lack of supply and reliability of freight services, and the market power of GrainCorp, farmers will have to pay more for freighting their produce, and the reliability and timeliness of the service will be compromised.

The de-prioritisation of rail freight will also reduce modal competition and increase the overall cost of grain freight. This is a significant issue, given that grain producers already pays more than 50% of the market price of their products for the transportation and handling of the commodity to market.



Deteriorating regional road infrastructure

The over-reliance on road freight will also place significant pressures on regional road infrastructure. These roads have not been built to withstand the forces of heavy road vehicles and will deteriorate quickly under constant use. This will either lead to significantly higher road maintenance costs for already financially constrained local governments, or road users will have to accept poorer quality regional roads.

Road safety

Around 1500 lives are lost on Australia’s roads every year, a further 30000 people are injured. This tragic toll costs the Australian economy around \$31 billion every year. The increased presence of

heavy vehicles on our regional roads, along with the road damage they cause, will have adverse effects on regional road safety.

Solutions

Recognition of the environmental and social benefits of regional rail services

The lack of government investment and the increasing push for the commercialisation of regional rail infrastructure neglects the social, environmental and community service benefits of rail. The notion that regional transport infrastructure can and must provide a return on investment does not stand to reason. Indeed regional road infrastructure is provided through significant local and state government subsidies. If the cost recovery imperative was applied to all transport infrastructure, regional Australia would have severe transport infrastructure shortfall. Transport infrastructure in regional Australia must be provided based on community service obligations (CSO). The provision of rail would provide the greatest economic, social and environmental benefits for this CSO.

Rail is the only mode that has the baseline capacity to handle a large grain harvest. It also provides greater social and environmental benefits. By way of example, shifting a container of freight off roads and onto rail between Melbourne to Brisbane provides an additional \$150 of economic, social and environmental benefits.

Containerisation of grain freight

The most significant operational reform in the grain freight supply chain would be the movement towards the containerisation of grain. The potential to move NSW grain in containers to Port Botany is large. There are many benefits to the containerisation of grain freight including:

- The utilisation of container freight capacity at east coast ports;
- Economies of scale and greater operational efficiency by combining grain freight with the larger intermodal freight market;
- Circumventing some of the antiquated storage infrastructure that services grain rail freight;
- decrease the centrality of storage infrastructure in controlling the grain freight supply change and subsequently increase competition in the provision of logistics and transport services for grain;
- Increase rail operator's capacity to service grain freight, allowing them greater flexibility in the utilisation of their assets; and
- Greater access to Asian markets that have ports that cannot handle bulk commodities.

There are some challenges to the containerisation of grain freight including the provision of produce quality containers and the improvement of the quality track infrastructure to a level that grain lines can effectively interact with mainline services. These challenges should not be a significant barrier and international experience suggests that the containerisation of grain freight is viable. In Canada around 25% of grain is freighted in containers.

Greater producer and local government ownership and control over grain lines and regional operations

Given the variability of the grain harvest, the provision of grain freight services is a low priority for most freight operators. The mining and intermodal freight tasks provide a more reliable and constant stream of demand. This variability is a contributing factor for the dominant position GrainCorp has gained in the grain freight market, where the barriers to entering the market are extremely high.

Local governments and grain producers are in the best position to provide competition on grain lines. This would also benefit grain producers and farmers by:

- Significantly reducing costs associated with grain freight through the provision of rail services when required and through increased competition for grain freight; and
- Cost savings in terms of significant road maintenance (cheaper to maintain grain lines than upgrade and maintain regional roads to handle b-doubles and b-triples.).

In Canada local governments and producer cooperatives own many of the grain lines and associated infrastructure. This benefits producers through significantly lower logistics costs and greater reliability and flexibility in terms of grain transport.