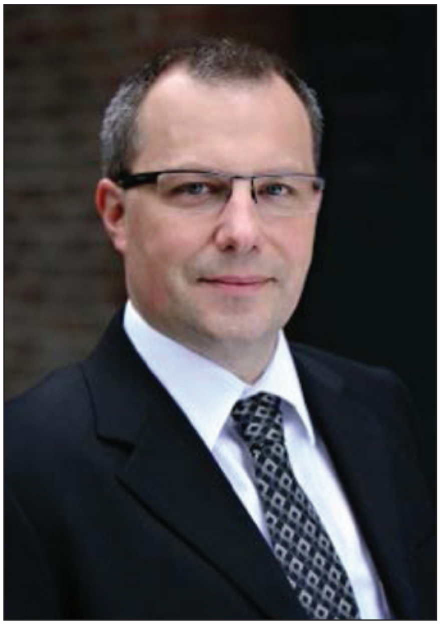


Record grain on the move

By Darryl Anderson
Managing Director, Wave Point Consulting

Grain, a staple of the Canadian transportation diet, is on the move in record volumes. Mark Dyck, Director of Logistics for the Canadian Wheat Board (CWB) observed: "The 2013 crop year will be huge, it is expected to increase by 25 to 35 per cent over last year's volume."

Annually, $11 to $13 billion dollars of grain is exported to over 70 countries. British Columbia's ports handled over 74 per cent of the grain directed to export position in 2012. While Port Metro Vancouver (PMV) remains the principal export point for western Canadian grain, the rising volume moving through Prince Rupert's grain terminal provides a complementary marine gateway.

Projected record grain volumes are occurring against a backdrop of a number of significant industry developments. It is with this in mind that this article explores the commercial, logistics, and port-related factors influencing one of Canada's most important export commodities.

Projected record grain volumes are occurring against a backdrop of a number of significant industry developments.

Deregulation of grain marketing

The deregulation of the western Canadian grain industry on August 1, 2012 is having a major impact. The CWB, no longer the exclusive (or "single desk") marketer of wheat, durum, and barley, now markets grain for the benefit of producers who choose to deal with them. And they are no longer restricted to marketing only wheat and barley. As a result, the CWB has introduced a canola pool and signalled that it may further expand into other grains as Dyck acknowledged they would be handling less cargo volume this year.

Mark Hemmes, President of Quorum Corporation stated: "The new marketing environment brought increased competition between grain companies with price often being the key consideration in the producer's delivery choice."

Casey McCawley, General Manager, Parrish & Heimbecker, Limited, who oversees the firm's interests in the Alliance Grain Terminal, Fraser Surrey Docks' agri-bulk facility, and Cloverdale Inland Terminal transload operation, said that "commercial signals are now more transparent" and any extra costs (railway routing choices, ship demurrage, etc.) cannot be pushed back onto the farmers. Logistics costs are having a more direct impact "on the bottom line of grain companies".

Pacific Northwest competition

While record crop volumes and the demise of the CWB's monopoly have been dominating Canadian discussions, American grain companies and Asian trading houses have been responding to rising international demand. This concern was raised by Mark Gordienko, President of the International Longshore and Warehouse Union (ILWU) Canada, while addressing a recent Chartered Institute of Logistics and Transportation conference. "Some aspects of our grain loading system, mainly in the Port of Vancouver, will see rising competition as a fair amount of investment in grain loading facilities in the U.S. Pacific Northwest has occurred," said Gordienko. He cited EGT, the Export Grain Terminal in Longview, Washington, with their $200 million investment as an example.

EGT's facility was the first new grain terminal to be constructed in the U.S. in 25 years. Subsequently, other grain terminal investment has occurred in the Pacific Northwest. The new, or enhanced, Pacific Northwest grain facilities have been targeting corn, wheat, soybeans, soybean meal, and dried distillers grains with soluble cargoes.

Inland transportation and logistics

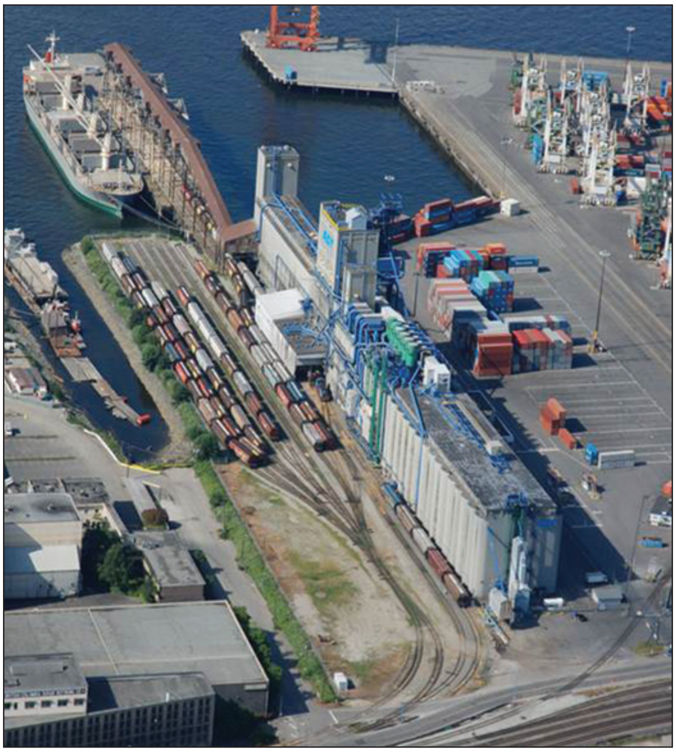
"Grain is the economic backbone of the countryside," said McCawley. The scope of the Canadian grain logistics pipeline is evidenced by the fact that 30,000 farmers will truck their harvest to 386 country elevators, or producer car loading sites. The vast majority of the grain is then loaded into hopper cars and transported by Canadian National Railway (CN) and Canadian Pacific Railway (CP) to four ports and 16 marine terminals across Canada.

While more intense export competition from the Pacific Northwest may occur in times of weaker U.S. crop yields, there are a number of logistics factors that are having a more immediate impact on grain transportation this year.

Dyck said: "With the increase in cargo volume, it will be a bit of a challenge for everyone involved since all players will have to manage their pipeline." In the past, the CWB was able to steer the various grades of grain to specific terminals but now, grain companies will be competing for the business.

In addition to the increasing production from farmers and the actions of grain companies, the pricing behaviour of Canada's two Class 1 railways is also having an influence on traffic flows. In their 2012-2013 Crop Year Second Quarter Report, Quorum Corporation, the Monitor of the Canadian Grain Handling and Transportation System, noted that there was a sharp rise (13.2 per cent) in the number of cars unloaded by CN compared to the 1.3 per cent handling gains made by CP. CN is the largest grain-handling railway in western Canada with a 52.1 per cent market share versus CP's 47.9 per cent share.

The West Coast ports of Vancouver and Prince Rupert have both benefited from an increase in grain shipments however, the relative division between CN and CP, with the former carrier's handlings into the port rising by 19.8 per cent in the face of the latter's much lesser 1.0 per cent increase is significant. The greater gain made by CN appeared to reflect the advancements it had made in bringing a more predictable service to grain shippers. This also resulted in an increase in gratin directed to Prince Rupert which rose by 10.9 per cent during the second quarter of the last crop year.



Alliance Grain Terminal.

"Some aspects of our grain loading system, mainly in the Port of Vancouver, will see rising competition..."

The Grain Monitor's analysis of railway pricing behaviour has noted that Prince Rupert has also benefited from a change to the rate structure compared to decade ago. Since the railway "Revenue Cap" came into effect 13 years ago, grain shipments to Prince Rupert have seen an overall increase of 12 per cent. In contrast, the movement of grain to the ports of Vancouver and Thunder Bay increased by 31 per cent and 32 per cent respectively. The overall rail freight price increase to the Port of Churchill was 35 per cent. This suggests that the railways are more favourably disposed towards the handling of westbound grain and continue to use price in an effort to influence that movement.

Whether CP, under the direction of new CEO E. Hunter Harrison, wishes to recapture a larger market share of the anticipated record grain crop this year remains to be seen. McCawley remarked: "CP currently has leased grain rail cars parked." CP's Kevin Hrysak did not respond to a request to discuss the 2013 outlook for grain yet McCawley observed: "September railway operations had been smooth." Both shippers and railways would no doubt welcome a mild winter to reduce the likelihood of rail-related logistics problems.

GRAIN EXPORTS

> *"We have some very old loading infrastructure that was built in the days of much smaller ships and much smaller cargo handling ability."*

B.C.'s ports and marine terminals

Activities within Port Metro Vancouver's grain juggernaut — five dedicated elevators, (Alliance Grain Terminal, Cargill, Cascadia, Pacific Elevators, and Richardson International), plus Vancouver Wharves, Neptune Bulk Terminals, and Fraser Surrey Docks — will influence Canada's reputation for overall grain logistics efficiency and supply chain reliability in the short-run.

Mark Gordienko said: "Although some upgrades have been done at the five terminals in the Port of Vancouver there has not been much done to the shipping end...We have some very old loading infrastructure that was built in the days of much smaller ships and much smaller cargo handling ability."

The implications of the present state of the marine infrastructure and the post-CWB commercial environment have led to a number of concerns, most notably:

Post Panamax vessels may be required to be turned at berth to allow loading or to reach hatches at the other end of the ship due to vessel size.

Ships are being forced to anchorage because terminals are not large enough to hold grains of sufficient quantity of the required grade. In addition, the movement of vessels between terminals has greatly decreased since the end of the CWB.

Given the potential cost implication of these issues, it is important to shed some light on the extent of any potential problem at PMV. In regard to the first issue, industry insiders have advised this author that Alliance Grain Terminal is where vessels may need to be turned to accommodate draft restrictions.

The issue of whether there is sufficient grain terminal capacity at Port Metro Vancouver in the post-CWB era and a record crop volume is more complex. McCawley observed that his facilities handle five main commodities. Grains like Hard Spring Wheat, for example, are also segmented by classifications based on protein and grade. As a result, port capacity is a function of both marine and railway logistics practices.

Bruce Chadwick, Director of Finance for the Pacific Pilotage Authority provided information on pilotage grain assignments. Table 1 clearly shows a decline in internal shifting at PMV's main grain terminal berths perhaps providing some support to the argument that ships are being forced to anchorage. The issue is not only the number of vessels required to go to anchorage but the length of time at anchorage that contributes to additional costs. The amount of time spent by vessels in port is an important performance measure of the effectiveness of the grain logistics system. The Grain Monitor noted that in early 2013, the most substantive increase in vessel dwell time was posted by PMV. The average rose by over 60 per cent, to an average of 14.9 days from 9.3 days a year earlier. In contrast, the Port of Prince Rupert experienced a 33 per cent drop in the average time in port.

In keeping with the added time taken by ships in port, the proportion of ships spending more than five days in port also rose, to 50 per cent from 45.0 per cent a year earlier. Moreover, there was a significant rise in the number of ships that remained in port for an uncommonly lengthy period of time, with the proportion of vessels spending 16 or more days in port, effectively doubling to 19 per cent from 10 per cent a year earlier. Virtually all of this delay was associated with ships calling at Vancouver.

These statistics suggest that, while the grain transportation and logistics system was already moving a record volume of grain in the first half of the 2012-13 crop year, that movement was not keeping pace with the demand for carrying capacity. Such a situation does not bode well when a record crop year is being predicted.

Richardson International Limited's decision to increase grain storage capacity by 82 per cent at its Vancouver terminal is welcome news. Richardson received a project permit from PMV on April 15, 2013 and commenced construction of a $120 million project. The new concrete grain storage facility that will hold 80,000 metric tonnes (MT) of grains and oilseeds is expected to be completed in 2015.

Increasing grain production has impacted the supply side. "The current generation of farmers are well capitalized," said McCawley. "Farms are being operated in a professional manner, making use of new technology to map fields and apply other techniques that result in increased crop yields." In McCawley's opinion, the need for grain logistics capacity through PMV warrants a robust discussion within the maritime community and with the railways. "The grain business is often perceived as the poor second cousin when it comes to Pacific Gateway expansion needs. It will be a challenge to keep the pipeline fluid," he said.

Pacific Pilotage Authority Grain Job Assignments						Forecast	Forecast
Marine Terminals	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Cascadia	285	450	462	509	433	420	364
James Richardson Int.	202	253	237	250	252	360	382
Alliance	228	281	271	281	247	260	220
Pacific	135	205	196	173	144	170	142
Internal shifting	(190)	(207)	(185)	(218)	(98)	(100)	(82)
Total Grain PMV	926	1,306	1,333	1,392	1,292	1,350	1,240

Table 1 — PPA grain job assignments shows a decline in internal shifting at PMB's main grain terminals.

Conclusions

While PMV may experience a lack of grain terminal capacity during the peak shipping periods, it may well be a combination of fluctuating ocean freight rates, rail capacity, availability and pricing, PMV land-use priorities, and the financial return on any new port-related elevator investments that will determine the extent of any loss of grain traffic. Under such a scenario, any slippage in grain traffic throughput could come from Prince Rupert, eastern Canada, the U.S. Gulf Coast, or Pacific Northwest.

While record grain volumes will be on the move this year, industry participants may need to find new ways of collaborating to ensure that Canada's grain crop is not delayed. The closer we come to elevator capacity limits on B.C.'s south coast, the more important this issue becomes. It is also more likely that competitiveness and grain capacity issues will be part of the debate about the future success of the Pacific Gateway now that we are in the post-CWB era.

Darryl Anderson is a strategy, trade development, logistics and transportation consultant. His blog Shipper matters focuses exclusively on maritime transportation and policy issues. http://wavepointconsulting.ca/shipping-matters