Grain Monitoring Program Report for: September 2016

Release Date: November 3, 2016

GMP Dashboard

Table M-1	SEP 2016	2016-17 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)			
Total Time in System	34.8	35.6	-10.3%
Average Days In Store – Country	22.1	21.1	-6.2%
Loaded Transit Time	4.5	4.6	-4.9%
Average Days In Store – Terminal	8.2	9.9	-20.2%
Total Traffic ('000 tonnes)			
Primary Elevator Shipments	3,901.6	7,383.2	-5.2%
Railway Shipments (all Western Canada traffic)	4,828.4	8,337.4	-1.4%
Western Port Terminal Shipments	3,015.0	5,518.7	-9.6%
Railway Performance			
Avg. Loads on Wheels (Cars)	10,188	8,744	-7.7%
Total Western Port Car Cycle (days)	13.2	13.4	-2.3%
Port Performance			
Western Port Unloads (Number of Cars)			
Vancouver	19,080	37,886	-7.4%
Prince Rupert	4,403	8,648	-17.8%
Churchill	0	0	-100.0%
Thunder Bay	9,958	18,1104	-3.4%
Total	33,441	64,638	-9.0%
Vessel Time in Port (days)	7.6	7.2	-2.7%

- *Order fulfilment measures have been removed from this table as comparative data is unavailable now.*
- *YTD refers to the crop year to date (extending from August 1 through July 31).*

Periodic revisions and corrections to the data received by the Monitor may result in the restatement of previously calculated measurement values. Where such differences arise, the values presented here should be considered to supersede those found in previous reports.

Overview

Persistent wet harvest conditions challenged producers and by extension the entire GHTS throughout September. Early seeding and good growing conditions had triggered optimistic projections for an early and bountiful harvest but, as August and September 2016 advanced and rainfall continued, farmers' attempts to take the crops off the fields were delayed. A large crop was still anticipated, although the wet weather would adversely affect its condition and quality. Increased new-crop deliveries and shipments from the country was met by an increase in the lineup of vessels at western ports in September. Similarly, total Western Canadian originated rail movements rose 5.3% over the previous September, but lagged on a year-to-date basis by 1.4% against last year's performance.

Western port shipments for September totaled 3.0 MMT, a 20.4% increase from the previous month but 5.3% lower than September of last year. Accompanying this increase in shipments, is a 7.6-day average in the amount of time vessels spent in port, noticeably higher than August's 6.8-day average.

As new-crop grain deliveries into the primary elevator system improved throughout September, GHTS participants rapidly geared up and to handle the anticipated demands on the system.

Highlights for September 2016

Traffic and Movement (page 2)

- Primary-elevator shipments were 7.4 MMT in the first two months of the 2016-17 crop year, 5.2% less than last year.
- Total rail shipments (including primary/process elevators & producer cars) to all destinations from Western Canada reached 8.3 MMT, down 1.4% from that handled in the same two-month period a year earlier.
- Crop year-to-date shipments from Western Canadian ports totaled 5.5 MMT, down 9.6% from the same period last year.

System Efficiency and Performance (page 4)

- Average weekly stocks in the country decreased by 9.5% from last year-to-date, while the average days-in-store was down only 6.2%.
- Average weekly port-terminal stocks decreased 23.0% from the same period last year, while average days-in-store fell 20.2%.
- Railcar cycle times through September averaged 13.4 days to western ports; 22.3 days to eastern Canada; and 23.1 days to US destinations.
- The year-to-date average for vessel time in port is 7.2 days, a 2.7% reduction from that observed in the previous crop year.
- September port-terminal out-of-car time grew to 23.7% in Vancouver, to 6.6% in Prince Rupert and to 5.0% Thunder Bay.

Commercial Relations (page 6)

- Average primary-elevation charges rose 0.5% in the first two months of the crop year.
- Single-car freight rates remained largely unchanged in September 2016 following modest reductions by CN in its westbound rates into Vancouver and Prince Rupert of 1.4% and 2.3% respectively at the beginning of August. These pricing actions were in addition to the collective rate reductions posted by CN and CP in their primary Vancouver and Thunder Bay corridors through the previous crop year, which reached up to 7% and 4% respectively.
- Average terminal-elevation rates held steady through September.

Infrastructure (page 7)

- The GHTS's country-elevator network was reduced by one facility in August, falling to 382 from 383. However, ongoing expansion efforts lifted the system's overall licensed storage capacity to almost 8.0 MMT – a new record – from 7.8 MMT.
- CN formally discontinued operations on the last 12.0-route-mile section of its Athabasca Subdivision in Alberta, thereby reducing the overall railway network to 17,276.1 route-miles.
- Completion of the expansion initiative launched by Richardson International in 2013 saw 81,700 tonnes of new storage capacity added to its terminal elevator in Vancouver. This raised the GHTS's total terminal storage capacity by 3.4%, to almost 2.5 MMT from the 2.4 MMT in place at the end of the 2015-16 crop year.

Production and Supply

The preliminary production estimate from Statistics Canada's July survey for 2016 crop production in Western Canada stands at 67.6 MMT, a 6.6% increase over that harvested in 2015. Nonetheless, if poor weather conditions continue, a substantial number of acres could remain unharvested this fall.

Coupled with carry-forward stock of 7.3 MMT, 19.8% less than in 2015, the overall western grain supply is projected to be 75.0 MMT, 3.3% greater than that of the previous year.

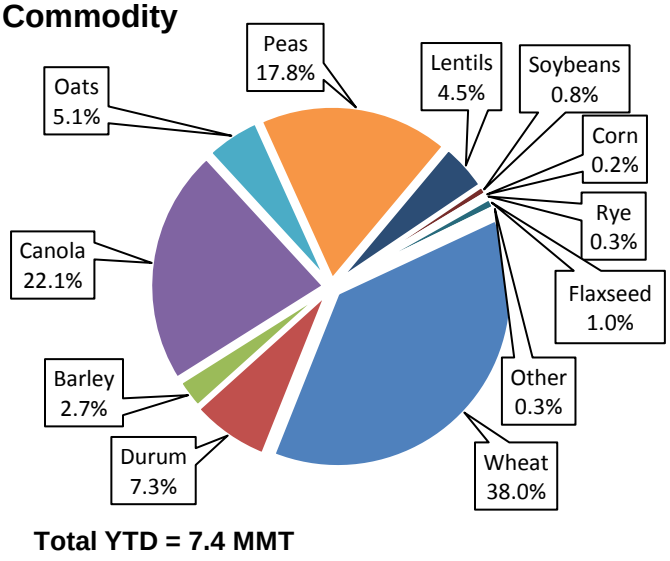
Production & Carry Over (000's tonnes) *Table M-2*	**2016**	**2015**	**Var. from Last Year**
Western Canada Total Production - Preliminary	67,617.2	63,425.7	6.6%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,343.9	9,162.6	-19.8%
Total Grain Supply	**74,961.1**	**72,588.3**	**3.3%**

Traffic and Movement

As harvest progressed in September, producer deliveries increased, averaging over 1.2 MMT for the month. Primary elevator stock levels grew to over 3.6 MMT, supporting increased shipment levels, despite some ongoing challenges matching grains and grades to sales programs due to grain quality issues resulting from persistent wet harvest conditions.

Table M-3	**SEP 2016**	**2016-17 YTD**	**Var. from Last YTD**
Primary Elevator Shipments (000's tonnes)			
Manitoba	791.4	1,487.7	5.8%
Saskatchewan	1,987.0	3,688.2	-2.9%
Alberta	1,095.6	2,158.2	-13.8%
British Columbia	27.6	49.1	-36.6%
Total	**3,901.6**	**7,383.2**	**-5.2%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	3,924.6	6,721.8	-2.3%
Shipments to Eastern Canada	225.8	348.6	-5.3%
Shipments to US & Mexico	635.2	1,180.8	4.9%
Shipments Western Domestic	42.8	86.2	4.3%
Total	**4,828.4**	**8,337.4**	**-1.4%**
Western Port Unloads (Number of Cars)			
Vancouver	19,080	37,886	-7.4%
Prince Rupert	4,403	8,648	-17.8%
Churchill	0	0	-100.0%
Thunder Bay	9,958	18,104	-3.4%
Total	**33,441**	**64,638**	**-9.0%**
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,655.8	3,178.9	-14.8%
Prince Rupert	376.0	688.8	-16.7%
Churchill	0	0	n/a
Thunder Bay	983.2	1,651.0	9.3%
Total	**3,015.0**	**5,518.7**	**-9.6%**

Primary Elevator Shipments by Commodity

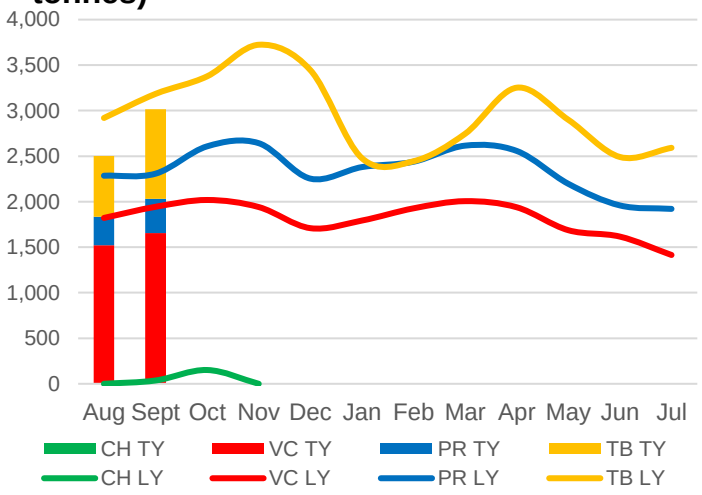


Total YTD = 7.4 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators increased through September achieving levels just 5.2% less than the previous crop year. The movement was predominantly wheat, canola and peas. Peas comprised nearly 18.0% of the shipments, compared to only 6.0% for the whole of the previous crop year. Peas mature and are harvested earlier than most other crops and, therefore, form a larger part of the sales program at this time of year.

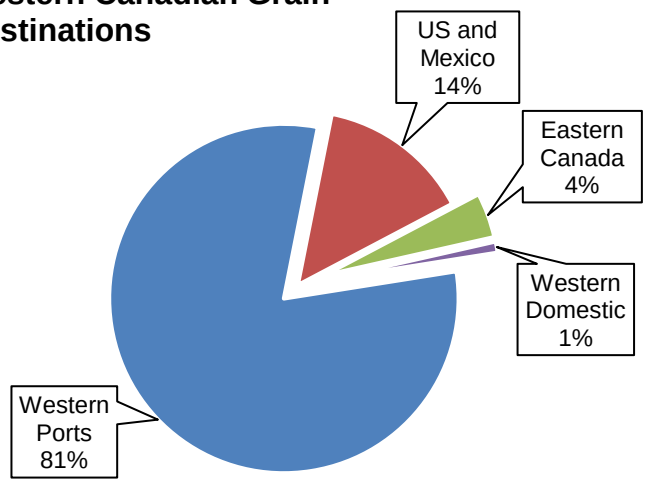
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Shipments out of the western ports declined in the first two months of the crop year, registering a 9.6% decrease on a year-over-year basis. Challenges in matching supply with the waiting vessel nominations were compounded by quality concerns as the harvest across the prairies continued to be delayed by wet weather. The 2016 season will not see any shipments from the Port of Churchill as the port's US-based owner, OmniTRAX, closed the grain terminal for the season.

Western Canadian Grain Destinations

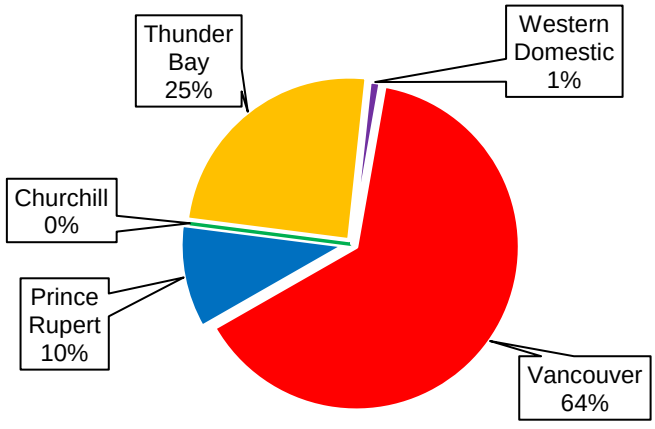


Total YTD = 8.3 MMT

GMP Data Tables 2B-1, 2B-8 & 2B-15

About 81% of the grain shipped by rail from the prairies is directed to Western Canada's four ports in support of offshore sales. Total rail shipments to these ports in the first two months of the 2016-17 crop year amounted to 6.7 MMT, down 2.3% from that handled in the same period a year earlier. Over 95% of this volume is handled in covered hopper cars, with Vancouver accounting for about two-thirds of the hopper-car traffic. Year-round operations, favourable logistical economics and better access to major Asia-Pacific markets combine to favour this gateway over all others. Following a weak start in August, hopper-car shipments rebounded sharply in September, stemming the losses from the month before. Total year-to-date hopper-car shipments through September increased by 2.2% for Vancouver but decreased by 3.6% for Thunder Bay and 22.7% for Prince Rupert. Shipments into Eastern Canada during this period also declined, falling by 5.3%.

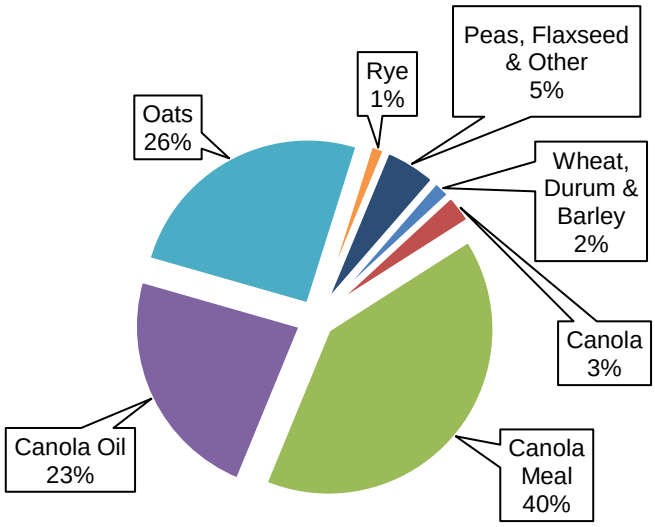
Western Canadian Destined Hopper Car Traffic



Total YTD - 6.5 MMT

GMP Data Tables 2B-3 to 2B-7

US Destined Grain by Commodity



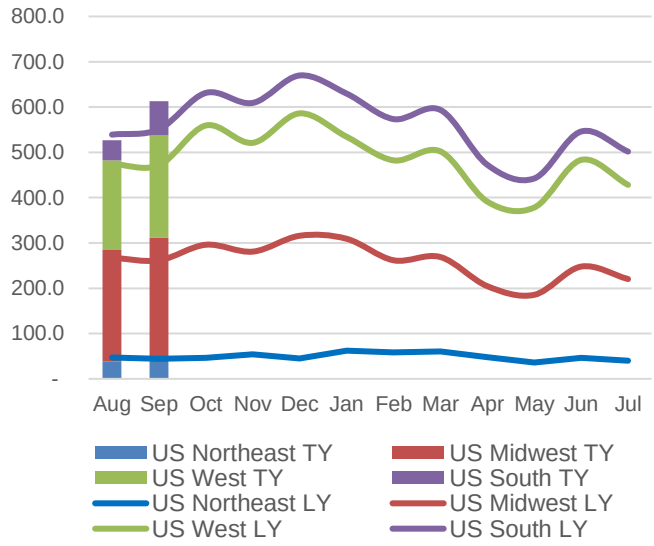
Total YTD - 1.1 MMT

GMP Data Table 2B-18

Rail shipments into the US, which totaled 1.1 MMT through September 2016, increased by 4.6% over that handled in the same period a year earlier. The movement is dominated by canola and canola products, which accounted for 66% of the total tonnage. The majority of US-bound traffic is directed into markets in the US Midwest and West, with 48.5% of all US-bound tonnage sourced out of Saskatchewan.

Rail traffic from Western Canada to Mexico totaled 41,100 tonnes through September, an increase of 15.0% over that reported in the same period a year earlier.

US Destined Grain by Destination Territory (000's tonnes)



GMP Data Table 2B-18

System Efficiency and Performance

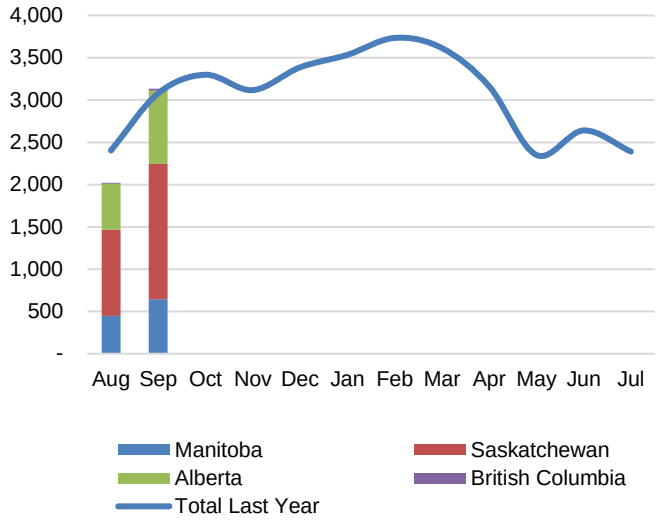
Primary elevator stocks climbed during September as the harvest became widespread and producer deliveries rose. The weekly average was 3.1 MMT, up from 2.0 MMT in August. Available delivery space in the country network was good throughout the period. Country elevators utilized only 69% of the working capacity of the network. By province, stocks ranged from 67% of working capacity in Manitoba and Saskatchewan, to 73% in Alberta and 88% in British Columbia.

Year-over-year average days-in-store in the primary-elevator system for the crop year thus far shows a moderate decline from past performance, falling by 6.2% from that experienced last year.

Table M-4	SEP 2016	2016-17 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	3,133.0	2,515.4	-9.5%
Average Days in Store	22.1	21.1	-6.2%
Railway Operations (days)			
Cycle Time to Western Ports	13.2	13.4	-2.3%
Cycle Time to Eastern Canada	19.5	22.3	-10.1%
Cycle Time to US	22.5	23.1	-13.2%
Loaded Transit to Western Ports	4.5	4.6	2.8%
Loaded Transit to Eastern Canada	8.1	9.7	-6.5%
Loaded Transit to US	9.6	9.3	-14.7%
Traffic in 50-car+ blocks (Q4)	86.8%	85.7%	1.2%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	962.5	897.9	-23.0%
Average Days in Store	8.2	9.9	-20.2%
Port Unloads (hopper cars)	33,441	64,638	-9.0%
Terminal Out-of-Car Time	17.0%	16.0%	-10.6%
Western Canada Port Operations			
Average Vessel Time in Port (days)	7.6	7.2	-2.7%

Car order and order fulfillment data is not complete from both railways and will not be reported until further notice.

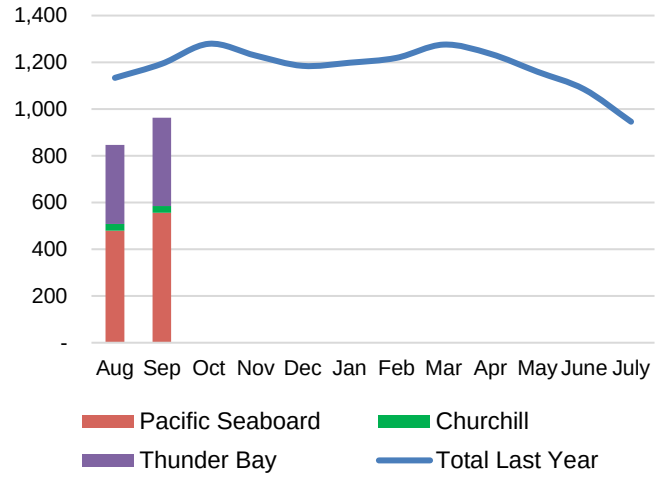
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Following a sharp decline to 2.0 MMT in August, average country elevator stocks reversed direction and climbed to over 3.1 MMT in September. Despite challenging harvest conditions, significant new crop deliveries replenished supplies as shipping increased to meet aggressive sales programs. Weekly deliveries averaged over 1.2 MMT throughout September.

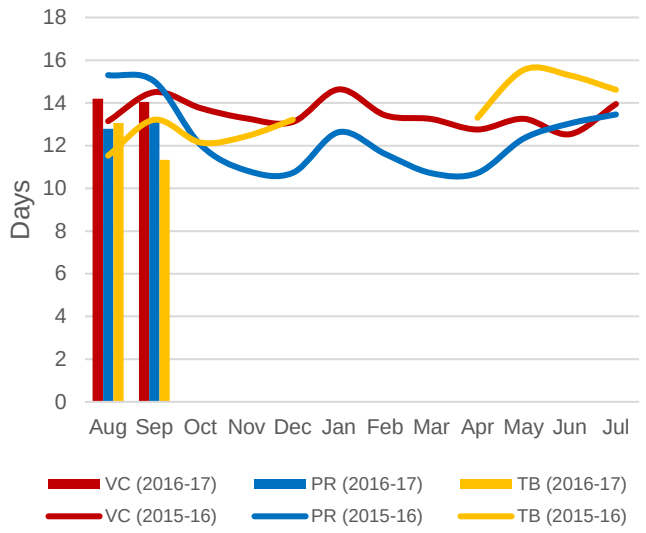
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

As with country elevator stocks, the average of just over 1.0 MMT in store at terminal elevators in September echoes a rebound from the low seen in August. Terminal stock levels had been steadily declining from the 1.3 MMT seen in March. A steady supply of vessels has been on hand at the West Coast and at Thunder Bay to load arriving grain. Port operators responded rapidly to increased grain arrivals, eager for supplies to match sales programs. Currently western ports are utilizing just 56% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

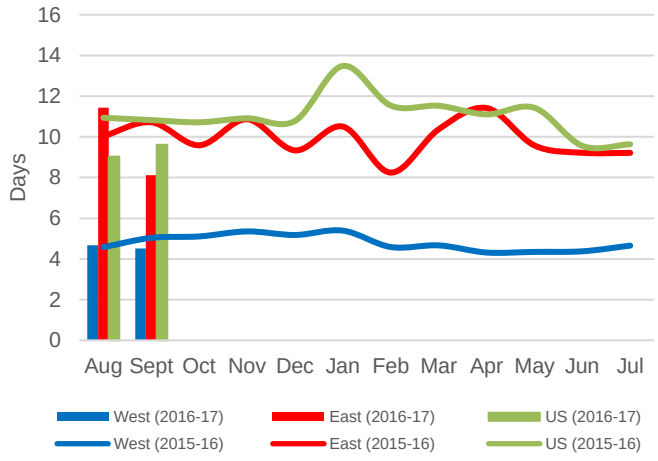


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 13.4 days through September 2016, a reduction of 2.3% from the 13.7-day average recorded in the same two-month period a year earlier. This reduction was largely shaped by a 14.3% decrease in the Prince-Rupert-corridor average, which fell to 13.0 days, along with a lesser 2.7% decrease for Thunder Bay. This reduction was, however, partially tempered by a 1.6% increase in the Vancouver-corridor average. (Note: The Churchill average is not factored into that of Western Canada as a whole.)

Car cycles to Eastern Canada also decreased during this period, falling by 10.1%, to an average of 22.3 days from 24.8 days a year earlier. Similarly, the car cycle for movements into the United States declined by 13.2%, to an average of 23.1 days from the 26.6-day average posted in the same period of the previous crop year.

Average Loaded Transit Times (days)

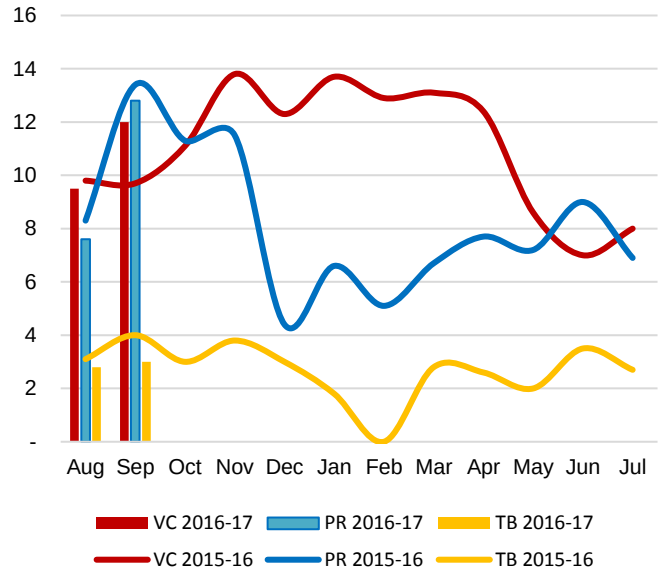


GMP Data Tables 5B-4, 5B-8, 5B-12

Loaded transit time for traffic destined to Western Canadian ports averaged 4.6 days in the first two months of the 2016-17 crop year, down 4.9% from the 4.8-day average posted a year earlier. This result was shaped by reductions in all three corridors: Vancouver, 0.8%; Prince Rupert, 14.5%; and Thunder Bay, 6.6%.

The average loaded transit time for movements into Eastern Canada also declined, falling by 6.5%, to 9.7 days from 10.4 days the year previous. The corresponding average for US-destined traffic showed an equally substantive 14.7% reduction, falling to 9.3 days from the 10.9-day average posted twelve months earlier.

Average Days in Port per Vessel

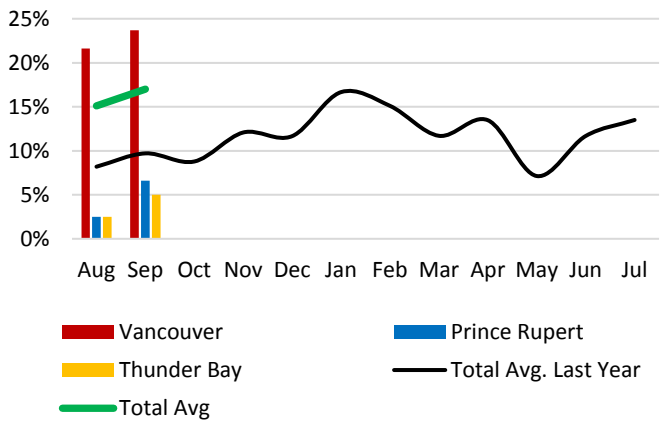


GMP Data Table 5D-1

For the first two months of the 2016-17 crop year, the average time vessels were in port waiting and loading grain was 2.7% less than in the same period of the previous year. The average for all ports was 7.6 days in September 2016, higher than the 6.0-day average registered at the end of the 2015-16 crop year. The delays in harvest and challenges matching grain and grade arrivals to the sales programs represented by waiting vessels contributed to this increase.

During the 2015-16 crop year, the average time vessels spent in port at Vancouver fluctuated between ten and fifteen days, dipping below that level as the year ended. At Prince Rupert, the last crop year started with averages in that range but moderated by December, with the time in port fluctuating between five and ten days for the balance of the year. Thunder Bay's average hovered in the two to four-day range. Overall, these levels, along with the performance seen in August and September 2016, reflect relatively smooth movement from country to port as the new crop year progresses.

Port Terminal Out-of-Car Time
(% of total operating hours)



GMP Data Table 5C-5

The port terminal out-of-car time measure represents the total number of hours terminal elevator facilities are open and staffed (including overtime hours) and the corresponding number of hours that terminals have no rail cars available to unload. The measure is expressed as a percentage (hours without cars to the total number of hours working).

Notwithstanding some fluctuation, the percentage of time terminals are out of cars has charted a trend of improvement from its high of 29.8% in January of 2015. There was a modest uptick in September 2016, as the aggregate measure for all ports increased to 17.0% from 15.1% in August. All ports registered an increase from August, with terminals at Vancouver climbing to 23.7%, Prince Rupert to 6.6% and Thunder Bay to 5.0% of their time being without railcars to unload.

Commercial Relations

Table M-5 **Rates: $CDN per tonne**	**Q4 2015-16**	**Index (1999=100)**	**% Change YTD**
Avg. Primary Elevation	$15.97	133.1	-1.6%
Rail to Vancouver			
CN	$48.79	132.2	-6.4%
CP	$50.30	135.5	-6.7%
Rail to Pr. Rupert			
CN	$49.19	117.9	-5.6%
Rail to Thunder Bay			
CN	$48.21	150.2	-0.9%
CP	$43.35	145.3	-3.8%
Average Terminal Elevation	$14.29	156.8	2.2%

Note: *Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the fourth quarter of the 2015-16 crop years. Rail rates are as at July 31, 2016, and reflect the average weighted single-car rate. They do not include multi-car incentives ($4/tonne for 50 + car blocks and $8/tonne for 100 + car blocks).*

In comparison to the single-car freight rate reductions posted in the 2015-16 crop year, initial railway pricing actions in 2016 have proved more modest. CN led the way with decreases amounting to about 1.4% and 2.3% in its respective Vancouver and Prince Rupert corridors while maintaining eastbound rates into Thunder Bay unchanged. For its part, CP extended its existing rates in both the Vancouver and Thunder Bay corridors. Neither carrier adjusted its rates in September. These pricing actions fell well short of the potential rise suggested as a result of the 4.8% increase in the VRCPI, which was determined by the Canadian Transportation Agency in April 2016.

Commercial Developments

Hanjin receivership causes market turmoil:

Succumbing to a prolonged depression in the ocean-shipping market, financially troubled Hanjin Shipping filed for receivership on 29 August 2016. The receivership followed on the heels of the Korea Development Bank's decision to withdraw any further financial support from the carrier effective 4 September 2016. The move into receivership by the world's seventh largest container carrier sent commercial ripples throughout the ocean-shipping industry. Although the state-run Korean Financial Services Commission said that the government would promote the sale of Hanjin's core assets to Hyundai Merchant Marine in a bid to maintain the competitiveness of the shipping industry at large, ports and terminal operators around the globe soon began to refuse Hanjin ships. This left many of the carrier's 141 ships – along with the cargo they carried – stranded at sea or at anchor while interim financial arrangements were sought. Canadian pulse and specialty crops, which are often transported in containers to reach offshore markets, were affected by the resultant uncertainty. The Hanjin Vienna at Vancouver and the Hanjin Scarlet at Prince Rupert were both forced to anchor under arrest without offloading their cargo. One of the immediate commercial consequences of the Hanjin receivership was the realization by other shipping companies that transoceanic freight rates had fallen to unsustainable levels. This prompted an immediate industry-wide escalation in container rates as carriers around the world began to move in response to the crisis.

New railcar plant established in Moncton:

In late September 2016, it was announced that ARS Canada Rolling Stock, a Miami-based partnership formed by Chinese railway interests, would be opening a new railcar manufacturing facility in Moncton, New Brunswick. The company, which acquired the assets of the former Industrial Rail Services a year earlier, states that it plans to produce grain hoppers, boxcars and TC-117 tankcars for service in the North American market. Its initial focus will centre on the construction of new hoppers and boxcars, with production of up to 1,500 cars anticipated in the first year of operation. New tankcar construction would follow some two years later. Much of the company's commercial effort appears directed towards addressing the replacement needs of aging and outdated equipment.

Infrastructure

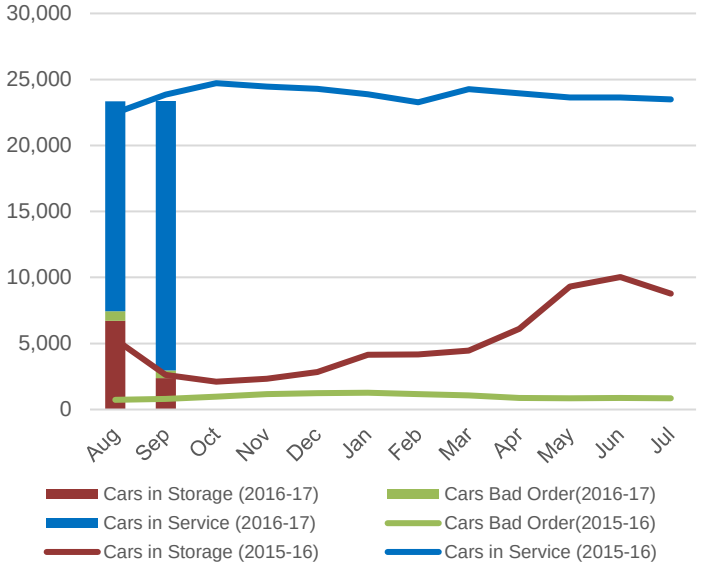
The GMP monitors infrastructure changes on a quarterly basis with the exception of the railway car fleet. Only modest changes were noted to the GHTS's infrastructure in the first two months of the 2016-17 crop year. Chief among these was a 0.3% reduction in the total number of country elevators, which fell to 382 from 383. However, recent expansion initiatives lifted the GHTS's licensed storage capacity by 1.4%, to almost 8.0 MMT from the 7.8 MMT in place at the close of the 2015-16 crop year. Another 12.0 route-miles of railway infrastructure was lost following CN's decision to abandon the last remaining portion of its Athabasca Subdivision (aka Athabasca spur) in Alberta. This served to reduce the network by less than 0.1%, to 17,276.1 route-miles from 17,288.1 route-miles. The new crop year also brought an 81,700-tonne increase in the licensed storage capacity of the Richardson International terminal in Vancouver, which lifted the terminal-elevator system's total to almost 2.5 MMT from the 2.4 MMT in place at the close of the previous crop year.

Table M-6	Q4 2015-16	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	383	38.1	3.5%
Storage Capacity (000's tonnes)	7,844.6	111.6	7.0%
Railway			
Route Miles - Major Carriers	14,664.2	98.9	-1.2%
Route Miles - Shortline Carriers	2,623.9	56.5	1.4%
Route Miles - Total	**17,288.1**	**88.8**	**-0.8%**
Average Weekly Total Hopper Car Fleet Size*	23,364	n/a	0.6%
Terminal Elevator			
Terminal Facilities (Count)	15	107.1	-11.8%
Storage Capacity (000's tonnes)	2,393.2	93.6	-1.3%

** Hopper Car Fleet Size represents all cars in all statuses for the month of September 2016.*

During times of heavy demand for grain hopper cars, nearly all of the grain hopper car fleet is called into service. As traffic volumes slowed in the later months of the 2015-16 crop year, railways began the process of moving cars into storage. In July 2016, a weekly average of only 14,724 cars, representing 63% of the fleet was in active service. The cars in service rebounded to a degree during August, climbing to 15,918. September saw the weekly average of cars in service jump to 20,414, now encompassing 87% of the overall fleet, as the system geared up to handle the demands of the new crop being harvested. The balance of the fleet, comprising 13% of the rail cars, is in storage or repair status (bad order), a steep decline from 37% in July.

Railway Grain Fleet Size and Utilization



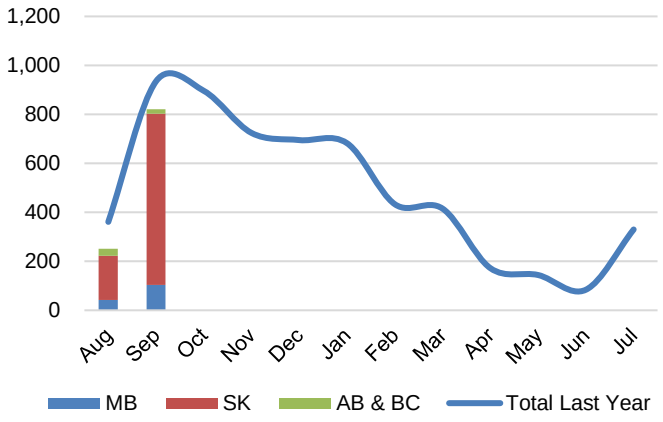
GMP Data Table 3B-2

Producer Cars

In September, CP de-listed a total of 22 producer car loading sites. This was comprised of three sites in Manitoba, four in Alberta and 15 in Saskatchewan. At the same time, CP added two loading sites to their Saskatchewan list. The net reduction is 20 Class 1 Carrier sites. The total number of available producer car loading locations now stands at 296.

Table M-7 **Producer Car Loading Sites**	SEP 2016	Index (1999=100)	% Change YTD
Class 1 Carriers	159	24.7	-11.1%
Shortline Carriers	137	210.8	0.0%
All Carriers	**296**	**41.7**	**-6.5%**

Producer Cars Scheduled by Province



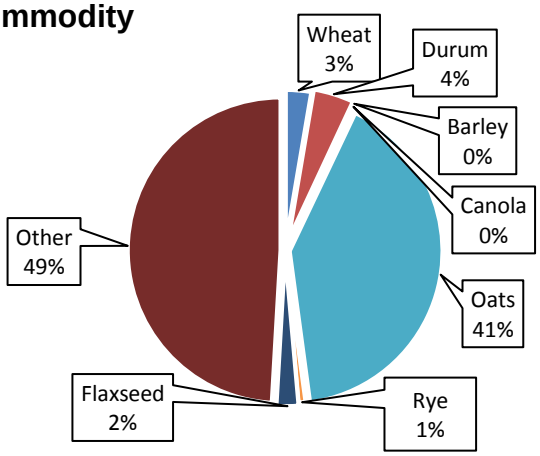
GMP Data Table 6B-2

Table M-8 **Producer Cars Scheduled**	SEP 2016	2016-17 YTD	Var. from Last YTD
Manitoba	103	145	-42.0%
Saskatchewan	699	880	-6.4%
Alberta & B.C.	19	47	-55.7%
Total	**821**	**1,072**	**-17.3%**

Producer car shipments have evolved from primarily being wheat, durum and oats to including significant numbers of cars carrying special crops. Shipments in the first month of the crop year continue to reflect this trend, with the traditional commodities comprising only 48% of the total. The balance consists primarily of peas and special crops.

Producer cars scheduled in the first two months of the crop year were down 17.3% from the previous year. Delays in harvesting the 2016 crop contributed to a reduction of over 16.0% in producer car applications received during this period.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2

Container Trans-loading in the Greater Vancouver Area

Quorum Corporation
Suite 701, 9707 – 110 Street
Edmonton, AB T5K 2L9
Email: info@quorumcorp.net
Web: www.grainmonitor.ca
Phone: (780) 447–2111

This report provides a summary of the data developed under the Grain Monitoring Program. Detailed monthly Data Tables can be found in Excel format on Quorum's website at: www.grainmonitor.ca

Quorum welcomes questions and comments on the reports and data. Please contact us at our address by either phone or email