Grain Monitoring Program Report for: October 2016

Release Date: December 6, 2016

GMP Dashboard

Table M-1	OCT 2016	2016-17 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)			
Total Time in System	37.3	36.1	-11.5%
Average Days In Store – Country	23.2	21.8	-9.2%
Loaded Transit Time	4.7	4.6	-6.0%
Average Days In Store – Terminal	9.4	9.7	-17.8%
Total Traffic ('000 tonnes)			
Primary Elevator Shipments	4,017.4	11,400.6	1.7%
Railway Shipments (all Western Canada traffic)	4,965.3	13,302.6	-0.1%
Western Port Terminal Shipments	3,169.2	8,768.7	-7.5%
Railway Performance			
Avg. Loads on Wheels (Cars)	12,039	9,754	-6.3%
Total Western Port Car Cycle (days)	11.8	12.9	-4.5%
Port Performance			
Western Port Unloads (Number of Cars)			
Vancouver	20,066	57,952	-3.3%
Prince Rupert	6,116	14,764	-10.8%
Churchill	0	0	-100.0%
Thunder Bay	9,619	27,726	1.9%
Total	35,801	100,442	-4.7%
Vessel Time in Port (days)	8.5	7.7	4.1%

- *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, including snowfall in the western prairies, challenged producers and by extension the entire GHTS throughout October. Early seeding and good growing conditions had triggered optimistic projections for an early and bountiful harvest but, as the 2016 fall advanced and cool, wet weather continued, farmers' attempts to take the crops off the fields were stalled. A large crop was still anticipated, but at the end of October a substantial portion remained unharvested. Although Manitoba's harvest has been largely completed, at the end of October only an estimated 76% of Alberta's crops and 82% of Saskatchewan's crops were in the bin.

Total Western Canadian originated rail movements rose 2.3% over the previous October, and lagged on a year-to-date basis by just 0.1% against last year's performance. Western port shipments for October totaled 3.2 MMT, a 2.4% increase from the previous month but 6.2% lower than October of last year. Accompanying this increase in shipments, is an 8.5-day average in the amount of time vessels spent in port, higher than September's 7.6-day average.

Deliveries into the primary elevator system provided ample supply throughout October, as the GHTS participants rapidly geared up to handle the demands on the system.

Highlights for October 2016

Traffic and Movement (page 2)

- Primary-elevator shipments were 11.4 MMT in the first quarter of the 2016-17 crop year, 1.7% higher than last year.
- Total rail shipments (including primary/process elevators & producer cars) to all destinations from Western Canada reached 13.3 MMT, down 0.1% from that handled in the first quarter a year earlier.
- Crop year-to-date shipments from Western Canadian ports totaled 8.8 MMT, down 7.5% from the same period last year.

System Efficiency and Performance (page 4)

- Average weekly stocks in the country decreased by 5.5% from last year-to-date, while the average days-in-store was down 9.2%.
- Average weekly port-terminal stocks decreased 20.2% from the same period last year, while average days-in-store fell 17.8%.
- Railcar cycle times through October averaged 12.9 days to western ports; 20.3 days to eastern Canada; and 23.2 days to US destinations.
- The year-to-date average for vessel time in port is 7.7 days, a 4.2% increase from that observed in the previous crop year.
- October port-terminal out-of-car time fell to 14.4% in Vancouver, to 3.1% in Prince Rupert and to 4.6% Thunder Bay.

Commercial Relations (page 6)

- Average primary-elevation charges rose 0.3% in the first quarter of the crop year.
- Single-car freight rates moved higher in October as both CN and CP instituted across-the-board increases of 5.0% and 4.0% respectively. Given the initial reduction in CN's westbound rates at the beginning of the crop year, this resulted in average first-quarter increases in the primary Vancouver and Thunder Bay corridors of 3.8% and 4.4% respectively.
- Average terminal-elevation rates rose 0.1% through October.

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.
- The discontinuance of a 12.0-route-mile section of CN track resulted in the overall railway network contracting 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.

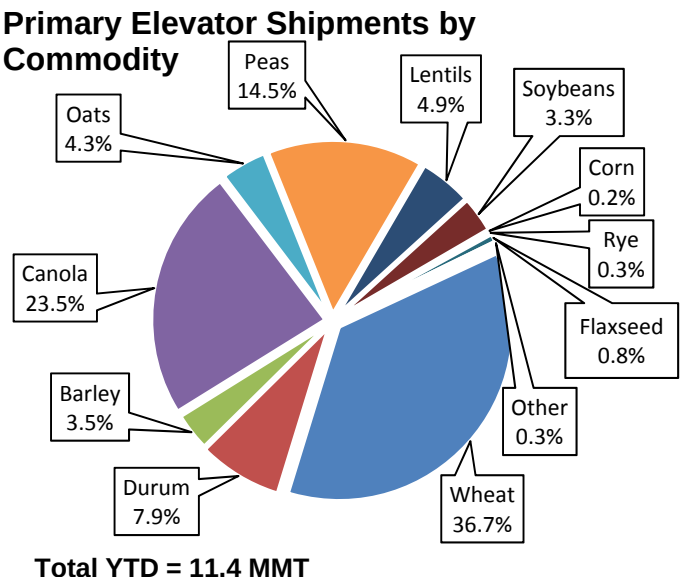
Coupled with carry-forward stock of 7.3 MMT, 19.8% less than in 2015, the overall western grain supply is projected to be 75.0 MMT, 3.3% greater than that of the previous year.

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

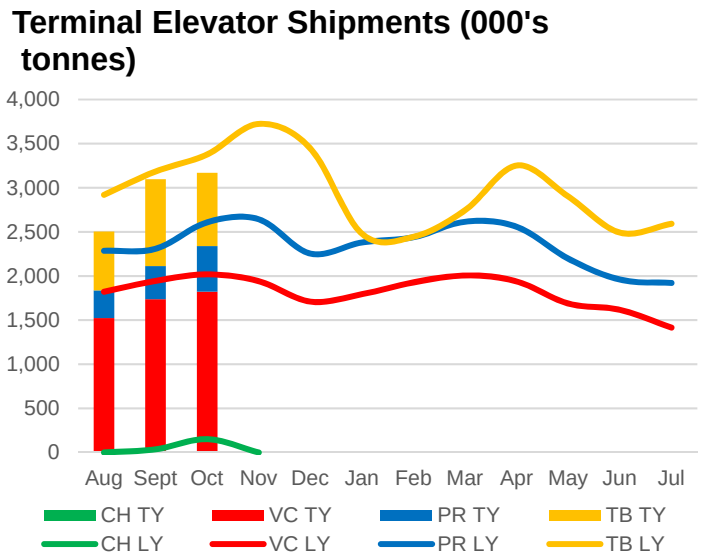
As harvest progress lagged, producer deliveries in October, declined, averaging over 0.9 MMT for the month. Primary elevator stock levels averaged 3.4 MMT, supporting increased shipment levels, despite some ongoing challenges matching grains and grades to sales programs due to grain quality issues resulting from persistent wet harvest conditions.

Table M-3	**OCT 2016**	**2016-17 YTD**	**Var. from Last YTD**
Primary Elevator Shipments (000's tonnes)			
Manitoba	719.2	2,206.9	14.5%
Saskatchewan	1,918.9	5,607.1	1.2%
Alberta	1,350.8	3,509.0	-3.2%
British Columbia	28.5	77.6	-33.0%
Total	**4,017.4**	**11,400.6**	**1.7%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	4,023.2	10,745.0	-0.7%
Shipments to Eastern Canada	314.6	663.2	12.1%
Shipments to US & Mexico	582.7	1,763.6	-0.9%
Shipments Western Domestic	44.7	130.9	2.3%
Total	**4,965.3**	**13,302.6**	**-0.1%**
Western Port Unloads (Number of Cars)			
Vancouver	20,066	57,952	-3.3%
Prince Rupert	6,116	14,764	-10.8%
Churchill	0	0	-100.0%
Thunder Bay	9,619	27,726	1.9%
Total	**35,801**	**100,442**	**-4.7%**
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,821.6	5,080.1	-9.2%
Prince Rupert	516.2	1,205.0	-14.9%
Churchill	0	0	n/a
Thunder Bay	831.4	2,483.6	9.0%
Total	**3,169.2**	**8,768.7**	**-7.5%**



GMP Data Table 2A-1

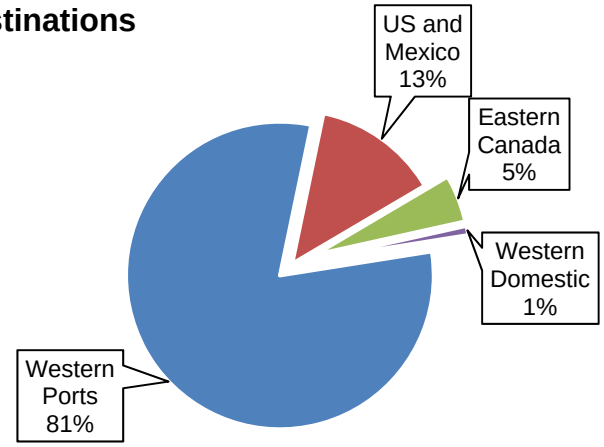
Grain shipments from primary elevators increased through October achieving a level 1.7% higher than the previous crop year. The movement was predominantly wheat, canola and peas. Peas comprised nearly 15.0% of the shipments, compared to only 6.0% for the whole of the previous crop year, which is a typical pattern as peas are marketed aggressively in the post-harvest period.



GMP Data Table 2C-1

Shipments out of the western ports declined in the first quarter of the crop year, registering a 7.5% 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

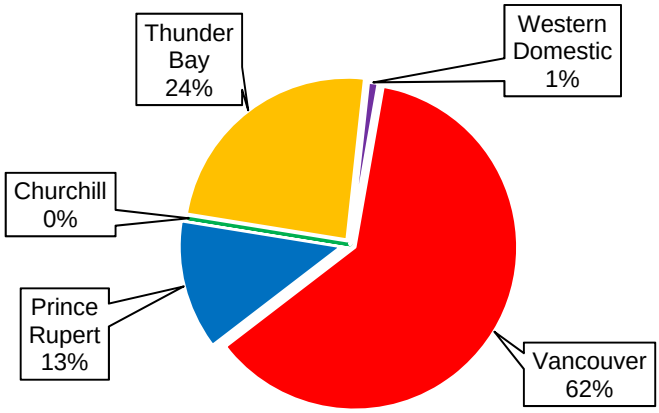


Total YTD = 13.3 MMT

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 quarter of the 2016-17 crop year amounted to 10.7 MMT, down 0.7% from that handled in the same period a year earlier. However, shipments into Eastern Canada jumped sharply in October, lifting the first-quarter's total by 12.1%. Over 95% of the volume directed to western ports is handled in covered hopper cars, with about two-thirds of this traffic moving to Vancouver. 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, hopper-car shipments rebounded sharply in September and October, which helped stem August losses. Year-to-date hopper-car shipments through October increased by 2.0% for Vancouver but fell by 1.2% for Thunder Bay and 9.4% for Prince Rupert.

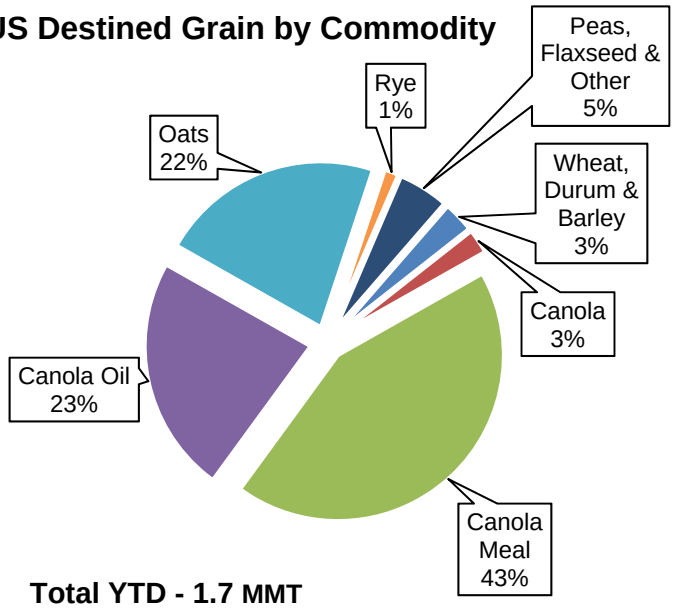
Western Canadian Destined Hopper Car Traffic



Total YTD - 10.5 MMT

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

US Destined Grain by Commodity



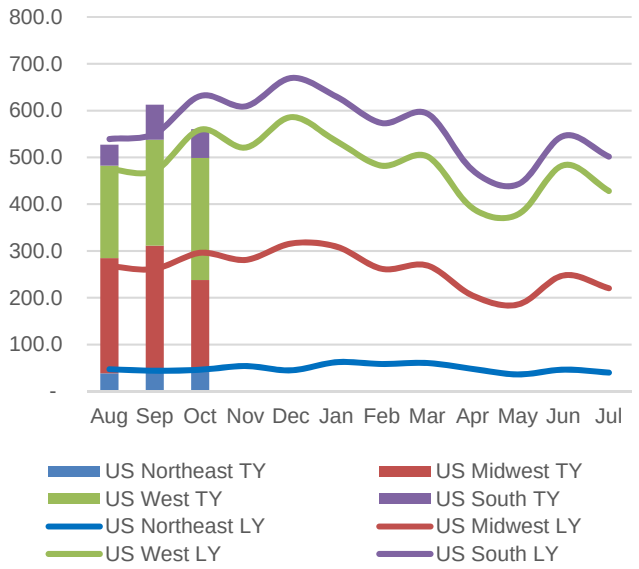
Total YTD - 1.7 MMT

GMP Data Table 2B-18

Rail shipments into the US, which totaled 1.7 MMT in the first quarter, decreased by 1.2% from that handled in the same period a year earlier. The movement is dominated by canola and canola products, which accounted for 69% of the total tonnage. Much of the US-bound traffic is directed into markets in the Midwest and West, with 50.2% of the tonnage sourced out of Saskatchewan.

Rail traffic from Western Canada to Mexico totaled 63,800 tonnes in the first quarter, an increase of 10.9% 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

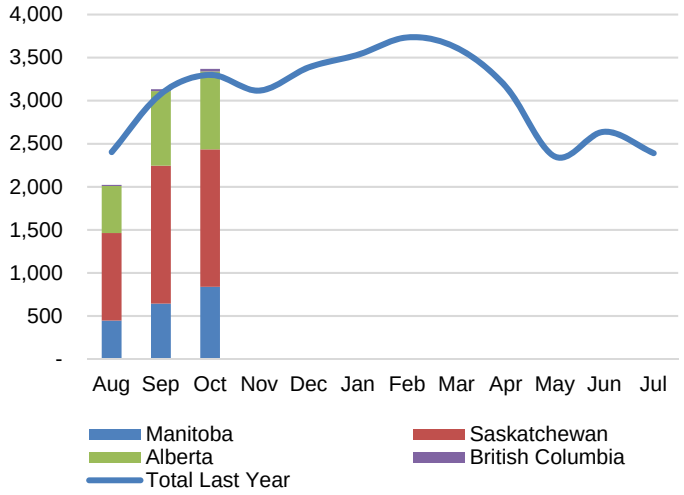
Primary elevator stocks climbed during October as the harvest continued with steady producer deliveries. The weekly average was 3.4 MMT, up from 3.1 MMT in September. Available delivery space in the country network was good throughout the period. Country elevator stocks utilized only 74% of the working capacity of the network. By province, stocks ranged from 67% of working capacity in Saskatchewan, to 76% in Alberta, 86% in Manitoba and 100% 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 9.2% from that experienced last year.

Table M-4	OCT 2016	2016-17 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	3,368.6	2,777.8	-5.5%
Average Days in Store	23.2	21.8	-9.2%
Railway Operations (days)			
Cycle Time to Western Ports	11.8	12.9	-4.5%
Cycle Time to Eastern Canada	16.9	20.3	-15.0%
Cycle Time to US	22.8	23.2	-11.2%
Loaded Transit to Western Ports	4.7	4.6	-6.0%
Loaded Transit to Eastern Canada	6.6	8.1	-19.1%
Loaded Transit to US	10.5	9.6	-10.9%
Traffic in 50-car+ blocks (Q4)	87.1%	87.1%	0.7%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,094.9	959.1	-20.2%
Average Days in Store	9.4	9.7	-17.8%
Port Unloads (hopper cars)	35,801	100,442	-4.7%
Terminal Out-of-Car Time	10.6%	14.3%	59.2%
Western Canada Port Operations			
Average Vessel Time in Port (days)	8.5	7.7	4.1%

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

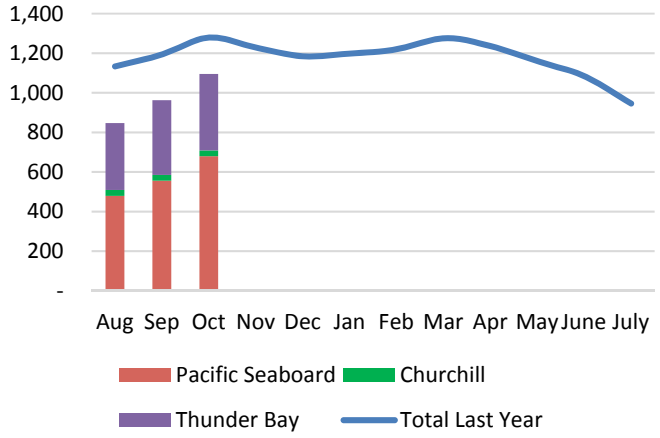
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Following a sharp decline to 2.0 MMT in August, average country elevator stocks reversed direction and climbed to nearly 3.4 MMT in October. Despite challenging harvest conditions, significant new crop deliveries replenished supplies as shipping increased to meet aggressive sales programs. Weekly deliveries averaged over 0.9 MMT throughout October.

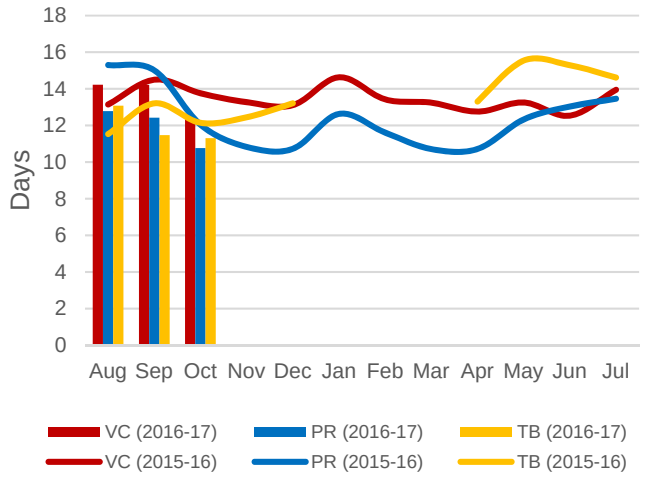
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

As with country elevator stocks, the average of 1.1 MMT in store at terminal elevators in October 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 63% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

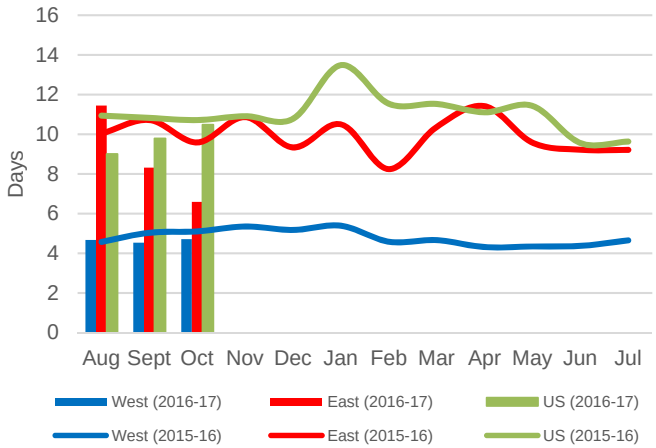


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 12.9 days through October 2016, a reduction of 4.5% from the 13.5-day average recorded in the same three-month period a year earlier. This reduction was largely shaped by a 14.7% decrease in the Prince-Rupert-corridor, which fell to an average of 11.8 days, and supported by a 3.8% decrease in that of the Thunder Bay corridor and a 1.4% reduction in that of the Vancouver corridor. (Note: The Churchill corridor is not factored into the average for Western Canada.)

Car cycles to Eastern Canada also decreased during this period, falling by 15.0%, to an average of 20.3 days from 23.9 days a year earlier. Similarly, the car cycle for movements into the United States declined by 11.2%, to an average of 23.2 days from the 26.1-day average posted in the same period of the previous crop year.

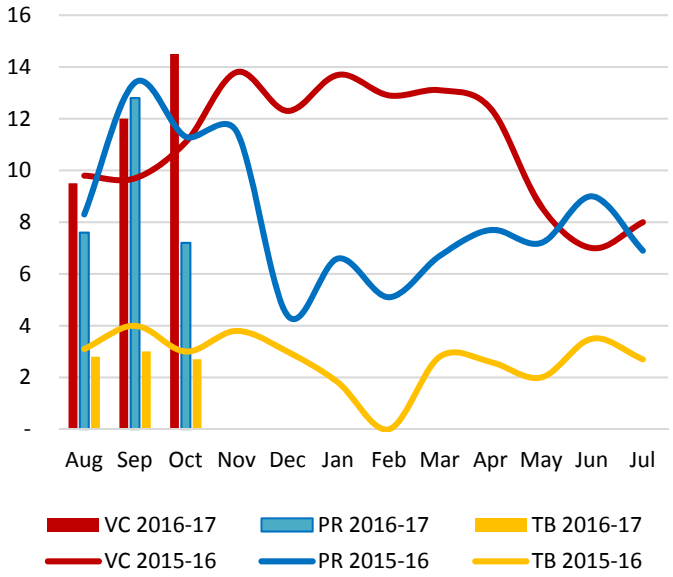
Average Loaded Transit Times (days)



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 quarter of the 2016-17 crop year, down 6.0% from the 4.9-day average posted a year earlier. This result was shaped by reductions in all three corridors: Vancouver, 3.1%; Prince Rupert, 17.4%; and Thunder Bay, 3.1%. The average loaded transit time for movements into Eastern Canada also declined, falling by 19.1%, to 8.1 days from 10.0 days the year previous. The corresponding average for US-destined traffic showed an equally substantive 10.9% reduction, falling to 9.6 days from the 10.8-day average posted twelve months earlier.

Average Days in Port per Vessel

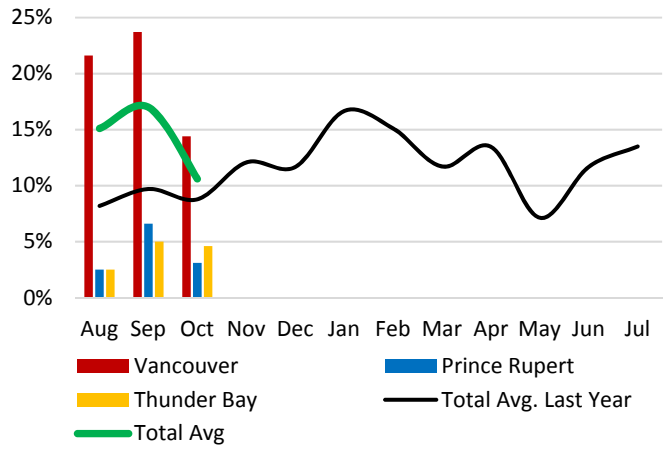


GMP Data Table 5D-1

For the first quarter of the 2016-17 crop year, the average time vessels were in port waiting and loading grain was 4.1% greater than in the same period of the previous year. The average for all ports was 8.5 days in October 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 from August through October 2016, reflect relatively smooth movement from country to port as the 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).

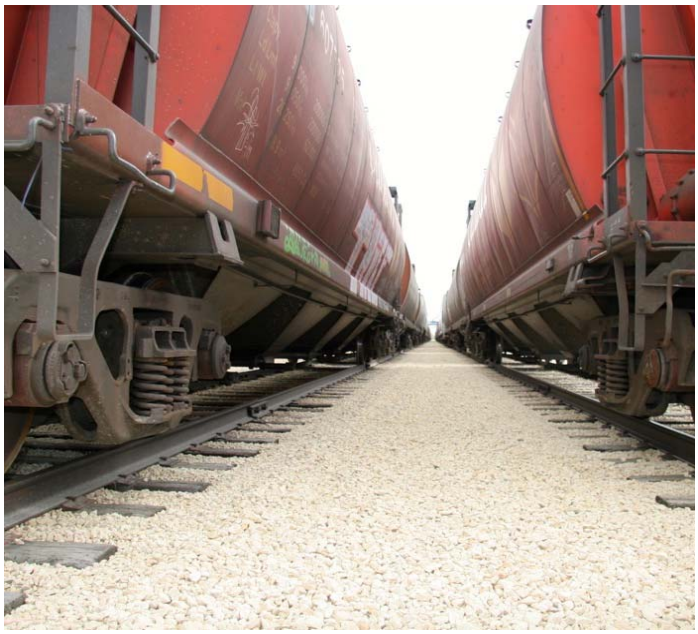
Notwithstanding some fluctuation, the percentage of time terminals are out of cars has charted a trend of improvement from its high of 29.8% in January of 2015. Following a modest uptick to 17.0% in September 2016, October's aggregate measure for all ports declined to 10.6%. All ports registered decreases from September, with terminals at Vancouver falling to 14.4%, Prince Rupert to 3.1% and Thunder Bay to 4.6% of their time being without railcars to unload.

Commercial Relations

Table M-5 **Rates: $CDN per tonne**	**Q1 2016-17**	**Index (1999=100)**	**% Change YTD**
Avg. Primary Elevation	$16.01	133.5	0.3%
Rail to Vancouver			
CN	$50.50	136.9	3.6%
CP	$52.34	140.9	4.0%
Rail to Pr. Rupert			
CN	$50.50	121.0	2.6%
Rail to Thunder Bay			
CN	$50.46	157.5	4.9%
CP	$44.98	151.0	3.9%
Average Terminal Elevation	$14.31	156.9	0.1%

Note: *Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the first quarter of the 2016-17 crop years. Rail rates are as at October 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).*

Single-car freight rates moved generally higher at the beginning of October 2016, with across-the-board escalations of 5.0% made by CN and 4.0% by CP. This followed the limited reductions initially made by CN at the beginning of the 2016-17 crop year, which amounted to 1.4% and 2.3% in its Vancouver and Prince Rupert corridors respectively. As a result, the overall rates in place at the close of the first quarter proved about 3.8% higher on westbound movements into Vancouver, and about 4.4% higher on eastbound movements into Thunder Bay. These pricing actions fell somewhat 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.



Infrastructure

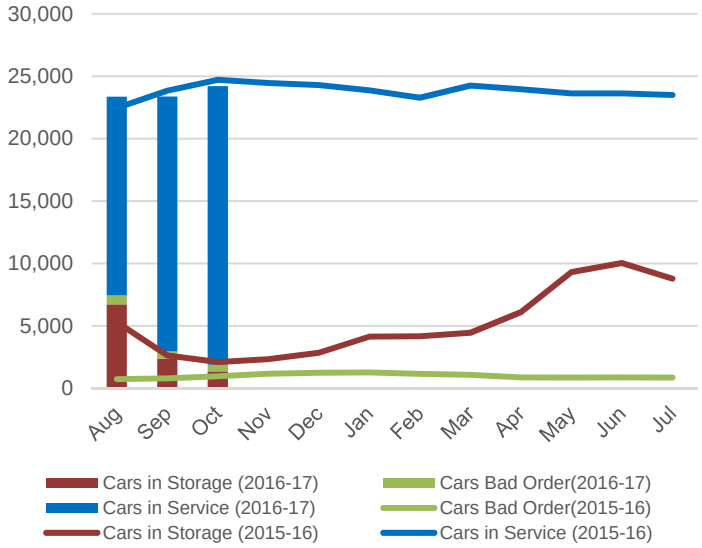
The GMP monitors infrastructure changes on a quarterly basis with the exception of the railway car fleet. Only modest changes were noted to the GHTS's infrastructure in the first three months of the 2016-17 crop year. Chief among these was a 0.3% reduction in the total number of country elevators, which 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. The first quarter also saw the establishment of the first modern shortline in southern Alberta, Forty Mile Rail. The new carrier resurrected operations along a 45.7-route-mile section of CP's former Stirling Subdivision, which had lain dormant since 2006. Along with this came CN's decision to abandon the last remaining 12.0-route-mile section of its Athabasca Subdivision (aka Athabasca spur). 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	Q1 2016-17	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	382	38.0	-0.3%
Storage Capacity (000's tonnes)	7,952.1	113.2	1.4%
Railway			
Route Miles - Major Carriers	14,606.5	98.5	-0.4%
Route Miles - Shortline Carriers	2,6669.6	57.5	1.7%
Route Miles - Total	**17,276.1**	**88.7**	**-0.1%**
Average Weekly Total Hopper Car Fleet Size*	24,207	n/a	-0.3%
Terminal Elevator			
Terminal Facilities (Count)	15	107.1	0.0%
Storage Capacity (000's tonnes)	2,475.0	96.8	3.4%

** Hopper Car Fleet Size represents all cars in all statuses for the month of October 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. As harvest progressed and sales of the new crop advanced, the weekly average of cars in service climbed, reaching 22,323 in October, and now encompassing 92% of the overall fleet. The balance of the fleet, comprising 8% 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



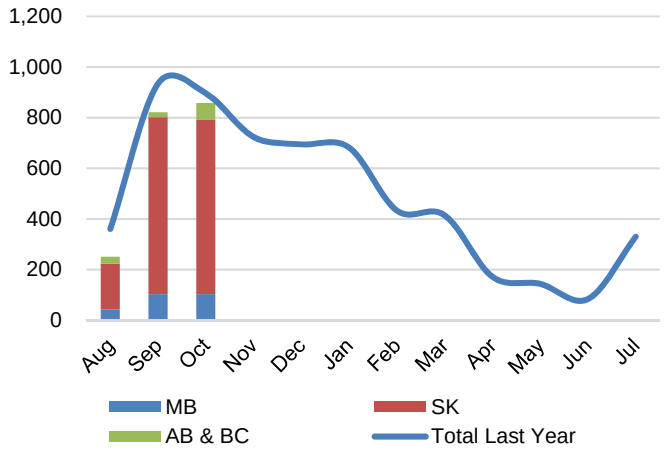
GMP Data Table 3B-2

Producer Cars

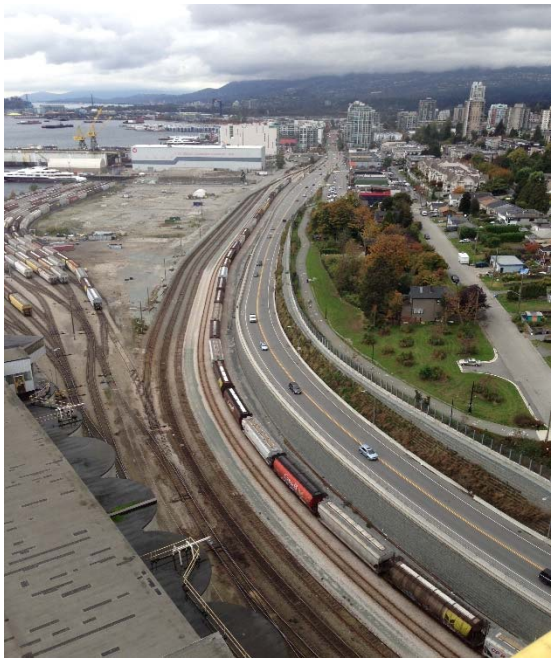
In September, CP de-listed a total of 22 producer car loading sites. This was comprised of three sites in Manitoba, four in Alberta and 15 in Saskatchewan. At the same time, CP added two loading sites to their Saskatchewan list. The net reduction is 20 Class 1 Carrier sites. The total number of available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

Table M-7 **Producer Car Loading Sites**	Q1 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



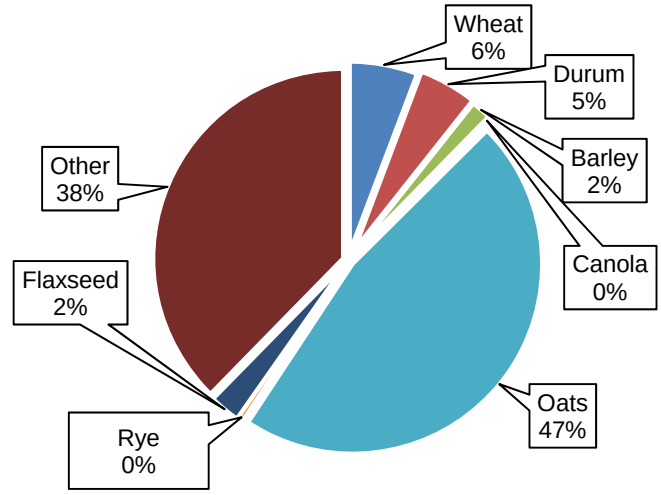
Vancouver North Shore, Low Level Road realignment and track expansion (Quorum, October 2016)

Table M-8 **Producer Cars Scheduled**	OCT 2016	2016-17 YTD	Var. from Last YTD
Manitoba	103	248	-35.4%
Saskatchewan	690	1,570	-6.3%
Alberta & B.C.	65	112	-15.8%
Total	**858**	**1,930**	**-12.0%**

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 quarter of the crop year continue to reflect this trend, with the traditional commodities comprising only 58% of the total. The balance consists primarily of peas and special crops.

Producer cars scheduled in the first three months of the crop year were down 12.0% from the previous year. Delays in harvesting the 2016 crop contributed to a reduction of over 20.0% in producer car applications received during this period.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2

Richardson Terminal, Vancouver North Shore (Quorum, October 2016)

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