

GMP Dashboard

Table M-1	AUG 2016	2016-17 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)			
Total Time in System	35.7	35.7	-4.0%
Average Days In Store – Country	19.9	19.9	-10.0%
Loaded Transit Time	4.6	4.6	0.5%
Average Days In Store – Terminal	11.2	11.2	6.7%
Total Traffic ('000 tonnes)			
Primary Elevator Shipments	3,481.6	3,481.6	8.7%
Railway Shipments (all Western Canada traffic)	3,509.0	3,509.0	-9.4%
Western Port Terminal Shipments	2,503.7	2,503.7	-14.2%
Railway Performance			
Avg. Loads on Wheels (Cars)	7,589	7,589	-9.4%
Total Western Port Car Cycle (days)	13.1	13.1	-0.6%
Port Performance			
Western Port Unloads (Number of Cars)			
Vancouver	18,668	18,668	8.3%
Prince Rupert	4,245	4,245	-16.3%
Churchill	0	0	-100.0%
Thunder Bay	8,146	8,146	16.7%
Total	31,059	31,059	4.8%
Vessel Time in Port (days)	6.8	6.8	-4.2%

- Order fulfillment measures have been removed from this table as comparative data is unavailable at this time.
 - 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

Weather and crop conditions are keenly observed and analyzed as every summer progresses, 2016 being no exception. Early seeding and plentiful rainfall encouraged optimistic projections for an early and bountiful harvest. But, as August 2016 advanced and the rainfall continued, farmers' attempts to take the crops off the fields were thwarted. Concerns grew, that although there would likely still be a large crop, continuing wet weather would adversely affect its condition and quality as well as the timing of new-crop availability to meet sales programs. Demand, as is reflected in the line-up of

vessels at ports began to grow. Total Western Canadian originated rail movements in August exemplified this issue, falling by 9.4% year-over-year as a result. Port shipments were 14.2% lower than in August of last year.

Port shipments for August totaled 2.5 MMT, a 3.4% decline from the previous month. Accompanying this shift in workload, is a 6.8-day average for the amount of time vessels spent in port, noticeably higher than July's 5.8-day average.

As August was drawing to a close, primary elevator deliveries of new crop commodities started to climb. GHTS participants indicated a ready willingness to handle the anticipated demand.

Highlights for August 2016

Traffic and Movement (page 2)

- Primary-elevator shipments reached 3.5 MMT in August, 8.7% greater than shipments in the same period last year.
- Total rail shipments (including primary/process elevators & producer cars) to all destinations from Western Canada reached 3.5 MMT, down 9.4% from that handled in the same month 12 months earlier.
- Grain shipments from Western Canadian ports totaled 2.5 MMT in August, down 14.2% from the same period last year.

System Efficiency and Performance (page 4)

- The year-over-year average for weekly stocks in the country fell by 15.9% in August, while the average days-in-store fell only 10.0%.
- Average weekly port-terminal stocks decreased 25.3% from August last year, while average days-in-store grew by 6.7%.
- Railcar cycle times for August averaged 13.1 days to western ports; 24.1 days to eastern Canada; and 22.0 days to US destinations.
- The year-to-date average for vessel-time-in-port is 6.8 days, a 4.2% reduction from that observed in August 2015.
- August port-terminal out-of-car time grew to 21.6% in Vancouver, and fell to 2.5% in both Prince Rupert and Thunder Bay.

Commercial Relations (page 6)

- Average primary-elevation charges declined 0.3% in the first month of the new crop year.
- Most single-car freight rates remained unchanged through August 2016. The exceptions were posted by CN, which reduced its westbound rates into Vancouver and Prince Rupert by an average of 1.4% and 2.3% respectively. These pricing actions came on the heels of a crop year in which the collective rates posted by CN and CP in the primary Vancouver and Thunder Bay corridors had already been reduced, by up to 7% and 4% respectively.
- Average terminal-elevation rates held steady through August.

Infrastructure (page 7)

- August saw the GHTS's country-elevator network reduced by one, falling to 382 from 383. However, ongoing expansion efforts served to lift 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% in August, to almost 2.5 MMT from the 2.4 MMT in place at the close of July.

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. If this estimate is sustained, the 2016 crop will be the second largest on record.

Coupled with carry-forward stock of 7.3 MMT, 19.8% less than in 2015, the overall grain supply will grow to an estimated 75.0 MMT, some 3.3% greater than that of the previous year.

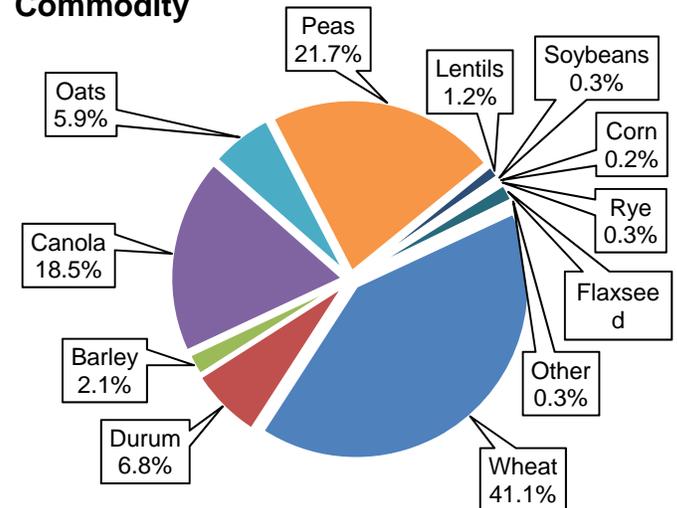
Production & Carry Over (000's tonnes) Table M-2	2016	2015	Var. from Last Year
Western Canada Total Production - Preliminary	67,617.2	63,425.7	6.6%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,343.9	9,162.6	-19.8%
Total Grain Supply	74,961.1	72,588.3	3.3%

Traffic and Movement

Producer deliveries were light in early August and, although they built up throughout the month, only averaged 750,000 tonnes per week. Primary elevator stock levels grew during the month, allowing increased shipments, but accessing the right grains and grades to meet sales programs presented challenges due to excessive rains and the delayed harvest.

Table M-3	AUG 2016	2016-17 YTD	Var. from Last YTD
Primary Elevator Shipments (000's tonnes)			
Manitoba	696.3	696.3	23.6%
Saskatchewan	1,701.2	1,701.2	16.1%
Alberta	1,062.6	1,062.6	-7.4%
British Columbia	21.5	21.5	-23.5%
Total	3,481.6	3,481.6	8.7%
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	2,797.2	2,797.2	-10.5%
Shipments to Eastern Canada	122.7	122.7	-8.3%
Shipments to US & Mexico	545.6	545.6	-2.2%
Shipments Western Domestic	43.4	43.4	9.6%
Total	3,509.0	3,509.0	-9.4%
Western Port Unloads (Number of Cars)			
Vancouver	18,668	18,668	8.3%
Prince Rupert	4,245	4,245	-16.3%
Churchill	0	0	-100.0%
Thunder Bay	8,146	8,146	16.7%
Total	31,059	31,059	4.8%
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,523.1	1,523.1	-16.4%
Prince Rupert	312.8	312.8	-32.8%
Churchill	0	0	n/a
Thunder Bay	667.8	667.8	5.3%
Total	2,503.7	2,503.7	-14.2%

Primary Elevator Shipments by Commodity

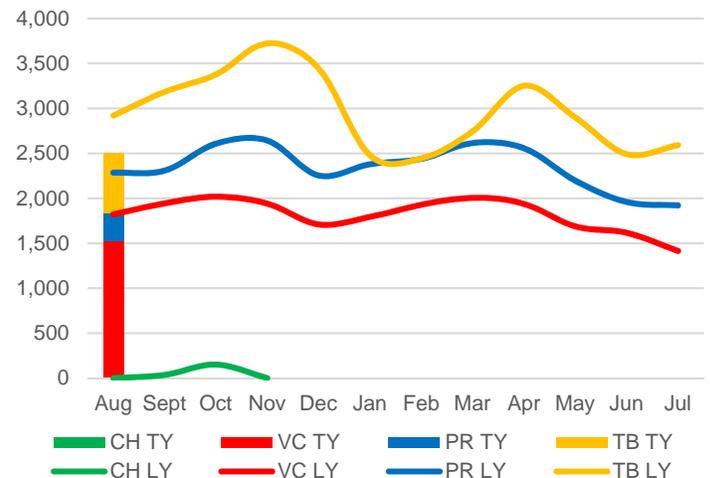


Total YTD = 3.5 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators increased through August achieving levels similar to the previous crop year. The movement was predominantly wheat, canola and peas. Peas comprised nearly 22.0% of the August 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.

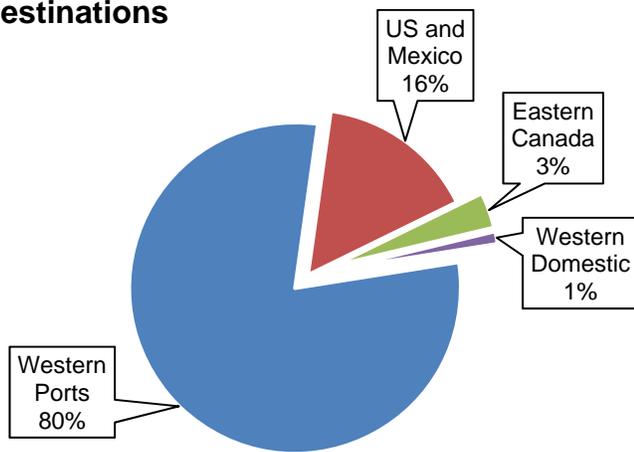
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Shipments out of the western ports declined in August, registering a 14.2% decrease on a year-over-year basis. The challenges in matching supply with the waiting vessel nominations was compounded by quality concerns as the harvest across the prairies was further delayed by wet weather. For the second year in a row, there were no shipments from the Port of Churchill during August. While a smaller program eventually emerged last crop year, the 2016 season will not see any shipments as the port's US-based owner, OmniTRAX, closed the grain terminal for the season.

Western Canadian Grain Destinations

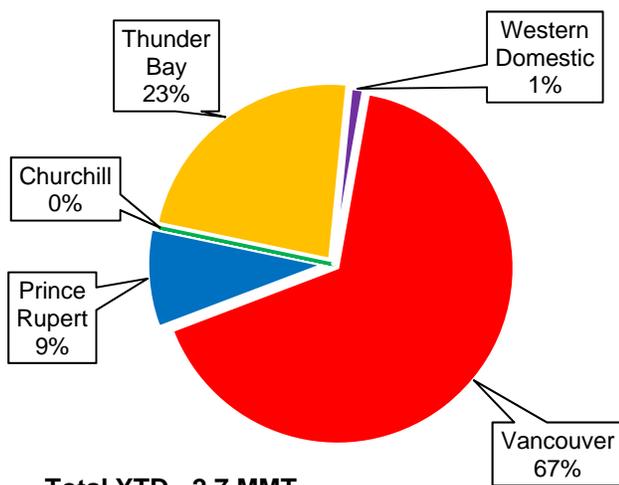


Total YTD = 3.5 MMT

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

About 80% 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 August 2016 amounted to 2.8 MMT, down 10.5% from that handled in the same month a year earlier. Over 95% of this volume is handled in covered hopper cars, with Vancouver accounting for over two-thirds of this tonnage. Year-round operations, favourable logistical economics and better access to major Asia-Pacific markets combine to favour this gateway over all others. Hopper-car shipments into Vancouver for August fell by 4.2% compared to that of the same month a year earlier. An even more significant decline was posted by Prince Rupert, which saw its shipments fall by 43.6%. These drops were enlarged by reductions of 13.2% at Thunder Bay and 100.0% at Churchill. Shipments into Eastern Canada also declined significantly in August, falling by 18.3%.

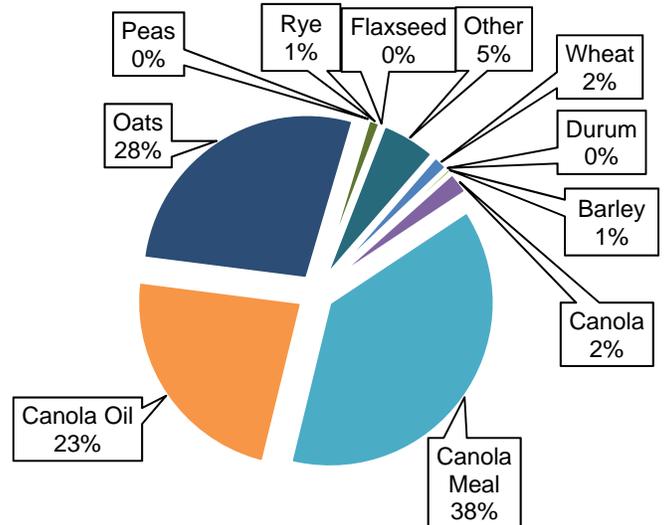
Western Canadian Destined Hopper Car Traffic



Total YTD - 2.7 MMT

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

US Destined Grain by Commodity



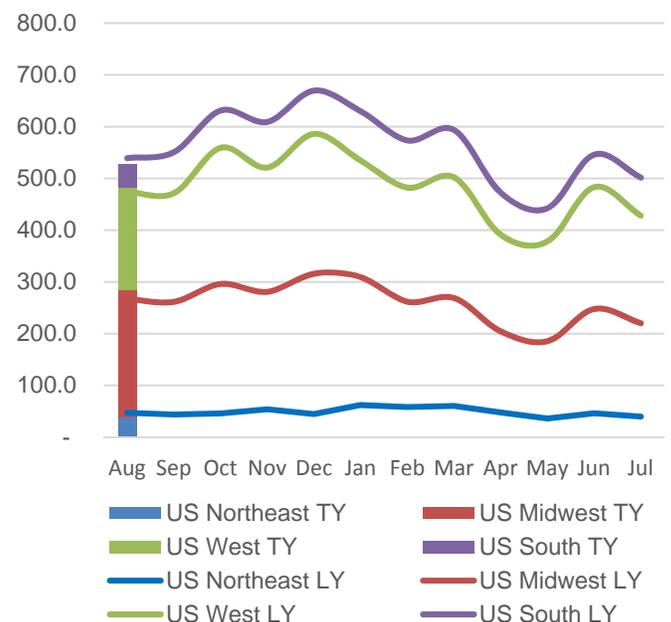
Total YTD - 0.5 MMT

GMP Data Table 2B-18

Rail shipments into the US, which totaled 527,100 tonnes in August 2016, declined by a more modest 2.2% from that handled in the same month a year earlier. The movement is dominated by canola and canola products, which accounted for 63% of the total tonnage. The majority of the US-bound traffic is directed into the American Midwest and West, with 48.9% being sourced out of Saskatchewan.

Rail traffic from Western Canada to Mexico totaled 18,600 tonnes in August, down a marginal 0.2% from that reported in the same month a year earlier.

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



GMP Data Table 2B-18



System Efficiency and Performance

Primary elevator stocks continued to shrink during August as the new crop year began. The weekly average was 2.0 MMT, down from 2.4 MMT in July. Available delivery space in the country network was good throughout the period. Country elevators utilized only 44% of the working capacity of the network. By province, stocks ranged from 43% of working capacity in Saskatchewan, to 46% in Manitoba, Alberta and British Columbia.

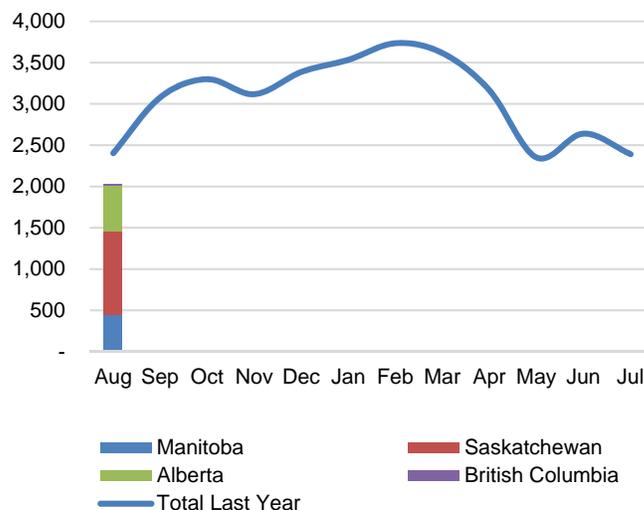
Year-over-year average days-in-store in the primary-elevator system for August shows a sharp decline from past performance, falling by 10.0% from that experienced last year.

Table M-4	AUG 2016	2016-17 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	2,021.4	2,021.4	-15.9%
Average Days in Store	19.9	19.9	-10.0%
Railway Operations (days)			
Cycle Time to Western Ports	13.1	13.1	-0.6%
Cycle Time to Eastern Canada	24.1	24.1	8.7%
Cycle Time to US	22.0	22.0	-14.2%
Loaded Transit to Western Ports	4.6	4.6	0.5%
Loaded Transit to Eastern Canada	11.6	11.6	15.8%
Loaded Transit to US	8.4	8.4	-23.4%
Traffic in 50-car+ blocks (Q4)	86.8%	85.7%	1.2%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	846.8	846.8	-25.3%
Average Days in Store	11.2	11.2	6.7%
Port Unloads (hopper cars)	31,059	31,059	4.8%
Terminal Out-of-Car Time	15.1%	15.1%	84.7%
Western Canada Port Operations			
Average Vessel Time in Port (days)	6.8	6.8	-4.2%

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



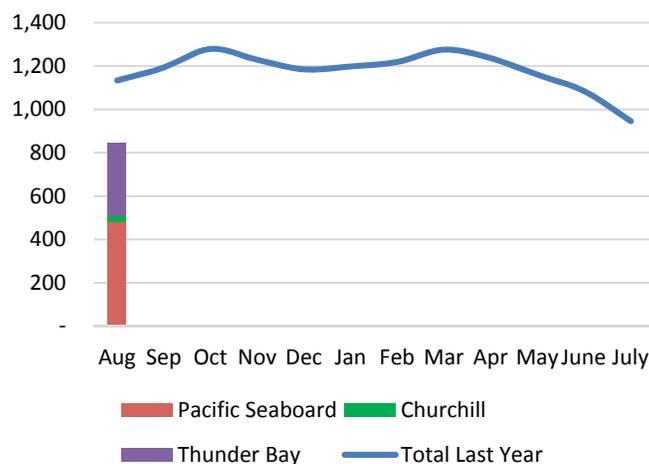
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary-elevator stocks have declined significantly from the recent high of 3.7 MMT seen in February. In August, as the 2016-17 crop year began, the average fell to 2.0 MMT, lower than at any time during the previous crop year. Weekly deliveries averaged just over 750,000 tonnes throughout August. Producers and shippers anxiously awaited better weather and harvest conditions that would allow supplies to be replenished.

Average Weekly Terminal Elevator Stocks (000's tonnes)

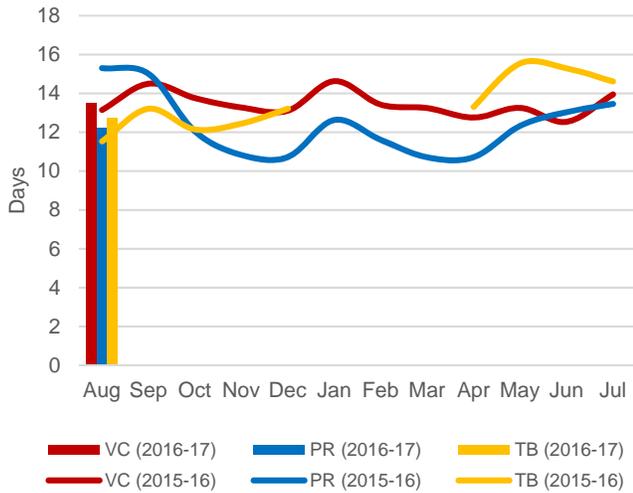


GMP Data Table 5C-2

As with country elevator stocks, the average of just over 0.8 MMT in store at terminal elevators in August is lower than at any time during the previous crop year. Terminal stock levels have 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 out arriving grain. Port operators also eagerly anticipate harvest progressing in order to safeguard

supplies of grain to match sales programs. Currently western ports are utilizing just 49% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

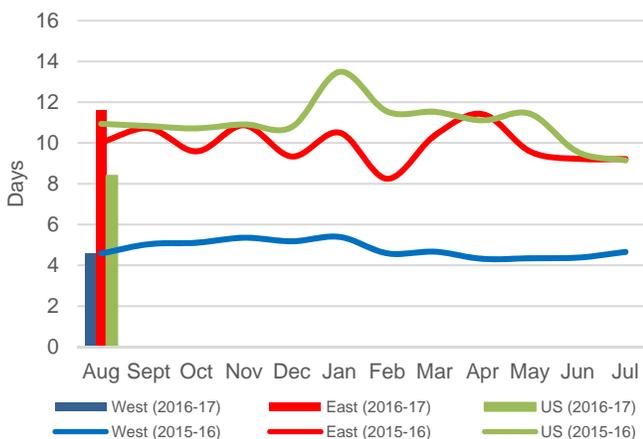


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 13.1 days in August 2016, a marginal decrease of 0.6% from the near identical average recorded a year earlier. This reduction was shaped by a 20.1% decrease in the Prince-Rupert-corridor average, which fell to 12.2 days. However, this reduction was tempered by a 2.9% increase in the Vancouver-corridor average along with an even sharper 10.4% increase in the average for the Thunder Bay. (Note: The Churchill average is not factored into that of Western Canada as a whole.)

Car cycles to Eastern Canada also increased in August 2016, rising by 8.7%, to an average of 24.1 days from 22.1 days a year earlier. Running counter to this was the car cycle for movements into the United States, which declined by 14.2%, to an average of 22.0 days from the 25.7-day average posted in the same month of the previous crop year.

Average Loaded Transit Times (days)

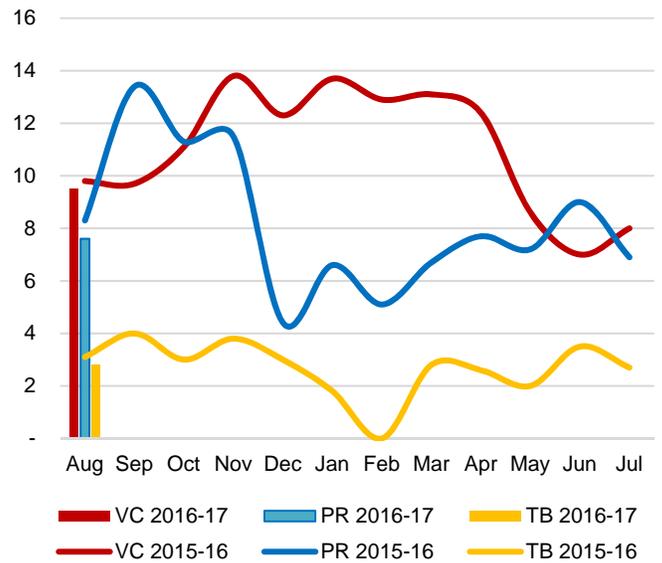


GMP Data Tables 5B-4, 5B-8, 5B-12

Loaded transit time for traffic destined to Western Canadian ports averaged 4.6 days in August 2016, up by a marginal 0.5% from the near identical average posted a year earlier. This result was mainly driven by increases in both the Vancouver and Thunder Bay corridors, which rose by 6.6% and 8.3% respectively, but which were also largely offset by a 22.9% reduction in the Prince-Rupert-corridor average.

The average loaded transit time for movements into Eastern Canada also rose sharply in August, increasing by 15.8%, to 11.6 days from 10.0 days the year previous. The corresponding average for US-destined traffic showed a substantive 23.4% reduction, falling to 8.4 days from the 10.9-day average posted twelve months earlier.

Average Days in Port per Vessel



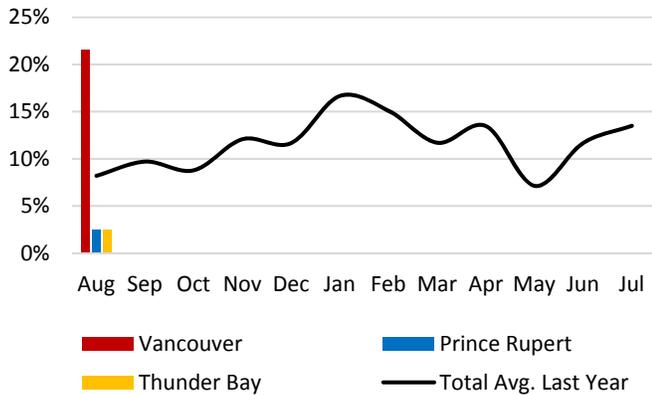
GMP Data Table 5D-1

In the first month of the 2016-17 crop year, the average time vessels were in port waiting and loading grain was 4.2% less than in August 2015. The average for all ports was 6.8 days in August 2016, higher than the 5.8 to 6.0 day averages registered in the last quarter of the 2015-16 crop year. Delays in harvest and challenges matching grain and grade arrivals to the sales programs represented by waiting vessels contributed to this upturn.

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 2016, reflect a continued smooth movement from country to port as the new crop year gets underway.



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. A modest uptick is registered for August 2016, as the aggregate measure for all ports increased to 15.1% from 13.5% in July. While Vancouver registered an increase from July, climbing to 21.6%, Prince Rupert and Thunder Bay saw decreases, both to 2.5% of the time being without railcars to unload.

Commercial Relations

In comparison to the single-car freight rate reductions posted in the 2015-16 crop year, initial railway pricing actions in August 2016 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. The carrier's eastbound rates into Thunder Bay and Churchill remained effectively unchanged. For its part, CP chose to extend its existing rates in both the Vancouver and Thunder Bay corridors. These pricing actions fell well short of the potential rise suggested as a result of the 4.8% escalation in the VRCPI, which was determined by the Canadian Transportation Agency in April 2016.

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 refer 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).

Commercial Developments

Richardson announces upgrades to Lethbridge canola plant:

On 17 August 2016 Richardson International Ltd. announced the investment of \$120 million to upgrade and modernize their canola processing facility at Lethbridge, Alberta. The upgrade will increase the annual crush capacity of the plant from its present 450,000 tonnes to 700,000 tonnes. The modernization will include a high-throughput seed-receiving facility scheduled to be ready for the fall of 2017, and which will allow quicker and more efficient seed deliveries. When complete, the plant will be able to receive 800 tonnes of canola per hour and process 2,000 tonnes per day.

Deadline for tighter Chinese canola dockage rule looms:

Since 2009, Chinese concerns over the potential introduction of a virulent strain of blackleg has cast a pall over Canadian canola exports to China. The Chinese contend that the risk posed by blackleg, a fungal disease that can cause significant yield loss in susceptible varieties of canola, is elevated by the chaff or dockage that accompanies canola shipments. Despite an earlier agreement to adopt science-based standards, the General Administration of Quality Supervision, Inspection and Quarantine – China's quality watchdog – moved to impose a 1% dockage limit on Canadian canola imports as of 1 April 2016. Amidst claims by the Canadian industry that this new standard was not achievable, and that no evidence existed to support a reduction from the current 2.5% level, the deadline was pushed back to 1 September 2016. China is Canada's top foreign customer for canola seed, and imported more than four million tonnes – valued at \$2 billion – during the 2015-16 crop year. There was considerable relief when the governments of Canada and China announced in September that the pending September 1 deadline would be deferred as both parties worked towards a more permanent solution.

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 August 2016. 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. August also saw the loss of another 12.0 route-miles of railway infrastructure 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.

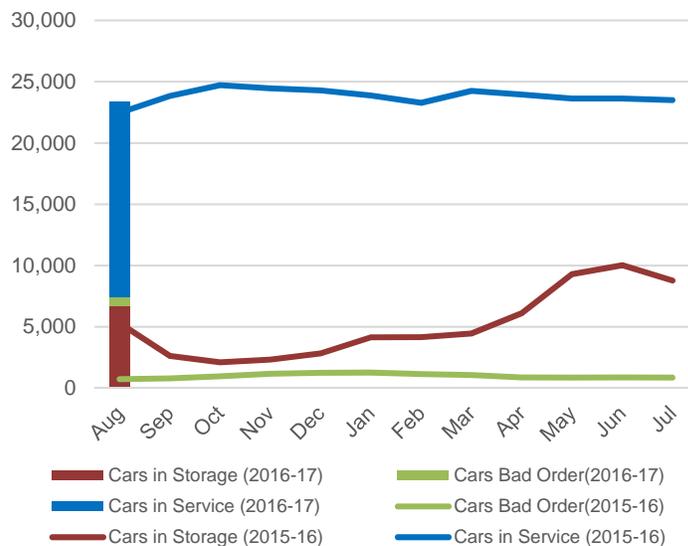
Table M-6	Q4 2015-16	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	383	38.1	3.5%
Storage Capacity (000's tonnes)	7,844.6	111.6	7.0%
Railway			
Route Miles - Major Carriers	14,664.2	98.9	-1.2%
Route Miles - Shortline Carriers	2,623.9	56.5	1.4%
Route Miles - Total	17,288.1	88.8	-0.8%
Average Weekly Total Hopper Car Fleet Size*	23,350	n/a	4.0%
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 August 2016.

During times of heavy demand for grain hopper cars, nearly all of the reported car fleet is called into service. As traffic volumes slow, railways begin the process of moving cars into storage as seen in the later months of the 2015-16 crop year due to a tapering off in demand. In June 2016 only 58% of the fleet was in active service, the smallest proportion seen during the crop year. The cars in active service rebounded marginally during July, climbing to 14,724. That number again grew to 15,916 during August, representing 68% 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 32% of the rail cars, is in storage or repair status (bad order), a decline from 37% in July.



Railway Grain Fleet Size and Utilization



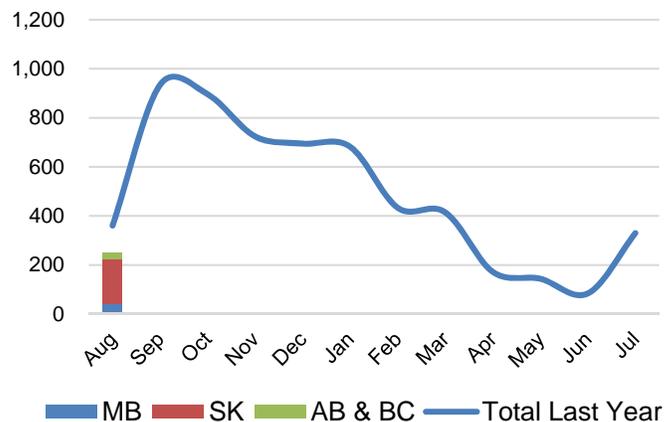
GMP Data Table 3B-2

Producer Cars

Although CP has recently posted notice of the railway's intent to close a number of producer-car loading sites in local newspapers, as of the end of August no changes were noted in the list published on their website. The total number of available producer car loading locations remains at 316.

Table M-7 Producer Car Loading Sites	AUG 2016	Index (1999=100)	% Change YTD
Class 1 Carriers	179	27.8	0.0%
Shortline Carriers	137	210.8	0.0%
All Carriers	316	44.6	0.0%

Producer Cars Scheduled by Province



GMP Data Table 6B-2

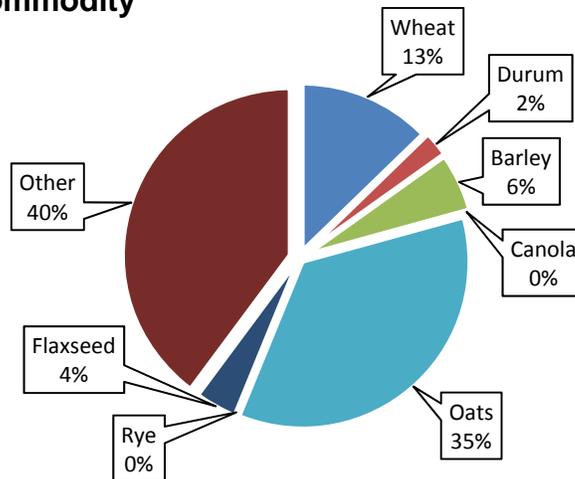


Table M-8 Producer Cars Scheduled	AUG 2016	2016-17 YTD	Var. from Last YTD
Manitoba	42	42	0.0%
Saskatchewan	181	181	-33.7%
Alberta & B.C.	28	28	-39.1%
Total	251	251	-30.5%

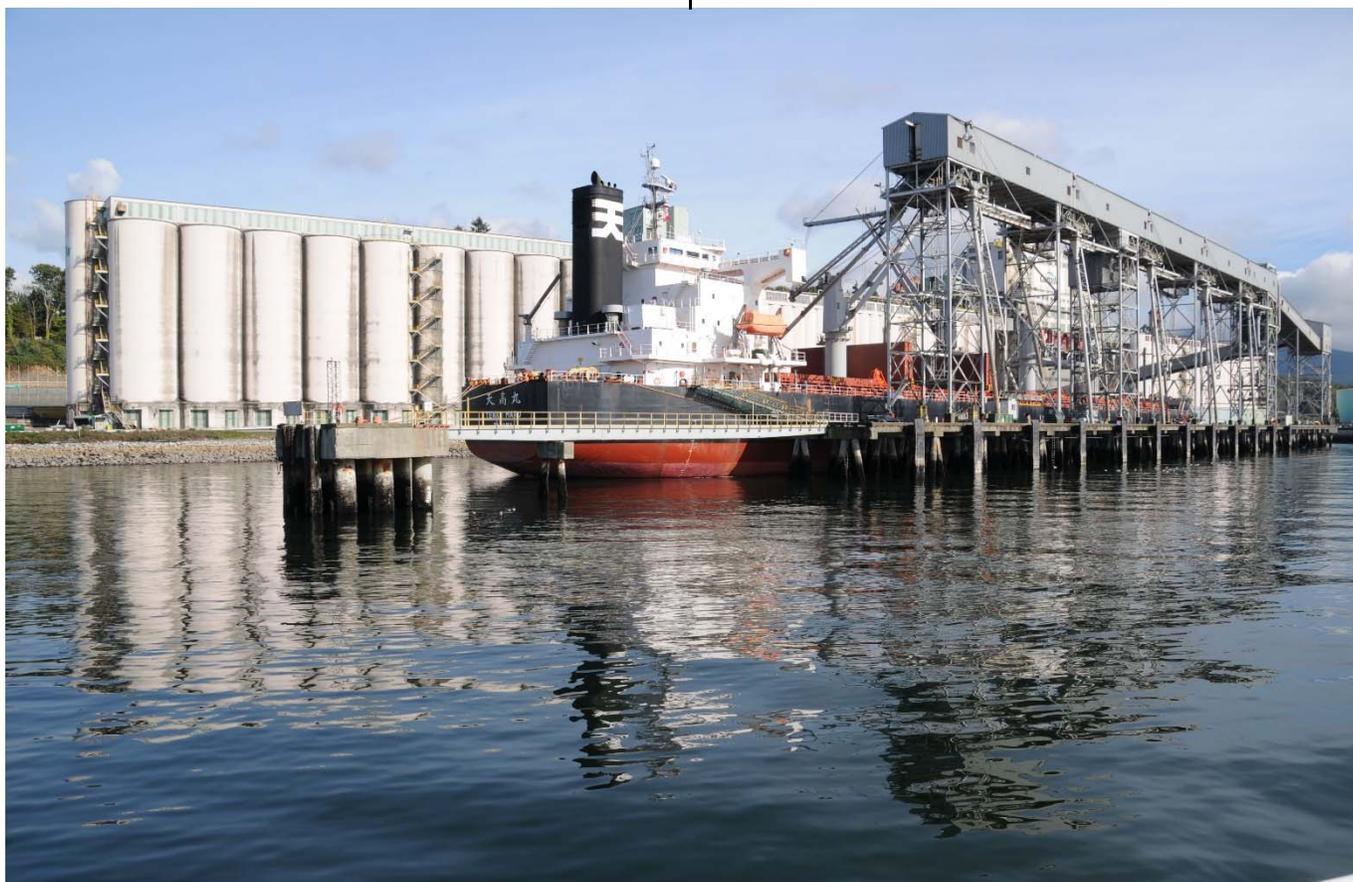
Producer car shipments have evolved from primarily being wheat, durum and oats to including significant numbers of cars carrying special crops. Shipments in the first month of the crop year continue to reflect this erosion, with the traditional commodities comprising only 50% of the total. The balance consists primarily of peas and special crops.

Producer cars scheduled in the first month of the crop year were down 30.5% from the previous year. Delays in harvesting the 2016 crop contributed to a reduction of over 15.0% in producer car applications submitted during August.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2



Vessel Loading at Cascadia Terminal, Vancouver



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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