Grain Monitoring Program Report for: December 2016

Release Date: February 1, 2016

GMP Dashboard

Table M-1	DEC 2016	2016-17 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)			
Total Time in System	41.4	38.0	-4.0%
Average Days In Store – Country	27.0	23.1	-2.5%
Loaded Transit Time	5.4	5.0	-1.7%
Average Days In Store – Terminal	9.0	9.9	-8.3%
Total Traffic ('000 tonnes)			
Primary Elevator Shipments	3,369.1	19,740.6	-0.7%
Railway Shipments (all Western Canada traffic)	4,351.8	22,227.9	-1.5%
Western Port Terminal Shipments	3,437.7	16,013.8	-3.8%
Railway Performance			
Avg. Loads on Wheels (Cars)	11,715	10,602	-2.0%
Total Western Port Car Cycle (days)	13.5	13.1	-0.2%
Port Performance			
Western Port Unloads (Number of Cars)			
Vancouver	16,189	98,900	-1.8%
Prince Rupert	4,721	27,124	-7.5%
Churchill	0	0	-100.0%
Thunder Bay	7,884	47, 887	-0.4%
Total	28,794	173,911	-3.3%
Vessel Time in Port (days)	10.2	9.1	21.3%

- *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 conditions, including snowfall in the western prairies, challenged producers and by extension the entire GHTS throughout the harvest. 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. An unseasonably warm period in early November allowed a continuation of harvest activity. While much of the outstanding grain in Saskatchewan was brought in, many Alberta producers, especially in the northern regions, remained unable to complete their harvest.

Total Western Canadian originated rail movements were 4.2% lower than in the previous December, or 1.5% compared to last year. Western port shipments for December totaled 3.4 MMT, a 4.0% decrease from the previous month and 0.2% lower than December of last year. The average amount of vessel time in port in December was 10.2-days, slightly lower than November's 11.4-day average.

Highlights for December 2016

Traffic and Movement (page 2)

- Primary-elevator shipments were 19.7 MMT in the first five months of the 2016-17 crop year, 0.7% less than last year.
- Total rail shipments (including primary/process elevators & producer cars) to all destinations from Western Canada reached 22.2 MMT, down 1.5% from that handled in the same five-month period a year earlier.
- Crop year-to-date shipments from Western Canadian ports totaled 16.0 MMT, a decrease of 3.8% from the same period last year.

System Efficiency and Performance (page 4)

- Average weekly stocks in the country decreased by 1.8% from last year-to-date, while the average days-in-store was reduced by 2.5%.
- Average weekly port-terminal stocks decreased 12.1% from the same period last year, and average days-in-store also fell by 8.3%.
- Railcar cycle times through December averaged 13.1 days to western ports, matching the same period last year; 19.1 days to eastern Canada 17.4% lower than last year; and 23.2 days to US destinations, 10.2% lower than last year.
- The year-to-date average for vessel time in port is 9.1 days, a 21.3% increase from that observed in the previous crop year.
- December port-terminal out-of-car time in Vancouver was 21.2%, up from 15.1% a year ago, 4.6% in Thunder Bay from 2.0% a year ago and 4.4% in Prince Rupert, up from 1.8% last year.

Commercial Relations (page 6)

- Average primary-elevation charges increased 0.8% in the first five months of the crop year compared to last year.
- CN initiated a 5.0% increase to its single-car freight rates in December 2016, while CP's rates remained unchanged. This resulted in net increases ranging from 4% to 10% by the close of the period.

Infrastructure (page 6)

- The GHTS's country-elevator network saw a net increase of six facilities in the first five months of the crop year, rising to 389 from 383, due largely to the licensing of several previously unlicensed facilities now operated by AGT Food and Ingredients. This, along with other expansion efforts lifted the system's overall licensed storage capacity to almost 8.0 MMT from 7.8 MMT.
- The relicensing of the MobilEx Terminal in Thunder Bay saw the number of terminal elevators increase to 16 from 15. This, coupled with the 81,700-tonne expansion of the Richardson International terminal in Vancouver, resulted in the GHTS's total terminal storage capacity increasing by 3.8%, 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 estimate from Statistics Canada's November survey for 2016 crop production in Western Canada stands at 71.3 MMT, a 10.2% increase over that harvested in 2015. Notwithstanding the difficult harvest conditions in 2016, the production estimate was increased 3.7 MMT from that based on the July survey.

Coupled with carry-forward stock of 7.3 MMT, 19.8% less than in 2015, the overall western grain supply is projected to be 78.7 MMT, 6.5% greater than that of the previous year.

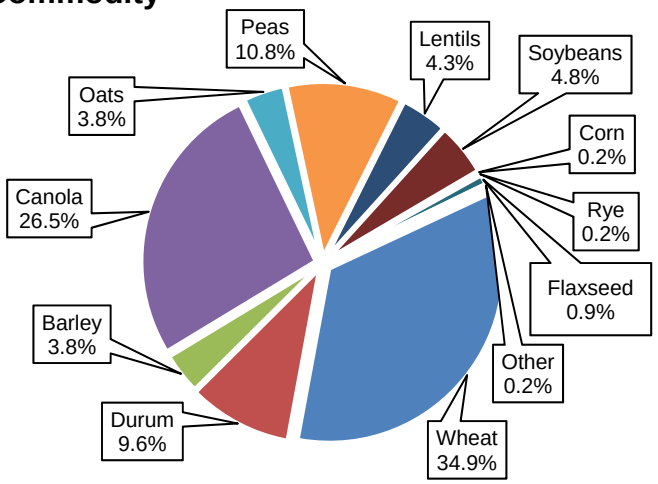
Production & Carry Over (000's tonnes) *Table M-2*	**2016**	**2015**	**Var. from Last Year**
Western Canada Total Production - Preliminary	71,336.8	64,738.6	10.2%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,343.9	9,162.6	-19.8%
Total Grain Supply	**78,680.7**	**73,901.2**	**6.5%**

Traffic and Movement

As winter conditions set in and railways shifted to winter operating rules, producer deliveries in December slowed, averaging 0.8 MMT per week for the month. Primary elevator stock levels averaged 3.4 MMT, supporting shipment levels. Despite a slowdown through the holidays in late December, the shipment levels held up relatively well during the month.

Table M-3	**DEC 2016**	**2016-17 YTD**	**Var. from Last YTD**
Primary Elevator Shipments (000's tonnes)			
Manitoba	499.0	3,714.4	0.8%
Saskatchewan	1,749.7	9,848.3	-2.4%
Alberta	1,085.5	6,034.8	2.4%
British Columbia	34.9	143.4	-30.5%
Total	**3,369.1**	**19,740.6**	**-0.7%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	3,318.1	17,663.3	-2.6%
Shipments to Eastern Canada	350.5	1,346.4	22.7%
Shipments to US & Mexico	625.3	2,938.8	-4.1%
Shipments Western Domestic	57.9	234.5	-3.0%
Total	**4,351.8**	**22,227.9**	**-1.5%**
Western Port Unloads (Number of Cars)			
Vancouver	16,189	98,900	-1.8%
Prince Rupert	4,721	27,124	-7.5%
Churchill	0	0	-100.0%
Thunder Bay	7,884	47,887	-0.4%
Total	**28,794**	**173,911**	**-3.3%**
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,786.3	9,082.8	-1.8%
Prince Rupert	522.3	2,397.4	-10.0%
Churchill	0	0	-100.0%
Thunder Bay	1,129.1	4,533.6	-0.4%
Total	**3,437.7**	**16,013.6**	**-3.8%**

Primary Elevator Shipments by Commodity

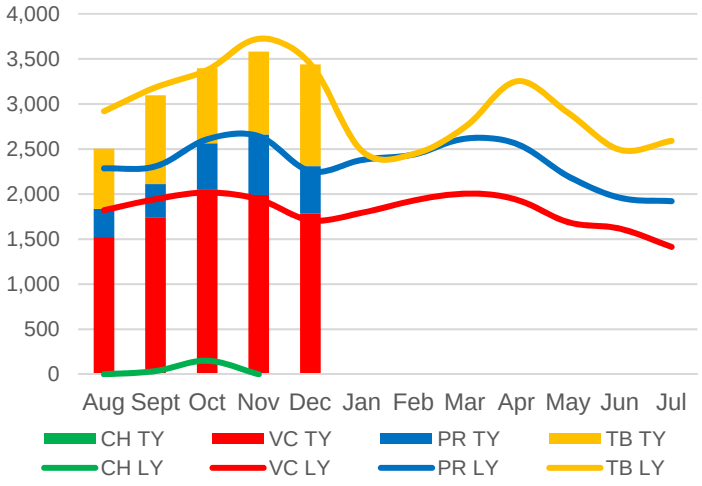


Total YTD = 19.7 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators declined in December reaching a level just 0.7% less than the previous crop year. As the shipping season progressed, some early challenges in matching grains and grades to sales programs due to quality issues were overcome. Confidence was building that sufficient quality product would be available to meet customer demands.

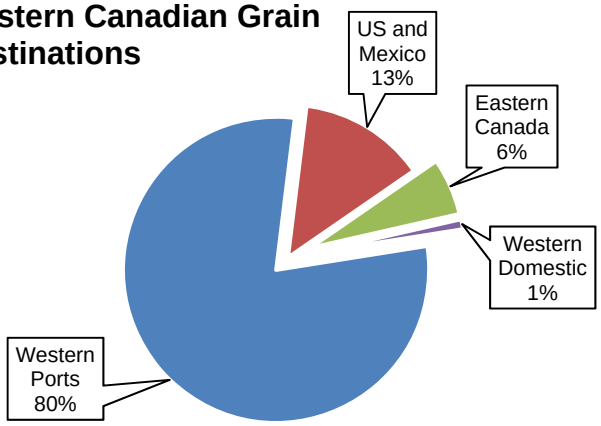
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Shipments out of the western ports declined in the first five months of the crop year, registering a 3.8% decrease on a year-over-year basis. Early-season challenges matching supply with the waiting vessel nominations due to quality concerns during harvest were largely overcome as the overall crop quality became known to shippers. The 2016 season did 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



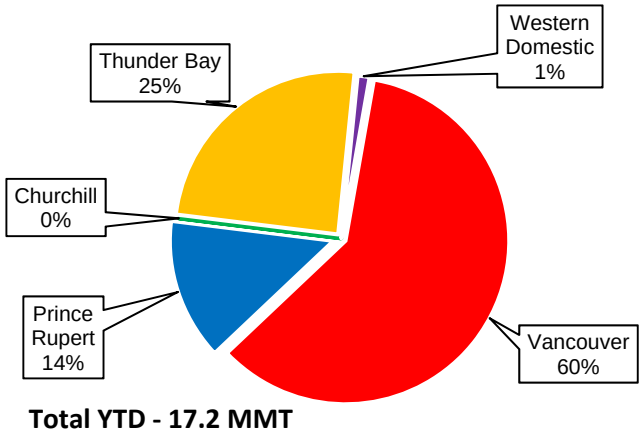
Total YTD = 22.2 MMT

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 the first five months of the 2016-17 crop year amounted to 17.7 MMT, down 2.6% from that handled in the same period a year earlier. Western Domestic shipments fell by a comparable 3.0%. However, shipments into Eastern Canada jumped sharply in the October through December period, increasing on a year-to-date basis by 22.7%. This was driven largely by an increase in the volume of canola moving east.

Over 95% of the volume directed to western ports is handled in covered hopper cars, with about 60% 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. After rebounding in September and October, hopper-car volumes to western ports fell off in November and December. Shipments through the first five months of the crop year increased by 0.3% for Vancouver but fell by 4.0% for Thunder Bay and 11.3% for Prince Rupert.

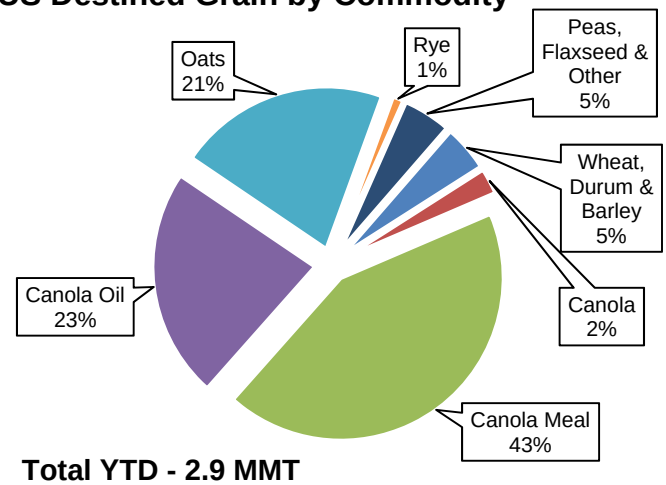
Western Canadian Destined Hopper Car Traffic



Total YTD - 17.2 MMT

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

US Destined Grain by Commodity



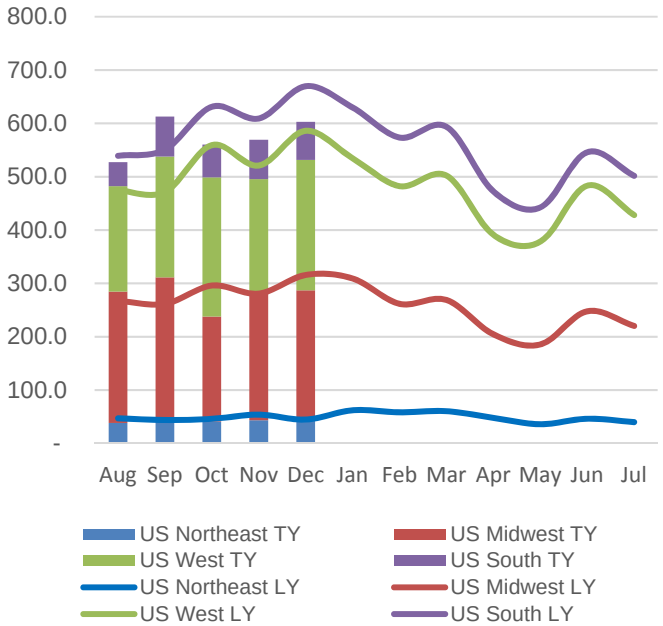
Total YTD - 2.9 MMT

GMP Data Table 2B-18

Rail shipments into the US, which totaled 2.9 MMT in the first five months of the crop year, decreased by 4.3% from that handled in the same period a year earlier. The movement is dominated by canola and canola products, which accounted for 68% of the total tonnage. Much of the US-bound traffic is directed into markets in the Midwest and West, with 53.6% of the tonnage sourced out of Saskatchewan.

Rail traffic from Western Canada to Mexico through December totaled 112,100 tonnes, an increase of 1.0% over that reported in the same five-month period a year earlier.

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



GMP Data Table 2B-18

System Efficiency and Performance

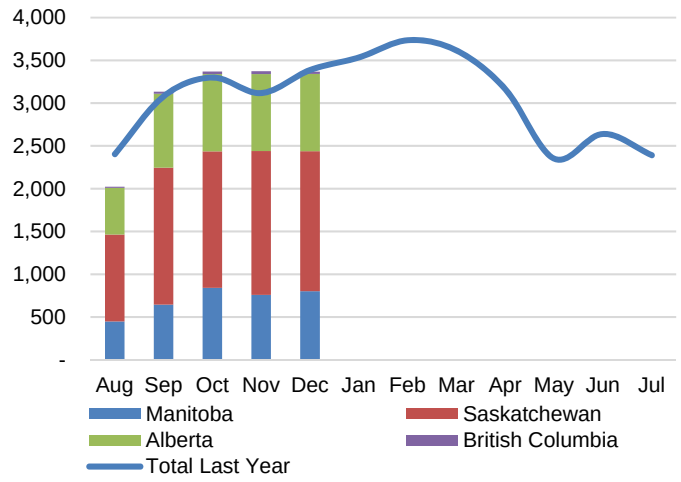
Primary elevator stocks held constant during December as the GHTS experienced the first bout of winter weather. The weekly average remained 3.4 MMT. Available delivery space in the country network was good throughout the period. Country elevator stocks utilized only 73% of the working capacity of the network. By province, stocks ranged from 68% of working capacity in Saskatchewan, to 76% and 80% in Alberta and Manitoba respectively, 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 slight decline from past performance, falling by 2.5% from that experienced last year.

Table M-4	DEC 2016	2016-17 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	3,367.4	3,003.6	-1.8%
Average Days in Store	27.0	23.1	-2.5%
Railway Operations (days)			
Cycle Time to Western Ports	13.5	13.1	-0.2%
Cycle Time to Eastern Canada	19.6	19.1	-17.4%
Cycle Time to US	22.2	23.2	-10.2%
Loaded Transit to Western Ports	5.4	5.0	-1.7%
Loaded Transit to Eastern Canada	8.0	7.8	-22.0%
Loaded Transit to US	10.5	9.8	-9.8%
Traffic in 50-car+ blocks (Q1)	87.1%	87.1%	0.7%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,129.7	1,057.9	-12.1%
Average Days in Store	9.0	9.9	-8.3%
Port Unloads (hopper cars)	28,794	173,911	-3.3%
Terminal Out-of-Car Time	19.1%	15.1%	48.5%
Western Canada Port Operations			
Average Vessel Time in Port (days)	10.2	9.1	21.3%

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

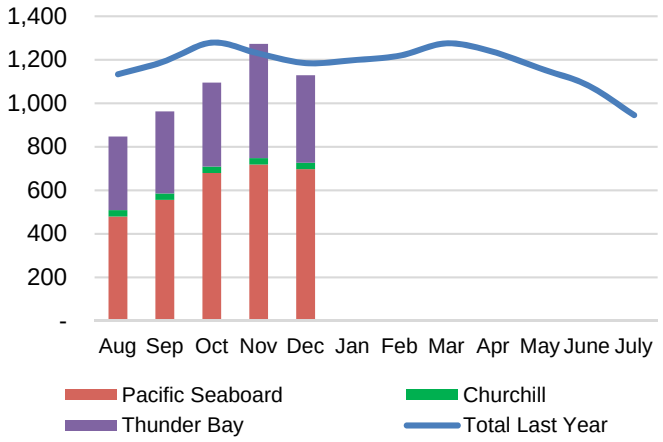
Average Weekly Primary Elevator Stocks (000's tonnes)



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 where they remained through December. Despite challenging harvest conditions, deliveries replenished supplies as shipping grew to meet aggressive sales programs. Weekly producer deliveries averaged 0.8 MMT throughout December.

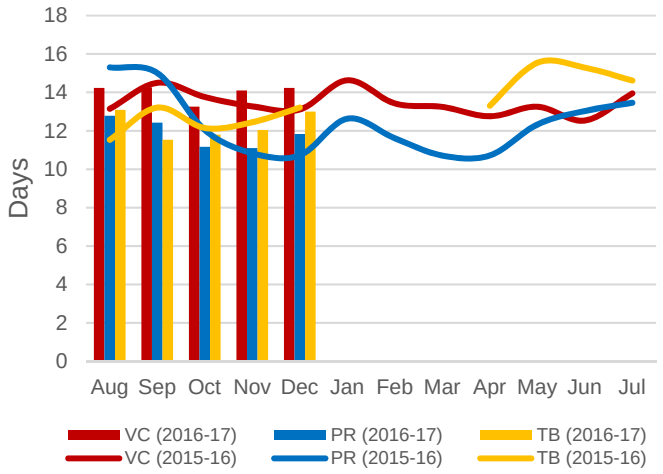
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

The average of 1.1 MMT in store at terminal elevators in December largely reflects a drawdown of stock at Thunder Bay due to a heavy shipping program prior to the close of navigation for the season. Average terminal stock levels had been 1.3 MMT in November. Throughout the fall, a steady supply of vessels has been on hand at the West Coast and at Thunder Bay to load arriving grain to meet the sales programs. Currently western ports are utilizing just 65% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

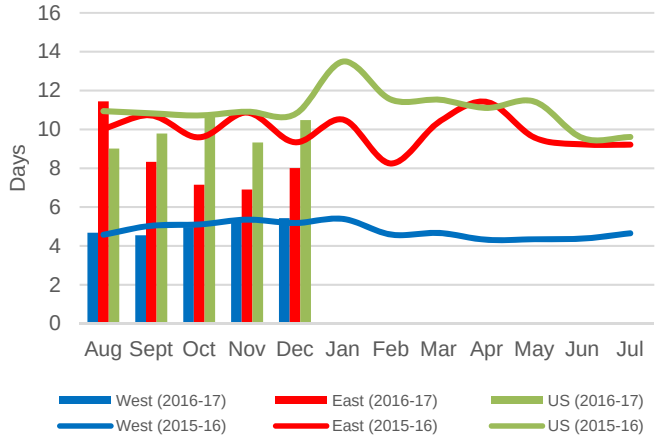


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 13.1 days through December 2016, effectively unchanged from the same five-month period a year earlier. This result was mostly shaped by a 6.5% decrease in the Prince-Rupert corridor, which fell to an average of 11.7 days, and supported by a 2.8% decrease in the average for the Thunder-Bay corridor. However, these reductions were largely offset by a 2.9% increase in the Vancouver corridor's average to 14.2 days.

Car cycles to Eastern Canada decreased more substantively during this period, falling by 17.4%, to an average of 19.1 days from 23.1 days a year earlier. Similarly, the car cycle for movements into the United States declined by 10.2%, to an average of 23.2 days from the 25.8-day average posted in the same period of the previous crop year.

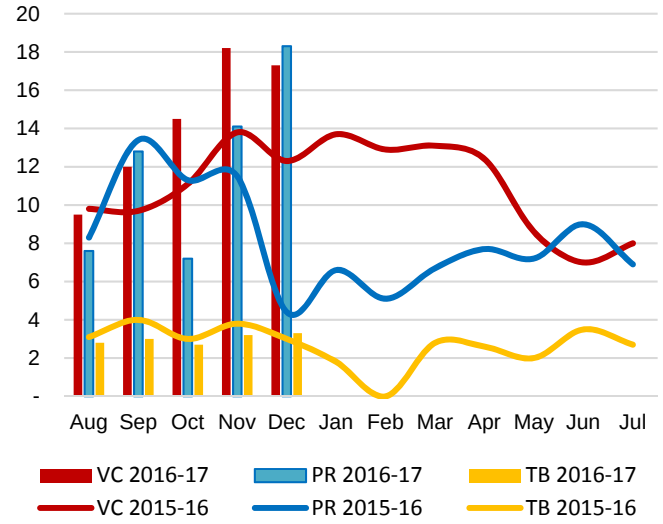
Average Loaded Transit Times (days)



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

Loaded transit time for traffic destined to Western Canadian ports averaged 5.0 days through the first five months of the 2016-17 crop year, down 1.7% from the 5.1-day average posted a year earlier. This result was primarily shaped by reductions in the Thunder Bay and Prince Rupert corridors, which declined by 8.0% and 3.6% respectively. These were tempered by a 2.1% increase in the Vancouver-corridor average. The average loaded transit time for movements into Eastern Canada declined sharply, falling by 22.0%, to 7.8 days from 10.0 days the year previous. The corresponding average for US-destined traffic decreased markedly as well, falling by 9.8%, to 9.8 days from the 10.9-day average posted twelve months earlier.

Average Days in Port per Vessel

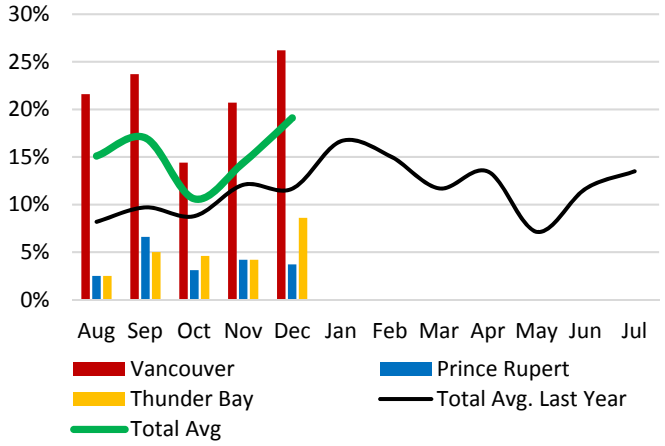


GMP Data Table 5D-1

For the crop year-to-date, the average time vessels were in port waiting and loading grain was 21.3% greater than in the same period of the previous year. The average for all ports was 10.2 days in December 2016, nearly 60% higher than the average registered in December of the 2015-16 crop year. This divergence was largely the result of a sizable lineup of vessels waiting at Prince Rupert.

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. The 2016-17 crop year has seen the Thunder Bay average hold steady while that for Vancouver and Prince Rupert has increased. While the average number of days vessels are spending at Vancouver and Prince Rupert have fluctuated somewhat, the two west coast ports have experienced monthly increases to over 18 days in November and December respectively. Although movement from country to port has been relatively smooth thus far this year, these elevated timeframes warrant close attention 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 decline to 10.6% in October 2016, the aggregate measure for all ports climbed to 14.4% in November and further to 19.1% in December. While terminals at Vancouver and Thunder Bay registered increases, rising to 21.2% and 4.8% respectively, Prince Rupert terminal experience a small decline to 3.7% of their time being without railcars to unload. Year to date out of car time has risen from 10.2% to 15.1% this year.

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 an average of the published single-car rates. They do not include multi-car incentives ($4/tonne for 50 + car blocks and $8/tonne for 100 + car blocks).*

CN raised its single-car freight rates by about 5.0% in early December 2016. This followed an earlier across-the-board rate escalation of 5.0% at the beginning of October. Owing to the cuts it made at the beginning of the 2016-17 crop year, however, CN's rates on westbound movements into Vancouver stood only 8.6% higher at the close of December; 7.6% higher on those into Prince Rupert. CN's eastbound rates into Thunder Bay saw a net increase of about 10.1% during this same period. CP's single-car freight rates also rose, with a 4.0% increase being instituted at the beginning of October 2016. These rates remained unchanged through the close of December. All these pricing actions were consistent with a 4.8% increase in the VRCPI, as determined by the Canadian Transportation Agency in April 2016.

Commercial Developments

Construction of G3 Terminal Vancouver to proceed: On 21 December 2016 G3 Global Holdings announced that it would be proceeding with the construction of a new state-of-the-art grain terminal in North Vancouver, British Columbia. The facility, which had received all necessary permit approvals in May 2016, represents the first all-new terminal to be built within the Port of Vancouver area since the 1960s. More importantly, it significantly advances the company's stated objective of building a coast-to-coast grain-handling network setting new standards for efficiency. The terminal will feature a loop track that will be capable of holding three 134-car trains, a first for grain exporting terminals in Canada. In addition, it will also have over 180,000 tonnes of storage to be used in handling cereal grains, oilseeds, pulses and special crops, much of which will be supplied by affiliated G3 Canada Limited under a throughput agreement. Designed to allow arriving trains to unload while still in motion – without uncoupling from their locomotives – and then be returned to a G3 primary elevator for reloading, the terminal is expected to significantly increase the company's supply chain efficiency. This next-generation facility will also be uniquely adapted to the needs of high-velocity receiving and shipping. Construction, which is expected to commence in March 2017, is slated for completion in 2020.

Infrastructure

The GMP measures on infrastructure changes are reported in the data tables on a quarterly basis with the exception of the railway car fleet. Only modest changes were noted to the GHTS's infrastructure through the first five months of the 2016-17 crop year. Chief among these was a 1.6% increase in the total number of country elevators, which rose to 389 from 383, due in large measure to the November licensing of several previously unlicensed facilities acquired by AGT Food and Ingredients. This, along with other recent expansion initiatives, lifted the GHTS's licensed storage capacity by 1.8%, to almost 8.0 MMT from the 7.8 MMT in place at the close of the 2015-16 crop year.

This period 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.

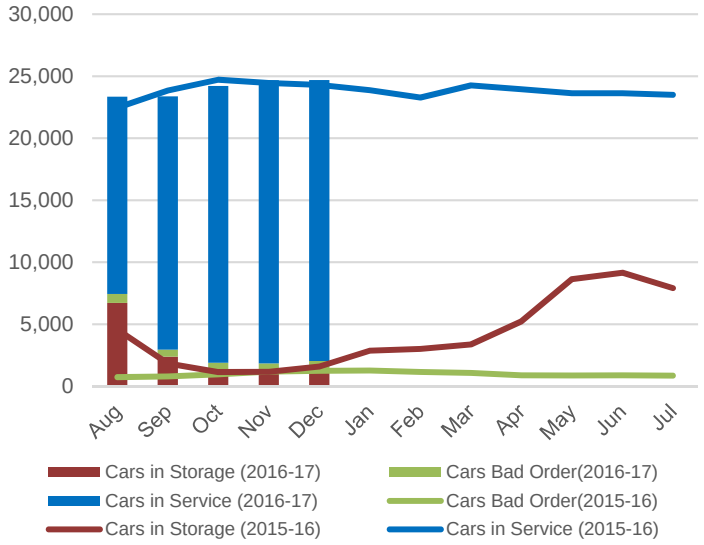
November also saw the relicensing of the MobilEx Terminal facility, now owned by AGT Food and Ingredients, at Thunder Bay. This, in conjunction with an 81,700-tonne increase in the capacity of the Richardson International terminal in Vancouver, raised the total number of GHTS terminal elevators to 16 from 15, and lifted the system's total licenced storage capacity 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*	24,689	n/a	0.4%
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 December 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 22,834 in November, before retreating slightly to 22,657 in December, 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

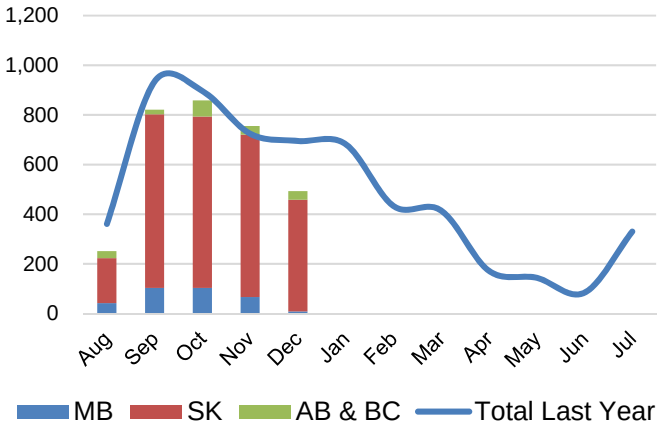
In September, CP de-listed a total of 22 producer car loading sites. This was comprised of three sites in Manitoba, four in Alberta and 15 in Saskatchewan. At the same time, CP added two loading sites to their Saskatchewan list. The net reduction is 20 Class 1 Carrier sites. The total number of available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

Table M-8 **Producer Cars Scheduled**	DEC 2016	2016-17 YTD	Var. from Last YTD
Manitoba	8	322	-41.8%
Saskatchewan	450	2,674	-6.3%
Alberta & B.C.	35	182	-10.3%
Total	**755**	**3,178**	**-12.0%**

Producer cars scheduled this year-to-date are down 12.0% from the previous year. Delays in harvesting the 2016 crop contributed to a reduction of over 10.0% in producer car applications received during this period.

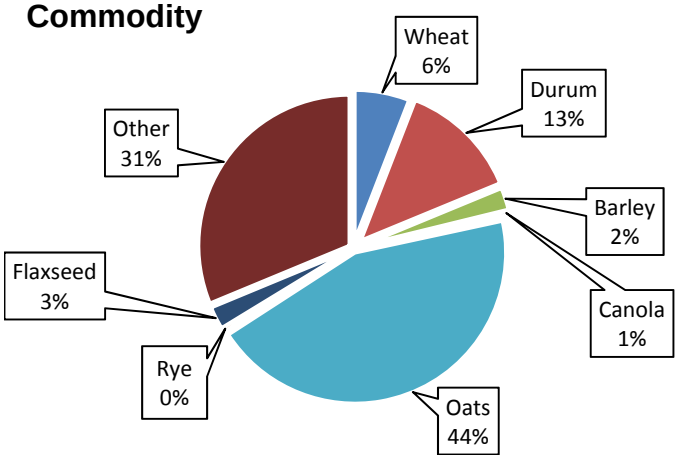
Producer Cars Scheduled by Province



GMP Data Table 6B-2

Producer car shipments have shifted from primarily being wheat, durum and oats to reflect a significant increase in the number of cars carrying special crops. Shipments in the first five months of the crop year continue to reflect this trend, with the traditional commodities comprising only 63% of the total. The balance consists primarily of peas and lentils.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2

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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