Grain Monitoring Program Report for: January 2017

Release Date: March 13, 2017

GMP Dashboard

Table M-1	JAN 2017	2016-17 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)			
Total Time in System	39.1	38.4	-5.0%
Average Days In Store – Country	26.0	23.6	-4.5%
Loaded Transit Time	6.0	5.2	1.0%
Average Days In Store – Terminal	7.1	9.6	-9.4%
Total Traffic ('000 tonnes)			
Primary Elevator Shipments	3,569.7	23,310.3	1.3%
Railway Shipments (all Western Canada traffic)	4,004.8	26,232.7	0.0%
Western Port Terminal Shipments	2,819.2	18,844.7	-1.5%
Railway Performance			
Avg. Loads on Wheels (Cars)	11,419	10,754	0.4%
Total Western Port Car Cycle (days)	15.4	13.6	2.2%
Port Performance			
Western Port Unloads (Number of Cars)			
Vancouver	20,834	120,054	0.8%
Prince Rupert	5,274	32,398	-8.7%
Churchill	0	0	-100.0%
Thunder Bay	2,687	50, 574	2.1%
Total	28,795	203,026	-1.3%
Vessel Time in Port (days)	13.7	9.7	22.8%

- *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

Total rail movements out of Western Canada jumped by 9.7% from the previous January, but remained unchanged on a year-to-date basis. Western port shipments for January totaled 2.8 MMT as shipping on the St. Lawrence Seaway ceased for the winter, representing an 18.3% decrease from December's total. Nonetheless, this was 13.8% higher than the amount shipped in January of last year. Accompanying the decrease in shipments, is a 13.7-day average in the amount of time vessels spent in port, an increase over December's 10.2-day average due to a much-reduced proportion of Thunder Bay vessels included in the monthly average.

Highlights for January 2017

Traffic and Movement (page 2)

- Primary-elevator shipments were 23.3 MMT in the first half of the 2016-17 crop year, 1.3% more than last year.
- Total rail shipments (including primary/process elevators & producer cars) to all destinations from Western Canada reached 26.2 MMT, unchanged from that handled in the same six-month period a year earlier.
- Crop year-to-date shipments from Western Canadian ports totaled 18.8 MMT, down 1.5% from the same period last year.

System Efficiency and Performance (page 4)

- Average weekly stocks in the country decreased by 2.3% from last year-to-date, while the average days-in-store was down 4.5%.
- Average weekly port-terminal stocks decreased 12.0% from the same period last year, while average days-in-store fell 9.4%.
- Railcar cycle times through January averaged 13.6 days to western ports; 19.8 days to eastern Canada; and 23.8 days to US destinations.
- The year-to-date average for vessel time in port is 9.7 days, a 22.8% increase from that observed in the previous crop year.
- January port-terminal out-of-car time fell to 17.1% in Vancouver and 1.5% in Prince Rupert and to 0.0% in Thunder Bay.

Commercial Relations (page 6)

- Average primary-elevation charges rose 1.1% in the first half of the crop year.
- There were no changes to the single-car freight rates posted by CN and CP in January 2017. Net increases through the first half of the crop year roughly ranged from 4% to 10%.
- Average terminal-elevation charges rose 0.4% in the first half of the crop year.

Infrastructure (page 6)

- The GHTS's country-elevator network saw a net increase of six facilities in the first six 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 last year
- 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 November production estimate was increased 3.7 MMT from the July survey making the 2016 harvest the second largest in Western Canadian history.

Coupled with carry-forward stock of 7.4 MMT, 18.9% less than in 2015, the overall western grain supply is projected to be 78.8 MMT, 6.6% greater than that of the previous year.

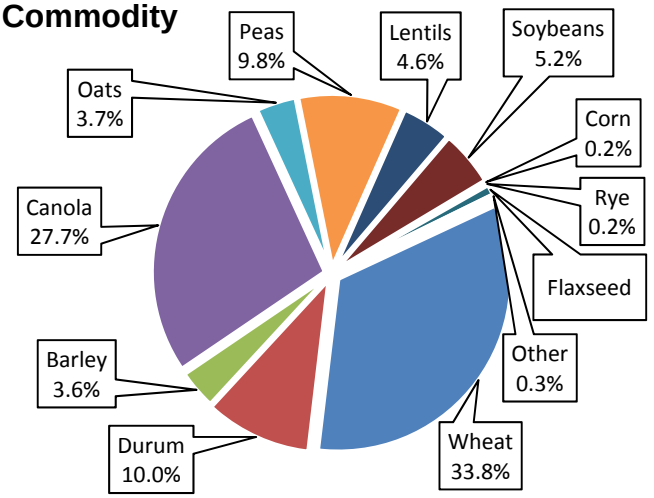
Production & Carry Over (000's tonnes) *Table M-2*	**2017**	**2015**	**Var. from Last Year**
Western Canada Total Production - Preliminary	71,336.8	64,738.6	10.2%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,428.9	9,162.6	-18.9%
Total Grain Supply	**78,765.7**	**73,901.2**	**6.6%**

Traffic and Movement

As winter progressed, and the December holiday slowdown was passed, producer deliveries grew in January, averaging 0.9 MMT per week for the month. Primary elevator stock levels averaged 3.4 MMT, supporting overall shipment levels equal to the deliveries in the month.

Table M-3	**JAN 2017**	**2016-17 YTD**	**Var. from Last YTD**
Primary Elevator Shipments (000's tonnes)			
Manitoba	488.3	4,202.7	1.1%
Saskatchewan	1,859.8	11,707.8	0.4%
Alberta	1,190.2	7,225.0	3.8%
British Columbia	31.4	174.8	-27.4%
Total	**3,569.7**	**23,310.3**	**1.3%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	2,916.7	20,580.0	-0.6%
Shipments to Eastern Canada	432.7	1,779.1	21.6%
Shipments to US & Mexico	603.9	3,587.7	-4.7%
Shipments Western Domestic	51.5	285.9	-3.8%
Total	**4,004.8**	**26,232.7**	**0.0%**
Western Port Unloads (Number of Cars)			
Vancouver	20,834	120,054	0.8%
Prince Rupert	5,274	32,398	-8.7%
Churchill	0	0	-100.0%
Thunder Bay	2,687	50,574	2.1%
Total	**28,795**	**203,026**	**-1.3%**
Terminal Elevator Shipments (000's tonnes)			
Vancouver	2,132.8	11,227.1	1.7%
Prince Rupert	519.7	2,917.1	-10.2%
Churchill	0	0	-100.0%
Thunder Bay	166.7	4,700.5	1.1%
Total	**2,819.2**	**18,844.7**	**-1.5%**

Primary Elevator Shipments by Commodity

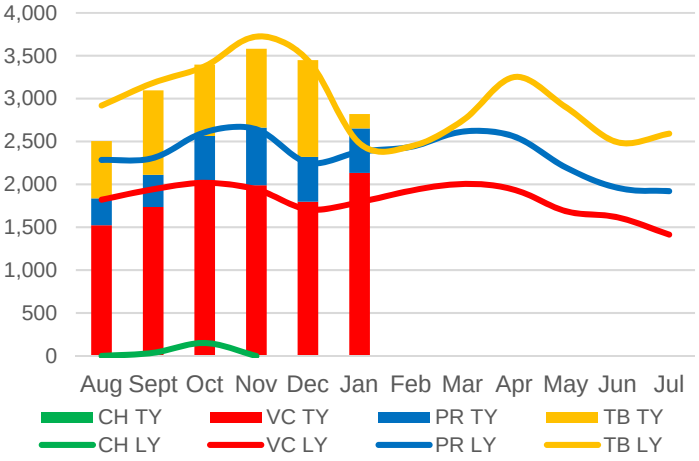


Total YTD = 23.3 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators increased in January to a level 1.3% higher than the previous crop year to date. 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. BC shipments were 27% lower than the previous year as a result of the slower harvest in the Peace Region.

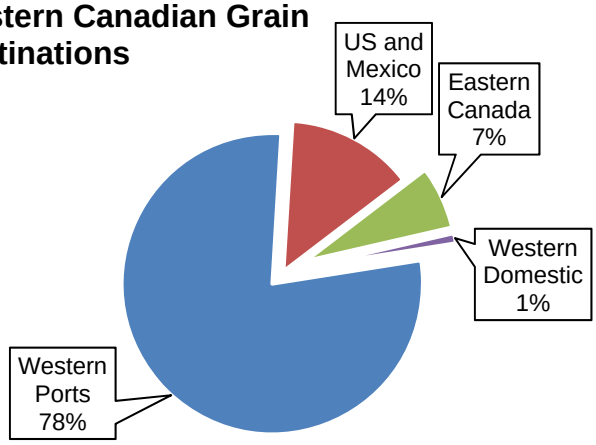
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Shipments out of the western ports declined in the first half of the crop year, registering a 1.5% 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 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



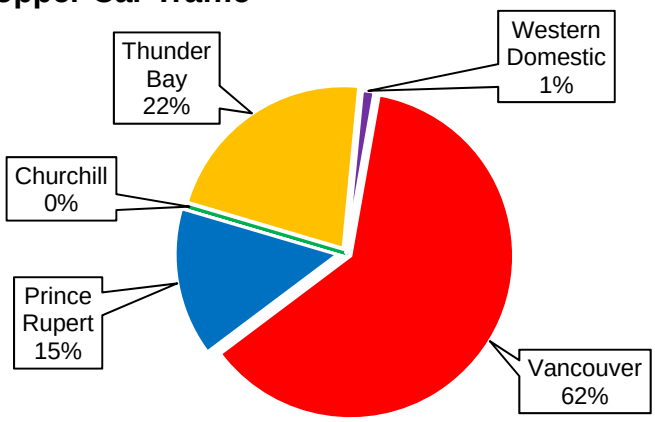
Total YTD = 26.2 MMT

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

About 78% of the grain shipped by rail from the prairies was directed to Western Canada's four ports in support of offshore sales. Total rail shipments to these ports in the first six months of the 2016-17 crop year amounted to 20.6 MMT, down 0.6% from that handled in the same period a year earlier. Western Domestic shipments fell by a greater 3.8%. However, shipments into Eastern Canada jumped sharply in the October through January period, increasing on a year-to-date basis by 21.6%, made up predominantly by canola.

Over 95% of the volume directed to western ports is handled in covered hopper cars, with about 62% of this traffic moving to Vancouver. Year-round operations, favourable economics and better access to major Asia-Pacific markets combine to favour this gateway over all others. Although hopper-car volumes to western ports rebounded by 11.2% in January, the year-to-date total was off by 1.6% from the previous year. Shipments through the first six months of the crop year increased by 1.9% for Vancouver but fell by 9.2% for Prince Rupert and 2.2% for Thunder Bay.

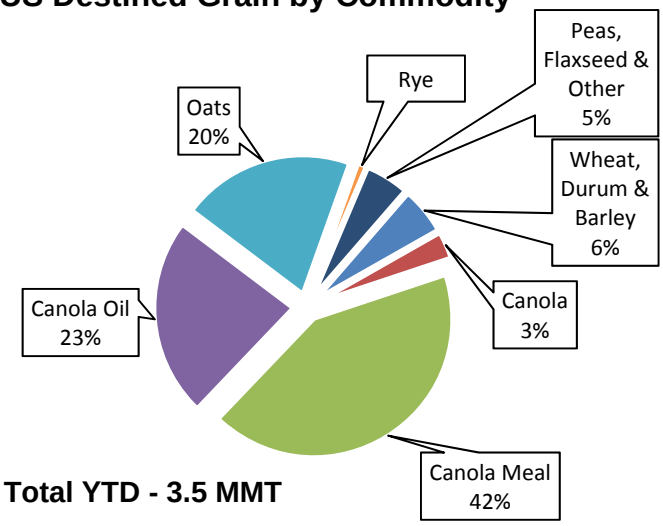
Western Canadian Destined Hopper Car Traffic



Total YTD - 20.0 MMT

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

US Destined Grain by Commodity



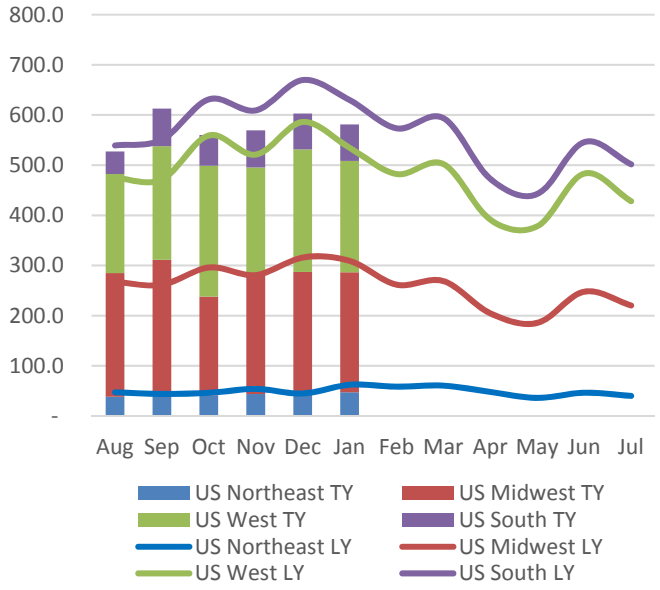
Total YTD - 3.5 MMT

GMP Data Table 2B-18

Rail shipments into the US, which totaled 3.5 MMT in the first six months of the crop year, decreased by 4.9% 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 54.1% of the tonnage sourced out of Saskatchewan.

Rail traffic from Western Canada to Mexico through January totaled 135,000 tonnes, a decrease of 0.3% from that reported in the same six-month period a year earlier.

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



GMP Data Table 2B-18

System Efficiency and Performance

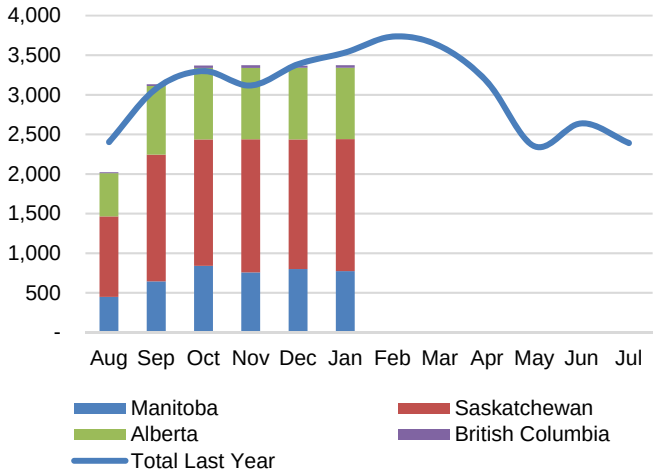
Primary elevator stocks held constant during January as variable winter weather posed some challenges to the GHTS. The weekly average remained 3.4 MMT. Available delivery space in the country network was good throughout the period. Country elevator stocks utilized only 73% of the working capacity of the network. By province, stocks ranged from 69% of working capacity in Saskatchewan, to 76% and 78% 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 only 4.5% from that experienced last year.

Table M-4	JAN 2017	2016-17 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	3,372.6	3,063.0	-2.3%
Average Days in Store	26.0	23.6	-4.5%
Railway Operations (days)			
Cycle Time to Western Ports	15.4	13.6	2.2%
Cycle Time to Eastern Canada	20.4	19.8	-13.9%
Cycle Time to US	25.9	23.8	-10.1%
Loaded Transit to Western Ports	6.0	5.2	1.0%
Loaded Transit to Eastern Canada	8.8	8.2	-19.8%
Loaded Transit to US	11.2	10.1	-11.0%
Traffic in 50-car+ blocks (Q2)	80.7%	84.1%	-1.5%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,056.4	1,057.6	-12.0%
Average Days in Store	7.1	9.6	-9.4%
Port Unloads (hopper cars)	28,795	203,026	-1.3%
Terminal Out-of-Car Time	11.3%	14.7%	31.0%
Western Canada Port Operations			
Average Vessel Time in Port (days)	13.7	9.7	22.8%

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

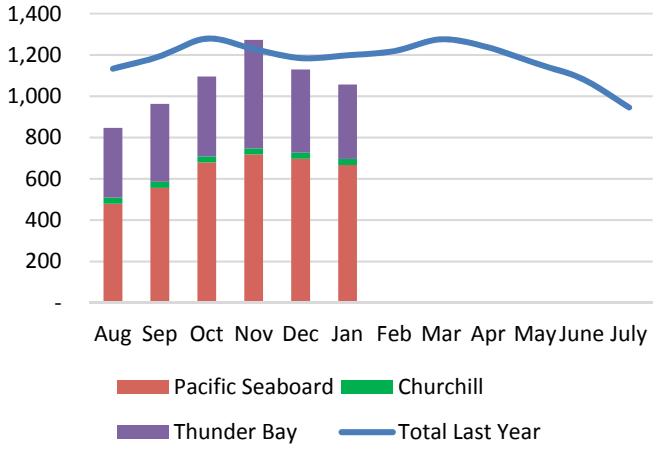
Average Weekly Primary Elevator Stocks (000's tonnes)



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 January. Despite challenging harvest conditions, deliveries replenished supplies as shipping grew to meet aggressive sales programs. Weekly producer deliveries averaged 0.9 MMT throughout January.

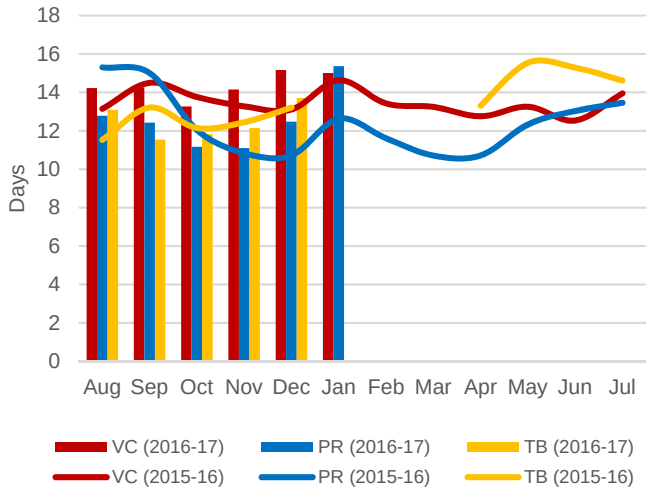
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

The average of 1.1 MMT in store at terminal elevators in January 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 61% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

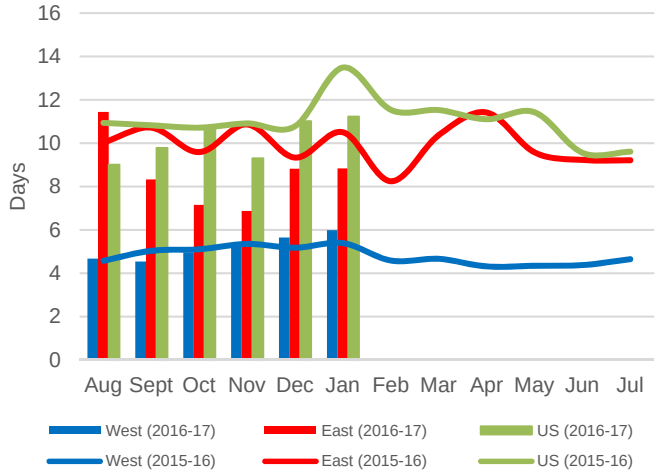


GMP Data Table 5B-1

Railway car cycle times to Western Canadian ports averaged 13.6 days through January 2017, an increase of 2.2% from the 13.3-day average posted in the same six-month period a year earlier. This result was mostly shaped by a 4.3% increase in the Vancouver corridor, which rose to an average of 14.3 days. However, this increase was partially offset by reductions of 1.2% in the Prince Rupert corridor and 0.6% in the Thunder-Bay corridor.

Car cycles to Eastern Canada decreased more substantively during this period, falling by 13.9%, to an average of 19.8 days from 23.0 days a year earlier. Similarly, the car cycle for movements into the United States declined by 10.1%, to an average of 23.8 days from the 26.5-day average posted in the same period of the previous crop year.

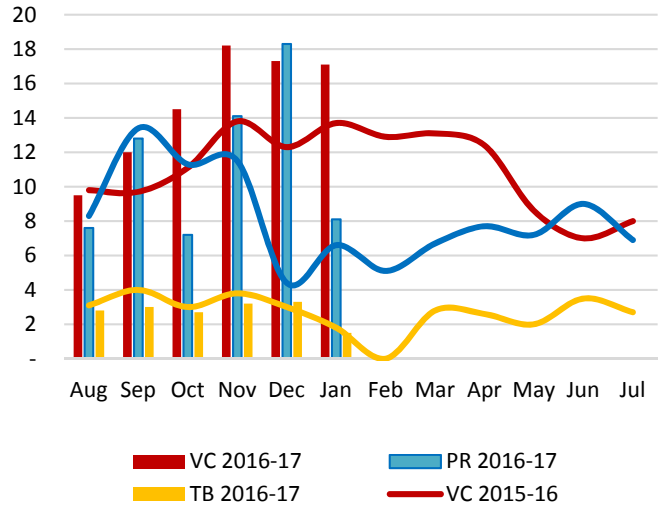
Average Loaded Transit Times (days)



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

Loaded transit time for traffic destined to Western Canadian ports averaged 5.2 days through the first six months of the 2016-17 crop year, up 1.0% from the 5.1-day average posted a year earlier. This result was primarily shaped by increases in the Vancouver and Prince Rupert corridors, which rose by 3.4% and 4.0% respectively. These were tempered by a 6.5% reduction in the Thunder Bay-corridor average. The average loaded transit time for movements into Eastern Canada declined sharply, falling by 19.8%, to 8.2 days from 10.2 days the year previous. The corresponding average for US-destined traffic decreased markedly as well, falling by 11.0%, to 10.1 days from the 11.3-day average posted twelve months earlier.

Average Days in Port per Vessel

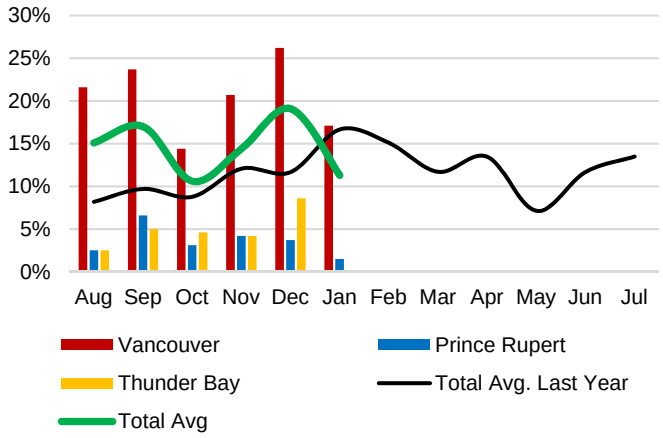


GMP Data Table 5D-1

For the crop year-to-date, the average time vessels were in port waiting and loading grain was 22.8% greater than in the same period of the previous year. The average for all ports was 13.7 days in January 2017, 23.4% higher than the average registered in January of the 2015-16 crop year. This divergence was largely the result of a sizable lineup of vessels waiting at Vancouver.

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, while Prince Rupert's average fell to just 8 days in January. Although movement from country to port has been relatively smooth thus far this year, these elevated timeframes warrant continued monitoring as the 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 before pulling back to 11.3% in January. Terminals at Vancouver, Prince Rupert and Thunder Bay all registered decreases in January, falling to 17.1%, 1.5% and 0.0% respectively, of their time being without railcars to unload.

Commercial Relations

Table M-5 **Rates: $CDN per tonne**	**Q2 2016-17**	**Index (1999=100)**	**% Change YTD**
Avg. Primary Elevation	$16.15	134.7	1.1%
Rail to Vancouver			
CN	$52.98	143.6	8.6%
CP	$52.34	140.9	4.0%
Rail to Pr. Rupert			
CN	$52.98	126.9	7.6%
Rail to Thunder Bay			
CN	$52.96	165.3	10.1%
CP	$44.98	151.0	3.9%
Average Terminal Elevation	$14.35	157.3	0.4%

Note: *Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the second quarter of the 2016-17 crop years. Rail rates are as at January 31, 2017, 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 January, and 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 January. 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

Roquette to invest in new facility:

On 18 January 2017 Roquette, a private French-based company dealing in plant-based food ingredients, announced their intent to invest more than $400 million building a new pea-protein manufacturing facility in Portage la Prairie, Manitoba, to address the growing demand for plant proteins. Roquette's investment – believed to be one of the world's largest dedicated to pea-protein to date – is rooted in a corporate strategy aimed at accelerating its global growth through the development of products for the food, nutrition and health markets. The operation, which is expected to employ about 150 people in processing some 120,000 tonnes of peas annually, will expand Roquette's existing pea-protein production capacity in the face of the growing customer demand for plant-based proteins both in North America and around the world. Given the increasing scope of western Canadian pea production, along with a centrally located transportation network, the new facility will be well positioned to leverage these logistical strengths. Subject to the company obtaining all needed permits, construction is expected to start in the latter half of 2017 with production following sometime in 2019.

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 six 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.

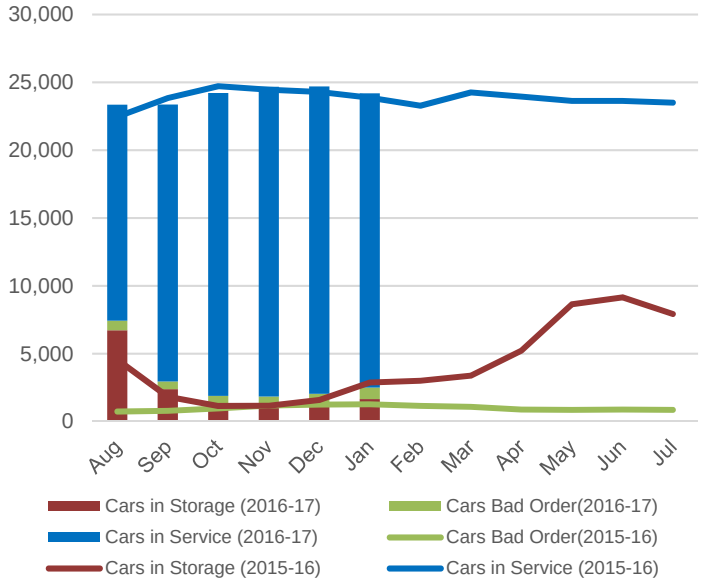
November also saw the relicensing of the MobilEx Terminal facility, now owned by AGT Food and Ingredients, at Thunder Bay. This, in conjunction with an 81,700-tonne increase in the capacity of the Richardson International terminal in Vancouver, raised the total number of GHTS terminal elevators to 16 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	Q2 2016-17	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	389	38.7	1.6%
Storage Capacity (000's tonnes)	7,987.4	113.7	1.8%
Railway			
Route Miles - Major Carriers	14,606.5	98.5	-0.4%
Route Miles - Shortline Carriers	2,669.6	57.5	1.7%
Route Miles - Total	**17,276.1**	**88.7**	**-0.1%**
Average Weekly Total Hopper Car Fleet Size*	24,185	n/a	0.5%
Terminal Elevator			
Terminal Facilities (Count)	16	114.3	6.7%
Storage Capacity (000's tonnes)	2,485.0	97.2	3.8%

** Hopper Car Fleet Size represents all cars in all statuses for the month of January 2017.*

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 in December and January to 21,692, now encompassing 90% of the overall fleet. The balance of the fleet, comprising 10% 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

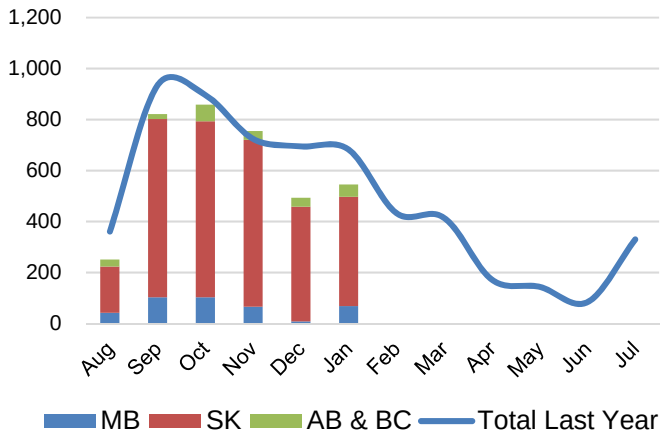
In September, CP de-listed a total of 22 producer car loading sites. This was comprised of three sites in Manitoba, four in Alberta and 15 in Saskatchewan. At the same time, CP added two loading sites to their Saskatchewan list. The net reduction is 20 Class 1 Carrier sites. Seven former producer car loading sites on the Big Sky Railway in west-central Saskatchewan have now been licensed as primary elevators, thereby reducing the number of Shortline Carrier sites. The total number of available producer car loading locations now stands at 289.

Table M-7 **Producer Car Loading Sites**	Q2 2016-17	Index (1999=100)	% Change YTD
Class 1 Carriers	159	24.7	-11.2%
Shortline Carriers	130	200.0	-5.1%
All Carriers	**289**	**40.8**	**-8.5%**

Table M-8 **Producer Cars Scheduled**	JAN 2017	2016-17 YTD	Var. from Last YTD
Manitoba	68	390	-40.8%
Saskatchewan	429	3,103	-7.9%
Alberta & B.C.	48	230	-12.5%
Total	**545**	**3,723**	**-13.3%**

Producer cars scheduled this year-to-date are down 13.1% from the previous year. Delays in harvesting the 2016 crop contributed to a reduction of over 12.0% in producer car applications received thus far this crop year.

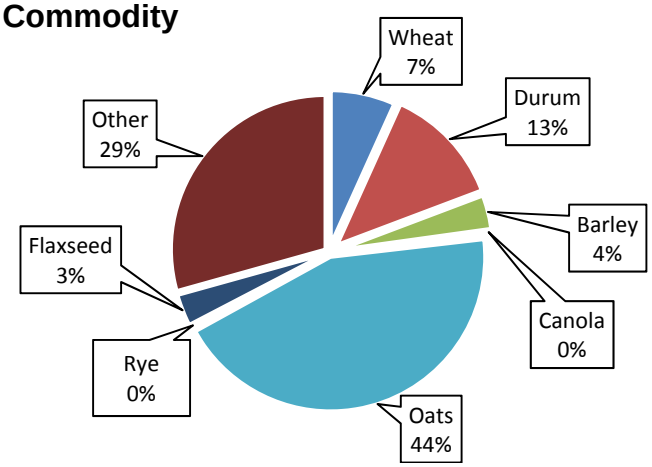
Producer Cars Scheduled by Province



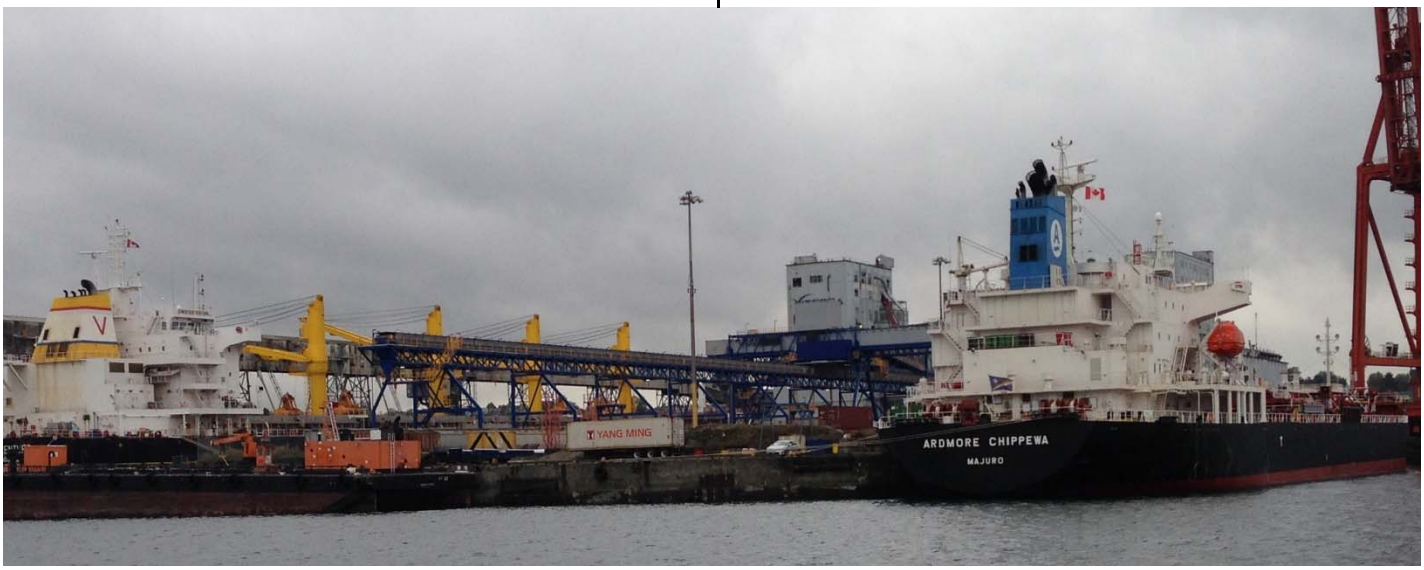
GMP Data Table 6B-2

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 half of the crop year continue to reflect this trend, with the traditional commodities comprising only 64% of the total. The balance consists primarily of peas and lentils.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2



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