

Grain Monitoring Program Report for: January 2019 / Q2 2018-19 CY

Release Date: March 7, 2019

GMP Dashboard

Table M-1	DEC 2018	JAN 2019	2018-19 YTD	Var. from Last YTD
Western Canadia	ın GHTS Perf	formance (Da	ys)	
Total Time in System	41.6	45.8	42.1	-9.7%
Average Days In Store – Country	26.2	29.3	25.2	-12.2%
Loaded Transit Time	7.5	7.1	6.5	8.3%
Average Days In Store – Terminal	7.9	9.4	10.4	-12.6%
Total Traffic ('000) tonnes)			
Primary Elevator Shipments	4,024.3	4,394.6	26,025.8	9.9%
Railway Shipments (all Western Canada traffic)	4,925.9	4,332.6	28,527.0	7.0%
Western Port Terminal Shipments	3,843.2	2,717.2	19,248.4	6.6%
Railway Performa	ance			
Avg. Loads on Wheels (Cars)	14,305	13,634	12,268	8.3%
Total Western Port Car Cycle (days)	16.2	16.3	15.4	0.3%
Port Performance				
Western Port Unloads (Number of Cars)	33,023	35,730	213,741	6.3%
Vessel Time in Port (days)	10.8	11.4	10.1	6.3%

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

Railway grain shipments from Western Canada fell to just over 4.3 MMT in January, down 12.0% from December's 4.9 MMT. However, year-to-date tonnage stood 7.0% higher at 28.5 MMT. Relatively mild conditions as winter set in supported good performance throughout the GHTS during the second quarter of the crop year. Port shipments for January totaled 2.7 MMT, a 29.3% decline from December volumes due largely to the close of navigation on the Seaway with a decrease in Thunder Bay shipments. Year-to-date shipments from ports have increased by 6.6%. Accompanying the growth in shipments, is a 11.4-day average in the amount of time vessels spent in port in January, with the first half of the crop-year average measuring 10.1 days.

Highlights for January 2019 and Second Quarter 2018-19 CY

Traffic and Movement (page 2)

- Primary-elevator shipments were 26.0 MMT in the first half of the 2018-19 crop year, 9.9% more than last year.
- Total Western Canadian rail shipments (from all primary/process elevators and producer-car sites) fell 12.0% from December, to just over 4.3 MMT. Despite this, stronger shipments through much of the first half of the 2018-19 crop year helped lift total traffic volume by 7.0%, to 28.5 MMT.
- Crop-year-to-date shipments from Western Canadian ports totaled 19.2 MMT, up 6.6% from last year.

System Efficiency and Performance (page 4)

- Average weekly primary-elevator stocks decreased by 2.4% from last year. The average days-in-store was down 12.2%.
- Average weekly port-terminal stocks decreased 1.2% from the same period last year, while average days-in-store fell by 12.6%.
- Railcar cycle times increased in January, with the preliminary average for Western Canadian movements rising to 16.3 days from 16.2 days in December. The average for the first half also nudged 0.3% higher, remaining effectively unchanged from the 15.4-day average reported a year earlier.
- The first-half average for vessel time in port is 10.1 days, a 6.3% increase from that observed in the previous crop year.
- Port-terminal out-of-car time fell to 11.9% at Vancouver in January from 14.2% in December, and to 2.5% at Prince Rupert from 11.5%. At Thunder Bay the out-of-car time fell to 0.6% from 3.3% the previous month.

Commercial Relations (page 6)

- Average primary-elevation charges rose 0.3% over the course of the first half of the crop year.
- Both CN and CP increased their single-car freight rates in the 2018-19 crop year. Successive increases in August, September and October lifted CN's rates on movements to the West Coast and Thunder Bay by 13.8%, and 23.4% respectively. These rates remained unaltered through the second quarter. CP limited its initial rate increases to the Thunder Bay corridor but followed up with broader increases in October. These were again escalated in January 2019. At the close of the second quarter, CP's single-car rates into Vancouver and Thunder Bay had risen by 7.7% and 17.0% respectively.
- Average terminal-elevation charges rose 0.1% during the first half of the crop year.

Infrastructure (page 6)

• The GHTS's country-elevator network posted a net increase of two facilities in the first half of the 2018-19 crop year, with the total inching up to 402 from 400. This was largely due to the licensing and delicensing of several smaller facilities. Hidden beneath these statistics were six newly constructed loop-track facilities, two operated by G3 Canada Limited, two by Viterra Inc., and one apiece by GrainsConnect Canada and Paterson Grain. These additions, along with continued capacity expansion efforts, added another 284,300 tonnes of storage to the system, which reached a record 8.6 MMT.

Production and Supply

Statistics Canada's November survey for 2018 crop production in Western Canada stands at 71.1 MMT, a 1.2% decrease from the 2017 harvest but registering among the largest crops grown. This production estimate stands relatively consistent with the model-based estimate released by Statistics Canada in September.

Coupled with carry-forward stock of 9.8 MMT at the end of July 2018, 14.6% more than in 2017, the overall grain supply is estimated to be 80.9 MMT. The projected supply is 0.5% greater than that of the previous year and will underpin continuous demands on the GHTS throughout the coming crop year.

Table M-2:	2018	2017	Var. from Last Yr.
Production & Carry Over (000's tonnes)			
Western Canada Total Production	71,101.2	71,977.2	-1.2%
Western Canada On Farm & Primary Elevator Carry Forward Stock	9,824.6	8,574.0	14.6%
Total Grain Supply	80,925.8	80,551.2	0.5%

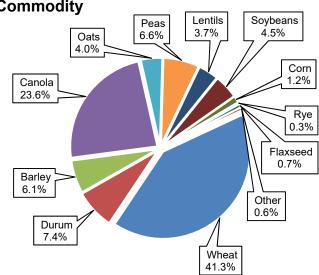
Traffic and Movement

With relatively mild conditions during January, producer deliveries stayed strong, averaging just over 0.9 MMT per week for the month. Average weekly primary-elevator stock levels, at 3.6 MMT, provided adequate supply throughout the first half of the 2018-19 shipping program.

Table M-3	JAN 2019	2018-19 YTD	Var. from Last YTD	
Primary Elevator Shipments	(000's tonnes	s)		
Manitoba	435.4	4,994.9	2.0%	
Saskatchewan	2,537.9	14,157.7	23.3%	
Alberta	1,374.3	6,651.8	-6.9%	
British Columbia	47.0	221.4	36.0%	
Total	4,394.6	26,025.8	9.9%	
Western Canada Railway Traffic (000's tonnes)				
Shipments to Western Ports	3,229.8	22,686.3	11.5%	
Shipments to Eastern Canada	358.8	1,721.6	4.8%	
Shipments to US & Mexico	686.4	3,746.7	-12.8%	
Shipments Western Domestic	57.6	372.4	-1.1%	
Total	4,332.6	28,527.0	7.0%	
Western Port Unloads (Number of Cars)				
Vancouver	25,837	133,406	4.6%	
Prince Rupert	6,967	33,757	14.7%	
Thunder Bay	2,926	46,578	5.7%	
Total	35,730	213,741	6. 3%	

Table M-3	JAN 2018	2018-19 YTD	Var. from Last YTD	
Terminal Elevator Shipments (000's tonnes)				
Vancouver	2,044.1	11,937.8	5.6%	
Prince Rupert	521.1	3,024.4	15.9%	
Churchill	0.0	26.9	n/a	
Thunder Bay	152.0	4,259.3	2.9%	
Total	2,717.2	19,248.8	6.6%	



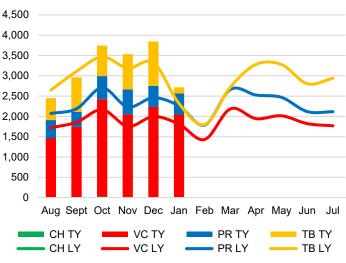


Total YTD = 26.0 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators grew in the first half, registering 9.9% more than the crop-year-to-date total for the previous year. Wheat, including durum, and canola continue to constitute the largest proportion of the movement at 72.3%. Movement of peas and lentils accounted for just 10.3% of the total as tariff and non-tariff trade barriers continue to challenge the marketing of these pulse crops.

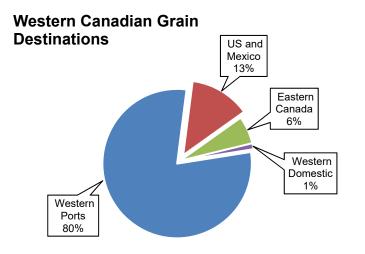
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1



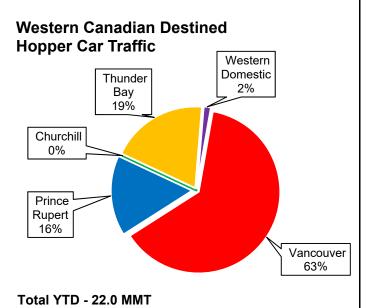
Bulk shipments out of the western ports grew in the first half of the 2018-19 crop year, registering a 6.6% increase on a year-over-year basis. Prince Rupert experienced growth of nearly 16.0%, while Vancouver and Thunder Bay recorded more modest gains of 5.6% and 2.9% respectively.



Total YTD = 28.5 MMT

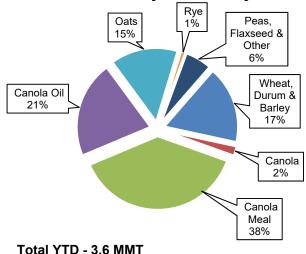
GMP Data Tables 2B-1, 2B-8 & 2B-15

Railway grain shipments from Western Canada totaled 28.5 MMT in the first six months of the 2018-19 crop year, a 7.0% gain over that handled in the same period a year earlier. The majority, about 22.7 MMT, or 80%, was directed to Western Canadian ports in support of offshore sales; an 11.5% increase over what had been handled a year earlier. This was complemented by a 4.8% gain on movements into Eastern Canada, which reached 1.7 MMT. Running counter to these gains were decreases in Western Domestic shipments, which fell by a modest 1.1%, and a more substantive 12.8% decline in shipments to the US and Mexico.



Over 95% of the tonnage directed to destinations within Western Canada moves in covered hopper cars. During the first half of the 2018-19 crop year this amounted to just under 22.0 MMT, up 11.0% from the same period a year earlier. On the receiving end, 63% of these hopper cars were destined to Vancouver, which remains the port of choice for exporting grain, given its ready access to Asia-Pacific markets, favourable logistical economics and year-round operations. Hopper-car shipments to Vancouver increased by 11.2% during this period. Prince Rupert and Thunder Bay posted gains of 23.9% and 2.4% respectively. Conversely, Western Canadian shipments fell by 1.6%.

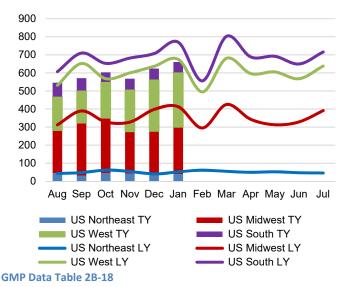
US Destined Grain by Commodity



GMP Data Table 2B-18

Total railway shipments into the US reached almost 3.6 MMT in the first six months of the 2018-19 crop year, a reduction of 13.5% from that handled in the same period a year earlier. Over 80% of these shipments are directed into the Midwestern and Western US, with canola and canola products dominating.

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



System Efficiency and Performance

Average primary-elevator stocks grew steadily throughout the first half, climbing from 2.9 MMT in August to 3.8 MMT in January for a half-year average of 3.6 MMT. Overall space in the country system was good. In January country stocks utilized 75% of the working capacity of the network. By province, stocks ranged from 66% in British Columbia, to 70% and 73% in Manitoba and Saskatchewan respectively and 85% in Alberta.

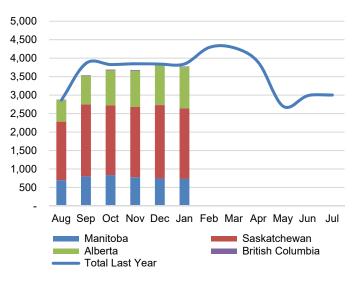
The average days-in-store in the primary-elevator system for the first half of the crop year decreased from last year, falling 12.2% to 25.2 days.

Table M-4	JAN 2019	2018-19 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	3,772.4	3,567.8	-2.4%
Average Days in Store	29.3	25.2	-12.2%
Railway Operations (days)			
Cycle Time to Western Ports	16.3	15.4	0.3%
Cycle Time to Eastern Canada	20.3	20.6	-12.0%
Cycle Time to US	27.9	25.9	-3.9%
Loaded Transit to Western Ports	7.1	6.5	8.3%
Loaded Transit to Eastern Canada	9.9	9.6	-12.2%
Loaded Transit to US	10.8	10.6	-7.5%
Rail Fleet in Grain Service	23,397	22,857	6.9%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,208.5	1,201.5	-1.2%
Average Days in Store	9.4	10.4	-12.6%
Port Unloads (hopper cars)	35,730	213,741	6.3%
Terminal Out-of-Car Time	9.5%	11.4%	11.8%
Western Canada Port Operations			
Average Vessel Time in Port (days)	11.4	10.1	6.3%

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



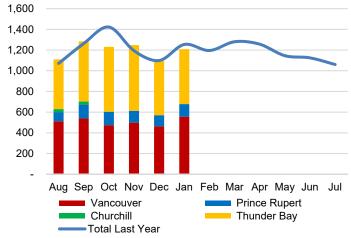
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary elevator stocks ended the last crop year averaging 3.0 MMT in store. In August, they pulled back slightly to average 2.9 MMT before reversing direction and rising to average 3.8 MMT during the second quarter of the 2018-19 crop year. Wheat, including durum, and canola, comprise 70% of the total stock. At 18% of the stock, barley, oats and peas made up much of the balance

Average Weekly Terminal Elevator Stocks (000's tonnes)

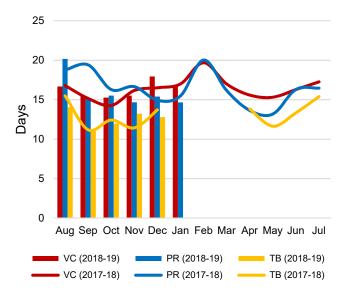


GMP Data Table 5C-2

Overall terminal elevator stocks averaged 1.2 MMT in the first half of the crop year, 1.2% less than the previous crop year. In January, stock levels grew at Vancouver, while staying relatively constant at Prince Rupert. Thunder Bay stock held constant following the close of navigation on the Seaway. Pacific Seaboard stocks are now presented separately for Vancouver and Prince Rupert. Wheat, including durum, and canola, comprise over 78% of the total stock. In January, western ports utilized only 69% of their overall working capacity.



Railway Cycle Times to Western Ports (days)

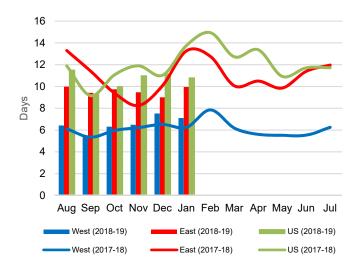


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 15.4 days in the first half of the 2018-19 crop year, up by a marginal 0.3%, but effectively unchanged from that posted a year earlier. This result was primarily shaped by increases in the Vancouver and Thunder Bay corridors, which rose by 2.0% and 0.3% respectively. A 5.6% reduction in the cycle time of movements in the Prince Rupert corridor helped contain the overall rise.

Car cycles to Eastern Canada showed a sharp decrease, falling by 12.0%, to an average of 20.6 days from 23.4 days a year earlier. Similarly, the car cycle for movements into the United States fell by 3.9%, to an average of 25.9 days from the 27.0-day average posted in the first half of the previous crop year.

Average Loaded Transit Times (days)

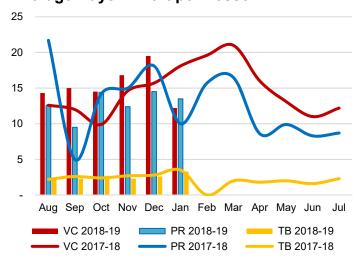


GMP Data Tables 5B-4, 5B-8, 5B-12

Loaded transit time for traffic destined to Western Canadian ports averaged 6.5 days in the first half of the 2018-19 crop year, up 8.3% from the 6.0-day average posted in the same period a year earlier. This was primarily the result of increases in the Thunder Bay and Vancouver corridors, which rose by 14.0% and 10.8% respectively. Running counter to these was the average in the Prince Rupert corridor, which fell by 4.4%.

The average loaded transit time associated with movements into Eastern Canada declined by 12.2%, to 9.6 days from 10.9 days the year previous. The corresponding average for US-destined traffic declined by a lesser 7.5%, to 10.6 days from the 11.5-day average posted twelve months earlier.

Average Days in Port per Vessel

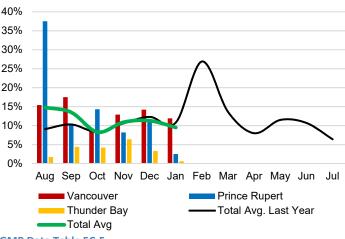


GMP Data Table 5D-1

In January, the overall average time vessels were in port waiting and loading grain grew to 11.4 days from 10.8 days the month before. The crop-year average stands at 10.1 days, 6.3% higher than that registered in the previous crop year. While Vancouver registered an appreciable month-over-month decrease, the other ports were relatively constant. For the month of January, days in port stood at 12.2 for Vancouver, 13.5 for Prince Rupert and 3.3 for Thunder Bay.



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).

The aggregate measure for all ports declined to 9.5% in January from 11.3% in December. Terminal out-of-car time at Vancouver fell to 11.9% in January and to 2.5% and 0.6% at Prince Rupert and Thunder Bay respectively.

Commercial Relations

Table M-5	Q2	Index	% Change
Rates: \$CDN per tonne	2018-19	(1999=100)	YTD
Average Primary Elevation	16.27	135.6	0.3%
Rail to Vancouver			
CN	56.10	152.9	13.8%
СР	57.17	154.8	7.7%
Rail to Pr. Rupert			
CN	56.10	135.1	13.8%
Rail to Thunder Bay			
CN	55.51	172.4	23.4%
СР	49.52	165.1	17.0%
Average Terminal Elevation	14.38	157.7	0.1%

Note: Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the first half of the 2018-19 crop year (as at 31 January 2019). Railway freight rates reflect average published single-car rates, and do not include multi-car incentives (\$4/tonne for 50+car blocks and \$8/tonne for 100+ car blocks).

Both CN and CP increased their single-car freight rates in the 2018-19 crop year. CN advanced successive rate increases in August, September and October, which by the close of the first quarter had effectively lifted the rates on movements to the West Coast and Thunder Bay by 13.8%, and 23.4% respectively. CN maintained these rates through the second quarter. In comparison, CP limited its beginning-of-the-crop-year increases to

the Thunder Bay corridor but followed up with broader increases in October. At the end of the first quarter these actions had effectively raised the rates on traffic destined to Vancouver and Thunder Bay by 5.8% and 14.7% respectively. These rates were maintained until the beginning of January 2019 when the carrier instituted escalations amounting to nearly 2.0%. At the close of the first half CP's single car rates into Vancouver and Thunder Bay had been raised by 7.7% and 17.0% respectively.

Commercial Developments

Fraser Grain Terminal receives approval:

On 9 November 2018 the Vancouver Fraser Port Authority approved a project permit for the construction of a grain export facility on federal lands located along the Fraser River in Surrey, British Columbia, adjacent to Fraser Surrey Docks. Fraser Grain Terminal, a wholly owned subsidiary of Parrish and Heimbecker Ltd. (P&H), will expand the capacity of the existing joint venture grain facility at the site to handle 4 million tonnes annually. The new terminal will include: an unloading station and transfer tower with fully enclosed conveying equipment and modern dust suppression system; 25 steel storage bins with 72,000 tonnes of storage capacity (in addition to 15,000 tonnes of existing storage); a travelling shiploader with telescopic cascading spout; semi-loop rail track and holding tracks to reduce shunting during unloading; a container loading facility and storage yard; a rail and truck loading facility; as well as an administration building and maintenance shop. Work commenced in December 2018 with completion targeted for December 2020. Around this same time P&H also announced that it had formally agreed to partner with GrainsConnect Canada in building and operating the new facility, with the latter taking an equity position in what now would be a joint venture. This investment was widely regarded as an important milestone in GrainsConnect's efforts to secure an outlet for its growing network of inland grain terminals.

Investigation into rail service issues launched: On 14 January 2019 the Canadian Transportation Agency (Agency) announced that it had initiated an investigation into possible freight rail service issues in the Vancouver area based on information it had received from various shipper associations. This marked the first instance where the Agency, with the approval of the federal minister of transport, moved to exercise the new investigatory powers granted to it under the amendments made to the Canada Transportation Act in 2018. As part of the investigation, the Agency is assessing whether there is any evidence of discriminatory treatment in the handling of certain commodities, how embargoes and permits are used, and whether railway companies operating in the Vancouver area are fulfilling their service obligations. The CTA's Investigation has included a public hearing held in Vancouver on January 29th and 30th of this year and is ongoing. A written determination is expected from the Agency some time in April 2019.

Infrastructure

Apart from the railways' car fleet, GMP measures relating to infrastructure are reported on a quarterly basis. The first half of



the 2018-19 crop year saw few changes to the GHTS's physical infrastructure, all of which was contained to the country elevator network.

The first six months of the 2018-19 crop year saw the closure of 15 smaller country elevators. However, these were countered by the addition of 17 newly licensed facilities, which boosted the active network to 402 elevators from 400. More noteworthy was the fact that six of these were newly constructed loop-track facilities, two operated by G3 Canada Limited, two by Viterra Inc., and one apiece by GrainsConnect Canada and Paterson Grain. Much of this was responsible for adding another 284,300 tonnes of storage capacity to the system, which reached a record 8.6 MMT.

No alterations to the railway network were noted during the first half of the 2018-19 crop year, which remained unchanged at 17,279.9 route-miles, with just under 85% of it operated by CN and CP.

The terminal elevator network also remained unaltered throughout the first half, with 16 facilities having a combined 2.5 MMT in associated storage capacity.

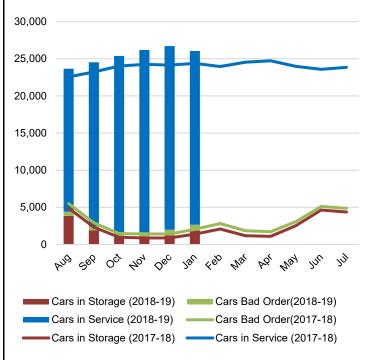
Table M-6	Q2 2018-19	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	402	40.0	0.5%
Storage Capacity (000's tonnes)	8,596.0	122.3	3.4%
Railway			
Route Miles - Major Carriers	14,610.3	98.5	0.0%
Route Miles - Shortline Carriers	2,669.6	57.5	0.0%
Route Miles - Total	17,279.9	88.8	0.0%
Average Weekly Total Hopper Car Fleet Size*	25,367	n/a	6.5%
Terminal Elevator			
Terminal Facilities (Count)	16	114.3	0.0%
Storage Capacity (000's tonnes)	2,485.0	97.2	0.0%

^{*} Hopper Car Fleet Size represents all cars in all statuses for the first half of the 2018-19 crop year.

During times of heavy demand for grain hopper cars, most of the hopper-car fleet is pressed into service. It is normal practice for railways to move cars into storage as traffic volumes decrease in the latter months of the crop year. This was the case in the 2017-18 crop year as in July 2018, a weekly average of 18,927 cars, representing 80% of the fleet was in active service. Cars in service grew from August through December with strong shipping demand before pulling back modestly in January. The average in January was 23,397 cars, with an overall-average car fleet in service during the first half of the 2018-19 crop year of 22,857,

encompassing 90% of the fleet. The balance of the fleet, comprising 10% of the rail cars, was in storage or repair status (bad order), substantially less than 20% in July 2018.

Railway Grain Fleet Size and Utilization



GMP Data Table 3B-2



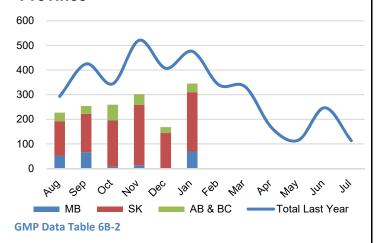
Producer Cars

No change was registered in the number of producer-car loading sites in the first half of the 2018-19 crop year. The total number of available producer-car loading locations at the end of the first half stands at 272.

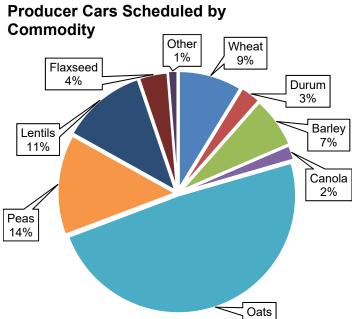
Table M-7 Producer Car Loading Sites	Q2 2018-19	Index (1999=100)	% Change YTD
Class 1 Carriers	142	22.2	0.0%
Shortline Carriers	130	200.0	0.0%
All Carriers	272	38.3	0.0%
Table M-8 Producer Cars Scheduled	Q2 2018-19	2018-19 YTD	Var. from Last YTD
Manitoba	84	208	-50.0%
Saskatchewan	628	1,113	-37.5%
Alberta & B.C.	103	234	-13.0%
Total	815	1,555	-36.9%

Producer cars scheduled this year to date are down 36.9% from the previous year. To date, the 2018-19 crop year has seen a reduction in producer-car applications received by the Canadian Grain Commission.

Producer Cars Scheduled by Province



The proportion of producer-car shipments devoted to oats has grown substantially as a decrease has been registered in the number of cars carrying other cereal crops. Shipments throughout the first half of the 2018-19 crop year continue to reflect this trend, with oats shipments comprising 49% of the total, while wheat, durum and barley combined comprise only 19%. Special crops such as peas and lentils contributed another 25% of the total volume.



49%

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

