Grain Monitoring Program Report for: December 2021

Release Date: January 18, 2022

GMP Dashboard

Table M-1	NOV 2021	DEC 2021	2021-22 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)				
Total Time in System	57.5	76.3	54.4	33.7%
Average Days In Store – Country	35.9	50.0	33.6	40.6%
Loaded Transit Time	5.9	11.5	6.6	-3.7%
Average Days In Store – Terminal	15.7	14.8	14.2	42.0%
Total Traffic ('000 tonnes)				
Primary Elevator Shipments	3,160.6	3,037.0	16,995.3	-32.7%
Railway Shipments (all Western Canada traffic)	3,340.7	2,970.4	18,287.9	-35.8%
Western Port Terminal Shipments	2,498.2	2,301.5	12,824.2	-37.6%
Railway Performance				
Avg. Loads on Wheels (Cars)	8,460	8,721	8,154	-36.6%
Total Western Port Car Cycle (days)	14.6	22.2	16.5	13.6%
Port Performance				
Western Port Unloads (Number of Cars)	23,015	24,309	136,028	-37.8%
Vessel Time in Port (days)	8.4	11.3	8.6	-23.3%

Periodic revisions and corrections to the data received by the Monitor may result in the restatement of previously calculated measurement values. As such, the values presented here should be considered to supersede those found in previous reports.

Overview

Western Canadian railway grain shipments fell by 11.1% in December 2021, to 3.0 MMT from 3.3 MMT in November. The decline reflected the ongoing effects from washouts and landslides caused by record rainfalls that severed key road and rail routes into Vancouver in mid-November. YTD shipments were similarly impacted, falling by 35.8%. Port shipments for December totaled 2.3 MMT, 7.9% less than in November, and a 44.5% decline from those in December 2020. Accompanying the month-over-month decline in shipments was an increase in the average amount of time vessels spend in port, which grew to 11.3 days in December from 8.4 in November.

Highlights for December 2021

Traffic and Movement (page 2)

- Primary-elevator shipments were 17.0 MMT in the first five months of the 2021-22 crop year, 32.7% less than last year.
- Total Western Canadian rail shipments to all destinations (from all primary/process elevators and producer-car sites) in the first five months of the 2021-22 crop year totaled 18.3 MMT, down 35.8% from the same period a year earlier.
- Bulk grain shipments from Western Canadian ports totaled 12.8 MMT in first five months of the crop year, down 37.6% from the same period last year.

System Efficiency and Performance (page 4)

- The year-to-date average weekly primary-elevator stocks decreased by 7.2% while the average days-in-store grew by 40.6%.
- Average weekly port-terminal stocks decreased 10.7% from the same period last year, while average days-in-store climbed by 42.0% on a year-over-year basis.
- The car cycle for hopper-car movements to Western Canadian ports increased by 52.1% in December 2021, with the preliminary average rising to 22.2 days from 14.6 days in November. The YTD average of 16.5 days stood 13.6% greater than that posted a year earlier. A similar increase was noted in the car cycle for movements into Eastern Canada, which rose by 15.5% to 25.4 days. However, movements into the US saw a marginal 0.3% increase, with the average cycle remaining effectively unchanged at 24.3 days.
- The year-to-date average for vessel time in port is 8.6 days, 23.3% less than that observed in the previous crop year.
- Port-terminal out-of-car time grew to 48.1% at Vancouver in December from 47.3% in November. At Prince Rupert, out-of-car time jumped from 0.0% to 30.0% in December. At Thunder Bay it grew to 7.2%, up from 2.1% the month earlier.

Production and Supply

Statistics Canada's November survey for 2021 field-crop production in Western Canada stands at 47.0 MMT, a 40.2% decrease from 2020's record 78.5 MMT harvest. This dramatic decline reflects the impact of the prairie-wide drought during the growing season. The survey of producers' harvested acreage and yield was conducted between 8 October and 12 November 2021. It resulted in a decrease in the overall production estimate of 0.6 MMT from the model-based estimate published in September.

When coupled with July's 7.1 MMT of carry-forward stocks, some 15.7% less than in 2020, the overall grain supply is estimated at 54.0 MMT. This stands 37.8% below the 2020-21 crop year's 86.9-MMT record, ranking as the smallest grain supply since the drought-reduced shortfalls of 2001 to 2003.

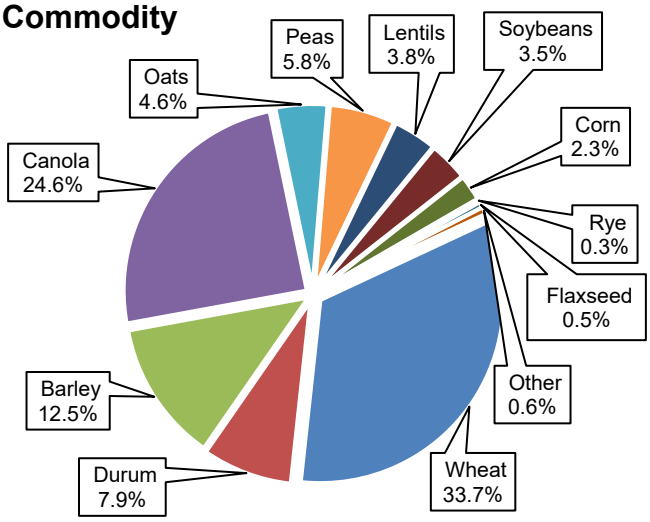
Table M-2	2021	2020	Var. from Last Yr.
Production & Carry Forward (000's tonnes)			
Western Canada Total Production	46,967.2	78,527.7	-40.2%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,066.1	8,378.6	-15.7%
Total Grain Supply	**54,033.3**	**86,906.3**	**-37.8%**

Traffic and Movement

December producer deliveries declined, averaging just over 0.6 MMT per week. Average weekly primary-elevator stock levels grew to 4.1 MMT from 4.0 MMT in November, with good space in the elevator system throughout the month.

Table M-3	DEC 2021	2021-22 YTD	Var. from Last YTD
Primary Elevator Shipments (000's tonnes)			
Manitoba	640.3	3,712.7	-23.2%
Saskatchewan	1,281.6	7,842.7	-42.7%
Alberta	1,092.8	5,298.7	-19.8%
British Columbia	22.3	141.2	5.2%
Total	**3,037.0**	**16,995.3**	**-32.7%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	2,291.4	14,083.6	-40.4%
Shipments to Eastern Canada	105.8	964.5	-38.3%
Shipments to US & Mexico	487.8	2,839.8	-3.4%
Shipments Western Domestic	85.5	400.0	16.4%
Total	**2,970.4**	**18,287.9**	**-35.8%**
Western Port Unloads (Number of Cars)			
Vancouver	14,155	88,221	-37.9%
Prince Rupert	2,911	11,570	-55.2%
Churchill	0.0	0.0	-100.0%
Thunder Bay	7,243	36,237	-27.1%
Total	**24,309**	**136,028**	**-37.8%**
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,177.4	8,261.7	-38.2%
Prince Rupert	232.8	973.5	-59.0%
Churchill	0.0	0.0	-100.0%
Thunder Bay	891.3	3,589.0	-23.7%
Total	**2,301.5**	**12,824.2**	**-37.6%**

Primary Elevator Shipments by Commodity

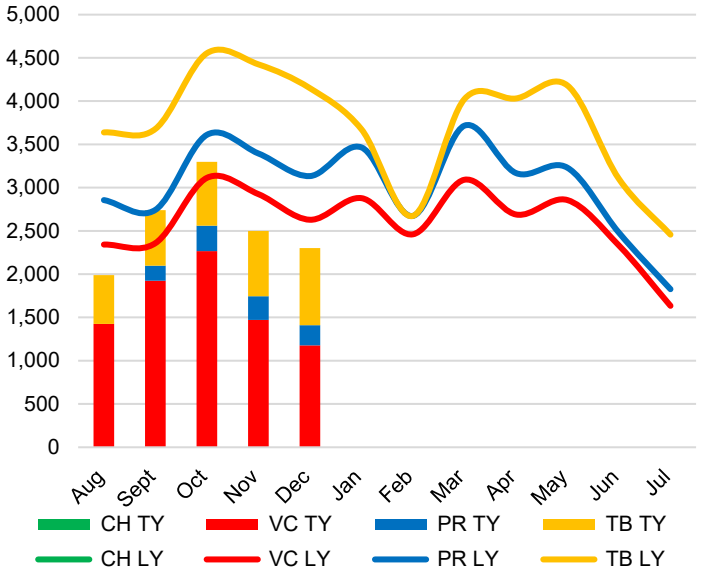


Total YTD = 17.0 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators fell in the first five months of the crop year, registering 32.7% less than in same period the previous year. Wheat, including durum, and canola continue to constitute the largest proportion of the movement at 70.8%. Movement of peas and lentils contributed 9.6% of the total.

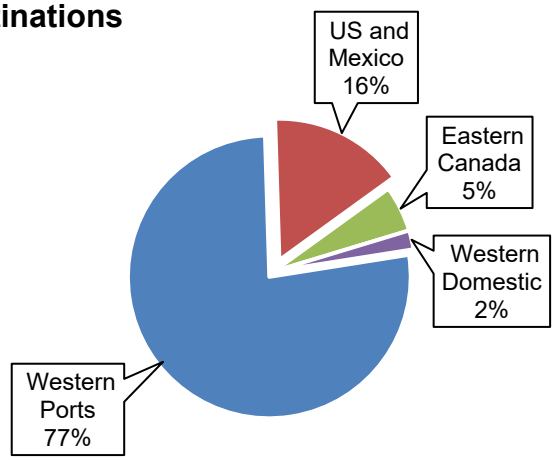
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Bulk shipments out of the western ports fell in the first five months of the 2021-22 crop year, registering a decrease of 37.6% from the same period in the previous year. All ports registered significant declines in activity mirroring the overall reduction in grain supply. Vancouver was down 38.2%, Prince Rupert was off by 59.0% and Thunder Bay shipments recorded a decrease of 23.7%.

Western Canadian Grain Destinations

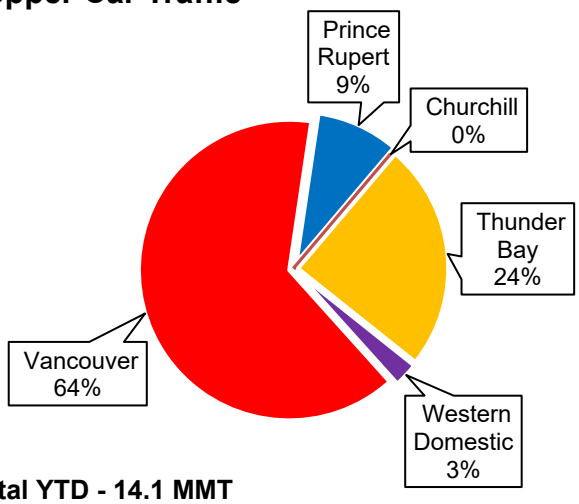


Total YTD = 18.3 MMT

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

Railway grain shipments from Western Canada totaled just under 18.3 MMT in the first five months of the 2021-22 crop year, a 35.8% decrease from the 28.5 MMT handled a year earlier. The majority, about 14.1 MMT, was directed to Western Canadian ports in support of export sales. This represented a 40.4% decline from what had been shipped in the same period the previous year, with the reduction partially offset by a 16.4% increase in Western Domestic traffic. A lesser 38.3% decline was noted on movements into Eastern Canada, while shipments to the US and Mexico fell by 3.4%.

Western Canadian Destined Hopper Car Traffic

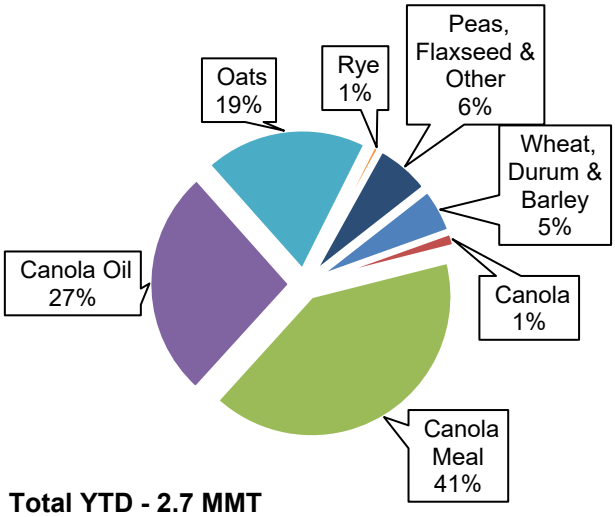


Total YTD - 14.1 MMT

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

Over 95% of the tonnage directed to destinations within Western Canada moves in covered hopper cars. In the first five months of the 2021-22 crop year this amounted to almost 14.1 MMT, down 38.9% from the previous year. Sixty-four percent of these hopper cars were destined to Vancouver, which remains the port of choice for exporting grain, given its access to Asia-Pacific markets and concentration of export terminal facilities. Hopper-car shipments through Vancouver during this period fell by 41.1%. The west-coast reduction was broadened by a 52.3% decline in Prince Rupert traffic as well, but tempered by a 16.0% gain in Western Domestic volumes. Shipments to Thunder Bay also declined, with volume down 26.8%, while the port of Churchill reported no export grain shipments at all.

US Destined Grain by Commodity

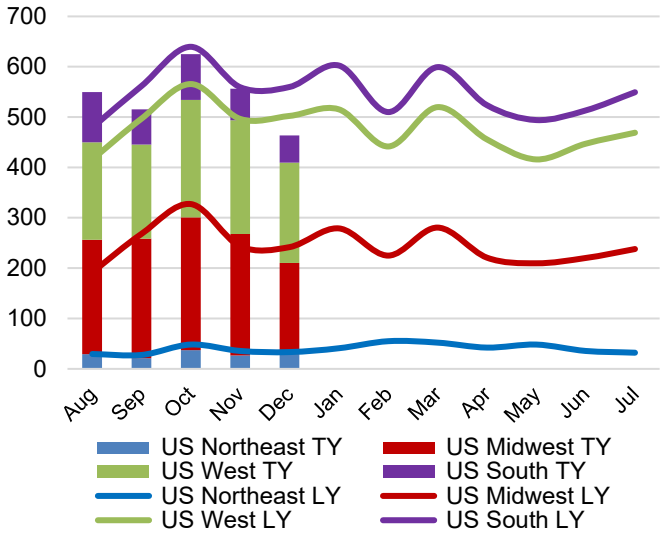


Total YTD - 2.7 MMT

GMP Data Table 2B-18

Total railway shipments into the US reached over 2.7 MMT in the first five months of the 2021-22 crop year, down 3.2% from the tonnage moved in the same period a year earlier. Over 80% of these shipments were directed into the US Midwest and West, with canola and canola products being dominant.

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



GMP Data Table 2B-18

System Efficiency and Performance

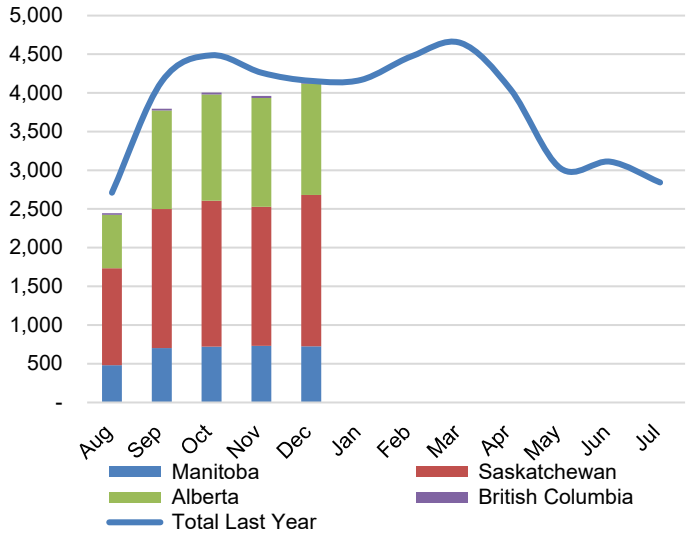
Primary elevator stocks grew modestly in December, averaging 4.1 MMT as producer deliveries declined with the onset of winter. Overall space in the country system was good. Country stocks utilized 76% of the working capacity of the network. By province, stocks ranged from 69% and 71% of working capacity in Manitoba and Saskatchewan respectively, to 89% in Alberta, and 100% in British Columbia.

The average days-in-store in the primary-elevator system for the first five months of the crop year climbed from the same period last year, rising 40.6% to 33.6 days.

Table M-4	DEC 2021	2021-22 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	4,148.1	3,676.4	-7.2%
Average Days in Store	50.0	33.6	40.6%
Railway Operations (days)			
Cycle Time to Western Ports	26.6	16.5	13.6%
Cycle Time to Eastern Canada	25.1	25.4	15.5%
Cycle Time to US	27.3	24.3	0.3%
Loaded Transit to Western Ports	11.5	6.6	-3.7%
Loaded Transit to Eastern Canada	11.6	12.2	5.3%
Loaded Transit to US	11.2	9.9	-2.8%
Rail Fleet in Grain Service	16,893	16,297	-12.3%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,012.8	1,154.3	-10.7%
Average Days in Store	14.8	14.2	42.0%
Port Unloads (hopper cars)	24,309	136,028	-37.8%
Terminal Out-of-Car Time	37.9%	21.5%	50.3%
Western Canada Port Operations			
Average Vessel Time in Port (days)	11.3	8.6	-23.3%

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

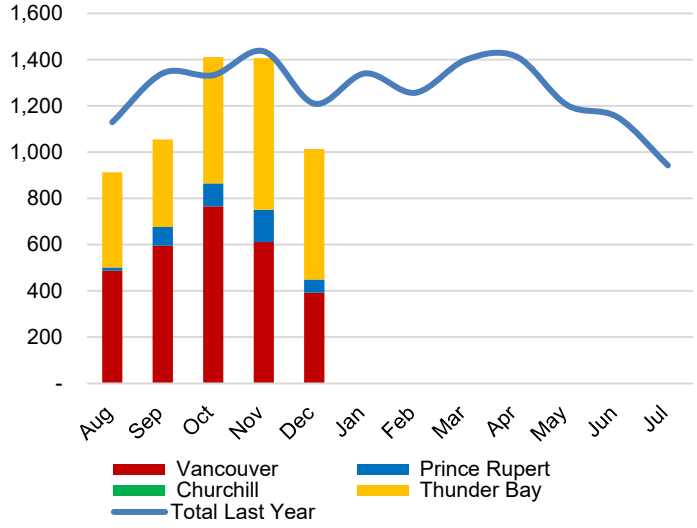
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary elevator stocks ended the last crop year averaging 2.8 MMT in store. In August, they pulled back further to average 2.4 MMT before rising to 4.1 MMT in December. Wheat, including durum, and canola, comprise 73% of the total stock. At 18% of the stock, barley, oats and peas made up much of the balance.

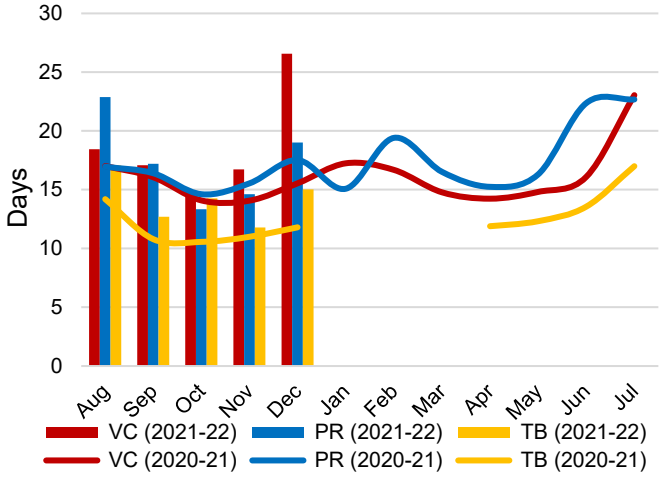
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

Overall terminal elevator stocks averaged 1.0 MMT in December, a steep decline from the previous month as rail access to Vancouver was cut off by washouts. Average weekly stock levels fell at all three operating ports with an overall decline of 28.0% from that seen a month earlier. Wheat, including durum, and canola, comprise just over 82% of the total stock. In November, western ports utilized just 53% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

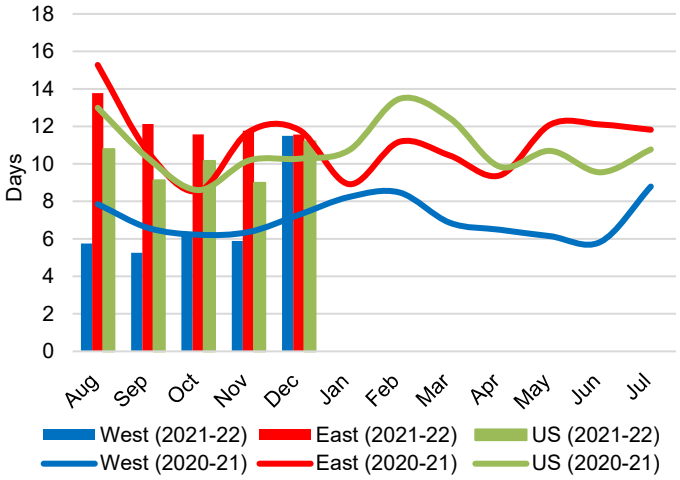


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 16.5 days in the first five months of the 2021-22 crop year, up 13.6% from the 14.5-day average reported a year earlier. This was due to increases in two of the primary corridors, with the Vancouver average increasing 16.3%, and the Thunder Bay average 20.0%. The Prince Rupert average fell by 1.6%.

The car cycle into Eastern Canada also increased, rising by 15.5%, to an average of 25.4 days from 22.0 days a year earlier. A marginal 0.3% increase was noted in the cycle for US movements, which rose to an average of 24.3 days from 24.2 days the previous December.

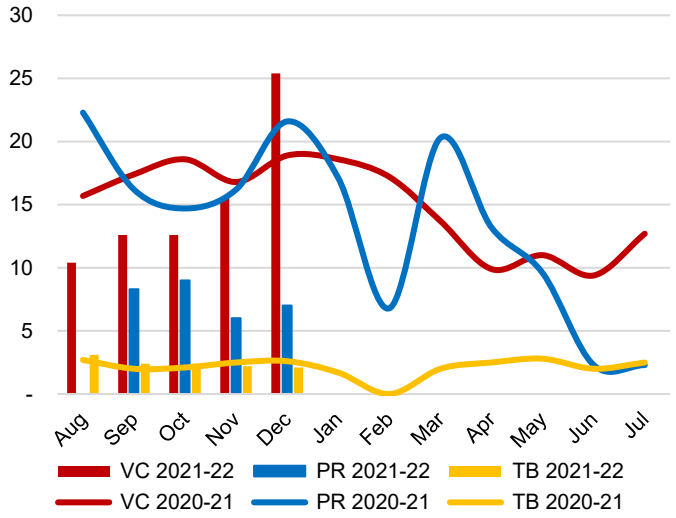
Average Loaded Transit Times (days)



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

Loaded transit time for traffic destined to Western Canadian ports averaged 6.6 days in the first five months of the 2021-22 crop year, down 3.7% from the 6.9-day average posted a year earlier. This was driven by reductions in the Vancouver and Prince Rupert corridors, which fell by 1.2% and 24.8% respectively. These declines were partially offset by a 6.3% increase in the Thunder Bay corridor average. Similarly, the average into Eastern Canada rose by 5.3%, to 12.2 days from 11.6 days a year earlier. The average on US-destined traffic fell by 2.8%, to 9.9 days from 10.2 days.

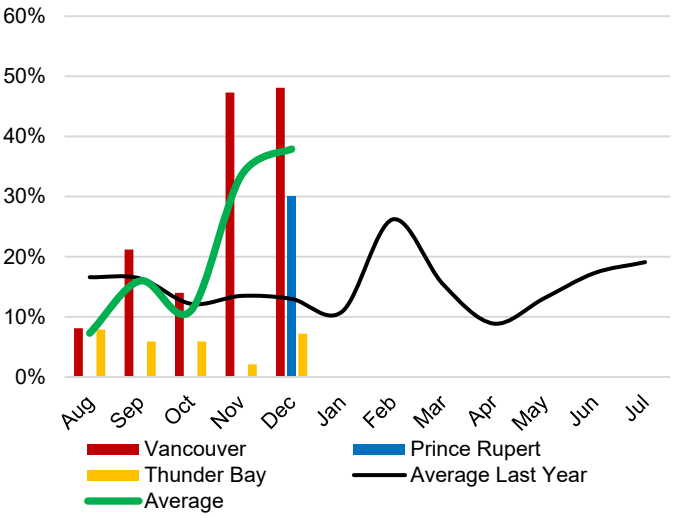
Average Days in Port per Vessel



GMP Data Table 5D-1

In December, the overall average time vessels were in port waiting and loading grain was 11.3 days, 3.5% less than was the case in December 2020. Despite this lower year-over-year level, the average is 34.5% higher than that seen in the previous month. While both the Vancouver and Prince Rupert averages grew from November's level, the Thunder Bay average declined slightly from that seen in the previous month. In December, the average days in port stood at 25.4 for Vancouver, 7.0 for Prince Rupert and 2.1 at Thunder Bay.

Port Terminal Out-of-Car Time (% of total operating hours)



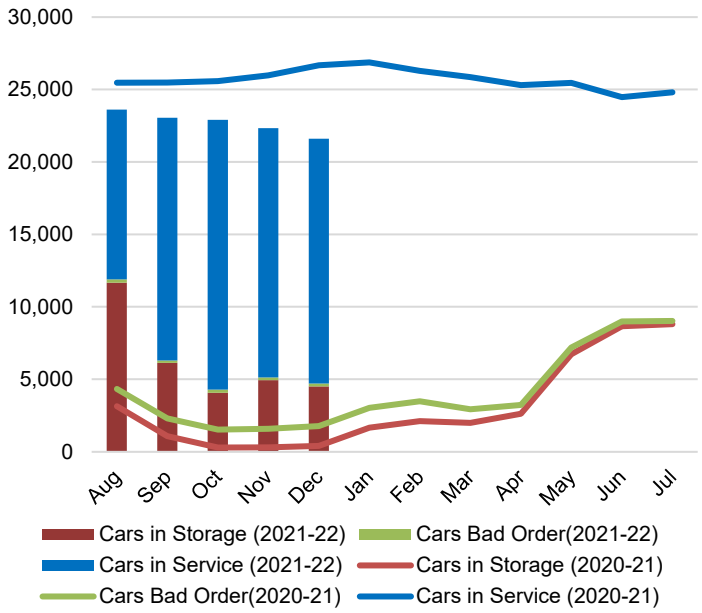
GMP Data Table 5C-5

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 rose to 37.9% in December from 33.5% in November. Terminal out-of-car time at Vancouver increased to 48.1% and at Prince Rupert to 30.0%. Thunder Bay registered an increase to 7.2% for time out-of-cars.

Railway Grain Fleet Size and Utilization

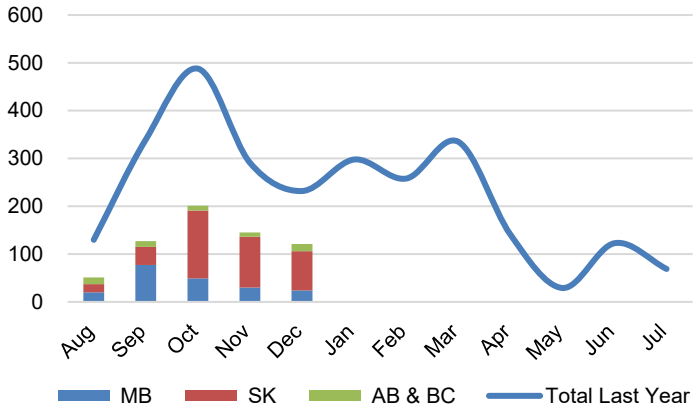


GMP Data Table 3B-2

During times of heavy demand for grain hopper cars, nearly all the hopper-car fleet is placed in 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 2020-21 crop year as in July 2021, a weekly average of 15,781 cars representing 64% of the fleet, was in active service. Cars in service fell further in August, to an average of 11,713 per week before reversing direction and climbing to 18,617 per week in October. By December they saw a pullback to 16,893 cars in service. The average cars in service for the first five months of this crop year represents 72% of the total fleet. The balance of the fleet, comprising 28% of the rail cars, was in storage or repair status (bad order).

Producer Cars

Producer Cars Scheduled by Province



GMP Data Table 6B-2

Producer car shipments scheduled for December 2021 were 47.8% less than those in December a year ago. The previous crop year saw oats shipments constituting 55% of overall producer cars scheduled, while the first five months of the 2021-22 crop year registered oats increasing to 57% of the overall producer-car number. Other cereal-crop shipments constitute 31% of the total.

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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 and in an open data format (GMODS) on Quorum's website at: www.grainmonitor.ca

Quorum welcomes questions and comments on the reports and data. Please contact us by either phone or email