

GMP Dashboard

Table M-1	SEP 2021	OCT 2021	2021-22 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)				
Total Time in System	45.7	48.3	47.9	18.6%
Average Days In Store – Country	27.0	30.2	28.9	22.9%
Loaded Transit Time	5.2	6.1	5.7	16.6%
Average Days In Store – Terminal	13.5	12.0	13.3	31.7%
Total Traffic ('000 tonnes)				
Primary Elevator Shipments	4,865.2	3,658.6	10,797.7	-26.7%
Railway Shipments (all Western Canada traffic)	4,525.6	4,689.2	11,976.9	-28.2%
Western Port Terminal Shipments	2,738.6	3,192.4	7,919.4	-33.8%
Railway Performance				
Avg. Loads on Wheels (Cars)	8,362	10,086	7,851	-36.1%
Total Western Port Car Cycle (days)	15.9	13.5	15.5	5.3%
Port Performance				
Western Port Unloads (Number of Cars)	36,824	33,268	87,966	-32.5%
Vessel Time in Port (days)	7.9	8.3	7.8	-31.1%

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 rose by 3.6% in October 2021, to 4.7 MMT from September's 4.5 MMT. Still, lower rail volumes through the opening months of the 2021-22 crop year led to first-quarter shipments falling by 28.2%, to 12.0 MMT. Port shipments for October totaled 3.2 MMT, a 16.6% increase from September volumes. The overall first-quarter demand for shipping at both the West Coast and Thunder Bay lagged that seen in the previous crop year, with year-to-date bulk shipments from the western ports registering a decline of 33.8%. Accompanying the decrease in shipments, is an 8.3-day average in the amount of time vessels spent in port in October, with the first-quarter average measuring 7.8 days.

Highlights for October 2021 and First Quarter 2021-22 CY

Traffic and Movement (page 2)

- Primary-elevator shipments were 10.8 MMT in the first quarter of the 2021-22 crop year, 26.7% less than the previous year.
- Total Western Canadian rail shipments (from all primary/process elevators and producer-car sites) totaled 12.0 MMT in the first quarter of the 2021-22 crop year, 28.2% below the previous crop year's 16.7-MMT record.
- Bulk shipments from Western Canadian ports totaled 7.9 MMT in the first quarter of the 2021-22 crop year, down 33.8% from last crop year.

System Efficiency and Performance (page 4)

- Average weekly primary-elevator stocks declined by 9.6% from last year-to-date. The average days-in-store was up 22.9%.
- Average weekly port-terminal stocks decreased 12.0% from the same period last year, while average days-in-store grew 31.7%.
- Railcar cycle times fell sharply in October, with the preliminary average for Western Canadian movements decreasing by 15.1%, to 13.5 days from 15.9 days in September. Still, the year-to-date average rose by 5.3%, to 15.5 days from 14.7 days a year earlier.
- The first-quarter 2021-22 crop-year average for vessel time in port is 7.8 days, a 31.1% decrease from that observed in the previous crop year.
- Port-terminal out-of-car time fell to 14.0% at Vancouver in October from 21.2% in September, while holding steady at 0.0% at Prince Rupert and at 5.9% at Thunder Bay.

Commercial Relations (page 6)

- Average primary-elevation charges declined 0.4% in the first quarter of the 2021-22 crop year.
- Both CN and CP increased their single-car freight rates in the first quarter of the 2021-22 crop year. CN applied an initial 10% increase in August, which was followed by 5% increases in both September and October, effectively lifting its rates in all corridors during the first quarter by 21%. In comparison, CP initially maintained its rates in the Vancouver corridor while reducing those in the Thunder Bay corridor by 4%. These were then escalated by 4%-6% in both September and October, producing net increases of nearly 10% and 5% respectively.
- Average terminal-elevation charges held steady in the first quarter of the 2021-22 crop year.

Infrastructure (page 6)

- No changes were recorded in the country-elevator network in the first quarter, with the total number of facilities remaining at 411 and storage capacity at a record 9.3 MMT.
- Similarly, railway infrastructure remained unchanged at 17,265.7 route-miles.
- The terminal elevator network also remained unchanged in the first three months of the 2021-22 crop year, with 18 facilities and 2.8 MMT of storage.

Production and Supply

Statistics Canada's August model-based estimate for 2021 field-crop production in Western Canada stands at 47.6 MMT, a 39.4% 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 challenging conditions have resulted in several trade estimates varying widely from those of Statistics Canada. An update based on the November producer survey will be included in the Monitor's November Report.

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 54.7 MMT. This stands 37.1% below the 2020-21 crop year's 86.9-MMT record, potentially 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 Over (000's tonnes)			
Western Canada Total Production – Preliminary*	47,614.0	78,527.7	-39.4%
Western Canada On Farm & Primary Elevator Carry Forward Stock	7,066.1	8,378.6	-15.7%
Total Grain Supply	54,680.1	86,906.3	-37.1%

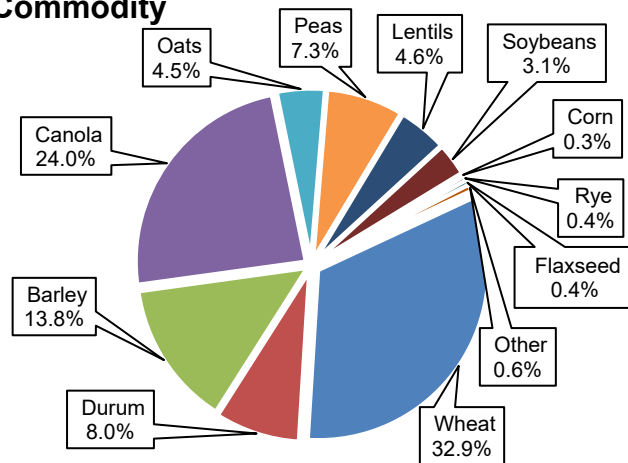
Traffic and Movement

Despite lower-overall activity throughout the post-harvest period, October deliveries still averaged 1.0 MMT per week. Weekly primary-elevator stock levels built to average 4.0 MMT, with good space available in elevator facilities across the prairies.

Table M-3	OCT 2021	2021-22 YTD	Var. from Last YTD
Primary Elevator Shipments (000's tonnes)			
Manitoba	867.5	2,435.7	-17.5%
Saskatchewan	1,523.4	5,086.0	-37.0%
Alberta	1,237.1	3,184.5	-12.2%
British Columbia	30.6	91.5	23.6%
Total	3,658.6	10,797.7	-26.7%
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	3,707.5	9,294.1	-33.0%
Shipments to Eastern Canada	245.8	652.8	-21.4%
Shipments to US & Mexico	654.9	1,766.6	0.2%
Shipments Western Domestic	81.0	263.4	19.8%
Total	4,689.2	11,976.9	-28.2%
Western Port Unloads (Number of Cars)			
Vancouver	23,058	61,663	-26.8%
Prince Rupert	2,405	5,735	-63.0%
Churchill	0	0	-100.0%
Thunder Bay	7,805	20,568	-30.6%
Total	33,268	87,966	-32.5%

Table M-3	OCT 2021	2021-22 YTD	Var. from Last YTD
Terminal Elevator Shipments (000's tonnes)			
Vancouver	2,160.9	5,508.9	-29.5%
Prince Rupert	293.7	467.3	-66.5%
Churchill	0.0	0.0	-100.0%
Thunder Bay	737.8	1,943.2	-27.0%
Total	3,192.4	7,919.4	-33.8%

Primary Elevator Shipments by Commodity

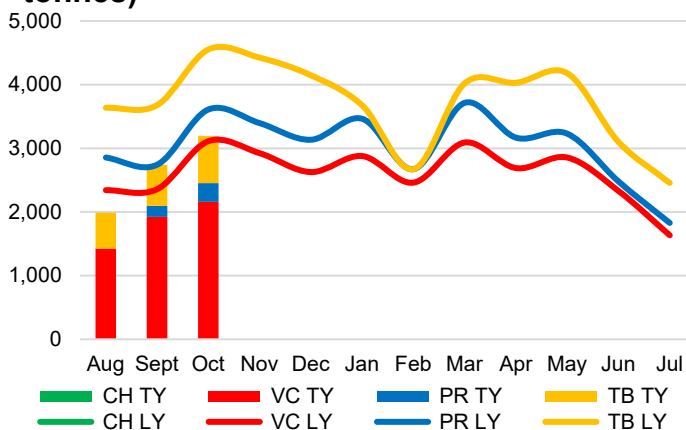


Total YTD = 10.8 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators fell in the first quarter of the 2021-22 crop year, registering 26.7% less than in the same period the previous year. Wheat, including durum, and canola continue to constitute the largest proportion of the movement at 64.9%. Movement of peas and lentils contributed 11.9% of the balance.

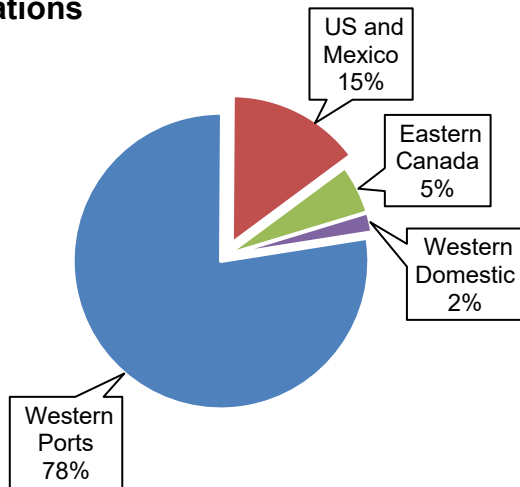
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Bulk shipments from western ports fell in the first quarter of the 2021-22 crop year, registering a 33.8% decline on a year-over-year basis. Shipments were off at all ports. Prince Rupert recorded the largest decrease at 66.5%, while Vancouver and Thunder Bay were down 29.5% and 27.0% respectively.

Western Canadian Grain Destinations

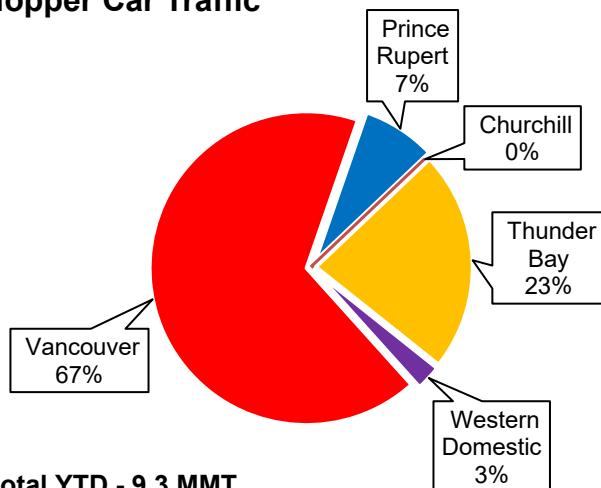


Total YTD = 12.0 MMT

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

Railway grain shipments from Western Canada fell to 12.0 MMT in the first quarter of the 2021-22 crop year, 28.2% less than the 16.7 MMT handled in the same period a year earlier. The majority, about 9.3 MMT, or 78%, was directed to Western Canadian ports in support of offshore sales; 33.0% less than what had been handled a year earlier. This decline was broadened by a 21.4% decrease in shipments to Eastern Canada. Running counter to these losses were gains in movements to Western Domestic destinations, which rose by 19.8%, and a combined 0.2% for shipments into the US and Mexico.

Western Canadian Destined Hopper Car Traffic



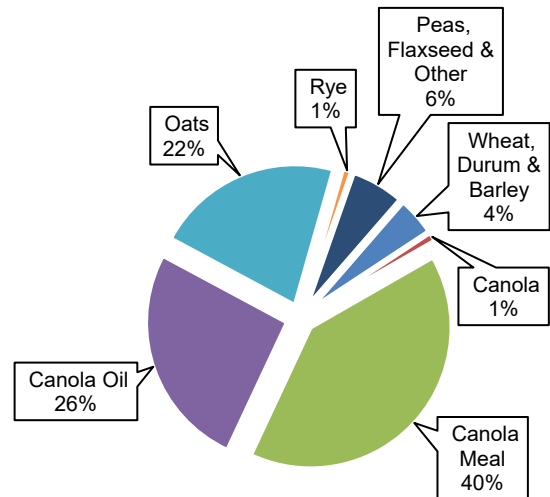
Total YTD - 9.3 MMT

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

Over 95% of the tonnage directed to destinations within Western Canada moves in covered hopper cars. During the first quarter of the 2021-22 crop year this amounted to just under 9.3 MMT, down 31.5% from a year earlier. Sixty-seven percent 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 and the concentration of export terminal facilities. A 29.4% decline in hopper-car shipments to Vancouver was largely responsible for shaping the broader traffic reduction. This was supported by equally substantive decreases in shipments to Prince Rupert, Thunder Bay, and Churchill, which fell by 55.7%, 25.5%, and 100.0% respectively. Running counter to these decreases, however, was a gain in shipments to Western Domestic destinations, which rose by 19.4%.

US Destined Grain by Commodity

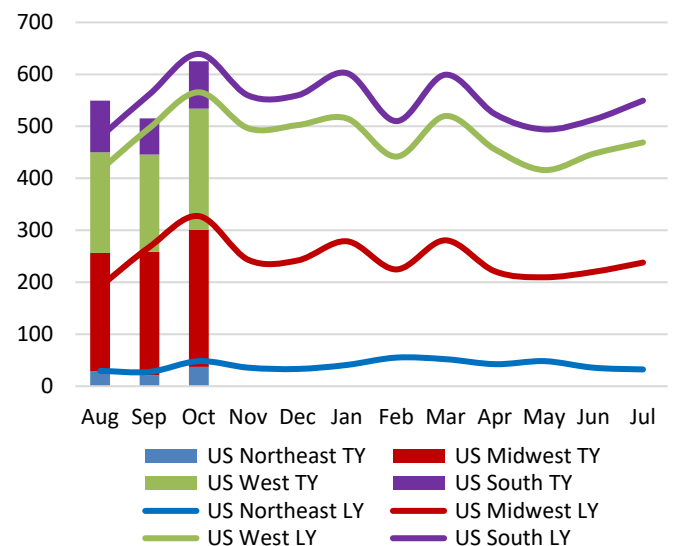


Total YTD - 1.7 MMT

GMP Data Table 2B-18

Total railway shipments into the US reached slightly under 1.7 MMT in the first quarter of the 2021-22 crop year, up a marginal 0.5% from that handled a year earlier. About 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)



GMP Data Table 2B-18

System Efficiency and Performance

Primary-elevator stocks grew steadily through the first quarter of the crop year, climbing from 2.4 MMT in August to 4.0 MMT in October. The overall first-quarter average is 3.4 MMT. Space in the country system was good throughout the fall. Country stocks utilized 74% of the working capacity of the network in October. By province, stocks ranged from 68% and 70% in Manitoba and Saskatchewan respectively, to 85% in Alberta and 95% in British Columbia.

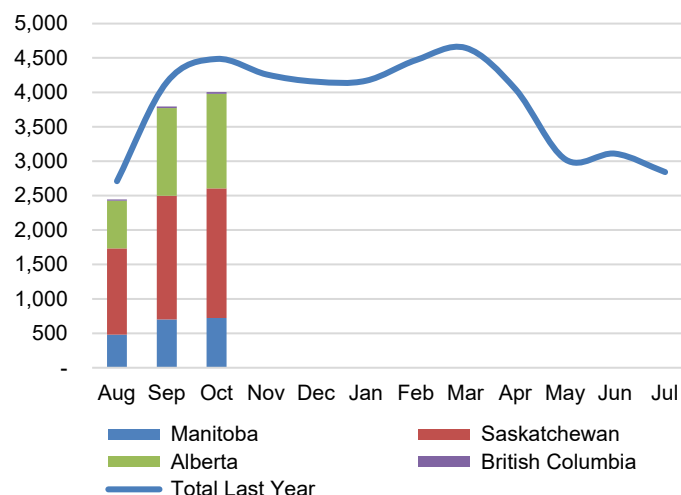
The average days-in-store in the primary-elevator system for the first quarter increased from last year, rising 22.9% to 28.9 days.

Table M-4	OCT 2021	2021-22 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	4,003.9	3,443.9	-9.6%
Average Days in Store	30.2	28.9	22.9%
Railway Operations (days)			
Cycle Time to Western Ports	13.5	15.5	5.3%
Cycle Time to Eastern Canada	21.6	25.5	15.3%
Cycle Time to US	26.3	23.8	-3.1%
Loaded Transit to Western Ports	6.1	5.7	-16.6%
Loaded Transit to Eastern Canada	10.4	12.1	6.1%
Loaded Transit to US	10.4	10.1	-1.4%
Rail Fleet in Grain Service	18,617	15,797	-30.7%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,410.8	1,120.7	-12.0%
Average Days in Store	12.0	13.3	31.7%
Port Unloads (hopper cars)	33,268	87,966	-32.5%
Terminal Out-of-Car Time	11.0%	11.8%	-21.9%
Western Canada Port Operations			
Average Vessel Time in Port (days)	8.3	7.8	-31.1%

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



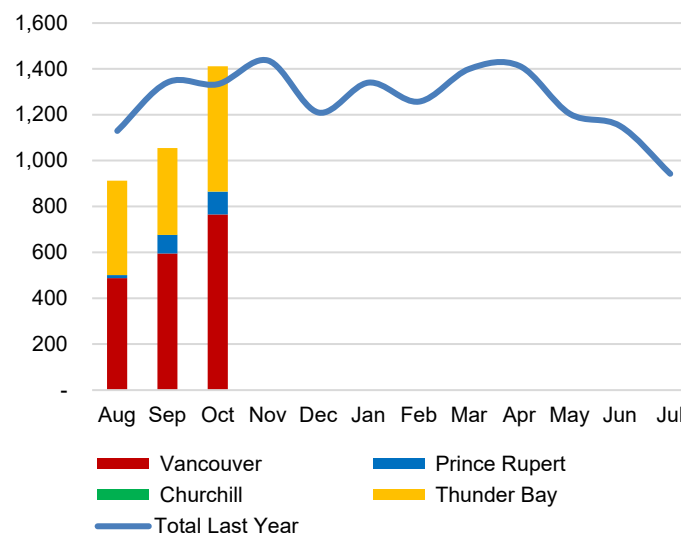
Average Weekly Primary Elevator Stocks (000's tonnes)



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 reversing direction and rising to average 4.0 MMT in October, propelled by the early harvest and deliveries direct from the field. Wheat, including durum, and canola, comprise 69% of the total stock. At 19% of the stock, barley, oats and peas made up much of the balance.

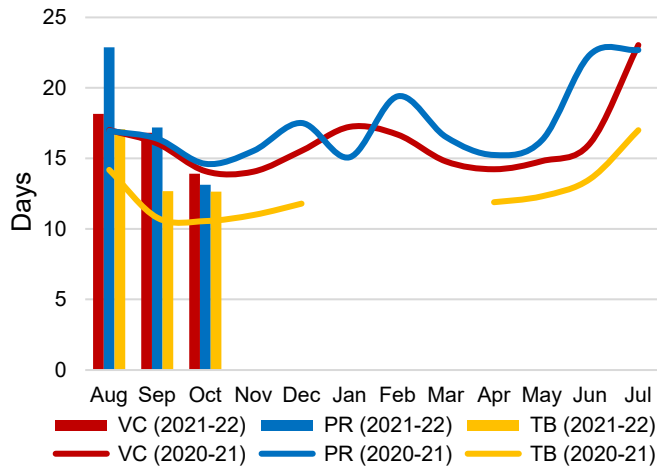
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

Overall terminal elevator stocks averaged 1.1 MMT in the first quarter of the 2021-22 crop year, 12.0% less than the previous year. Despite the overall decline, October stocks increased significantly from September 2021, posting a 33.8% month-over-month gain. Wheat, including durum, and canola, comprise over 72% of the total stock. In October, western ports utilized 73% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

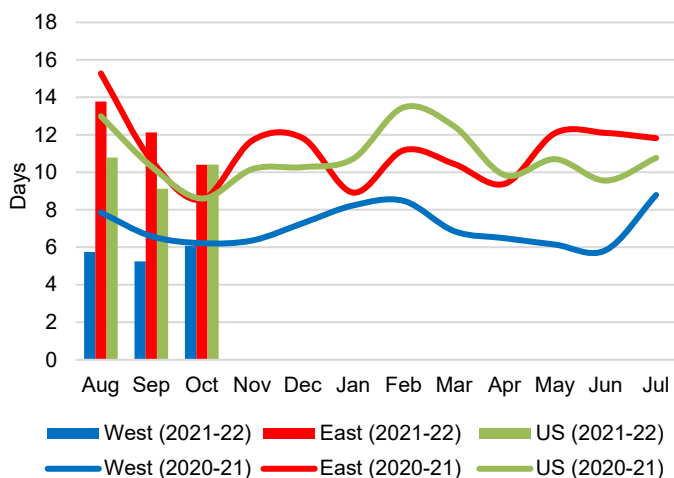


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 15.5 days in the first quarter of the 2021-22 crop year, up 5.3% from the 14.7-day average posted in the previous crop year. This result was largely shaped by increases in the Vancouver and Thunder Bay corridors, which rose by 3.7% and 18.3% respectively. The Prince Rupert average fell by 3.5%.

The average car cycle on movements into Eastern Canada also rose, increasing 15.3%, to 25.5 days from 22.2 days a year earlier. Conversely, the car cycle for movements into the United States fell by 3.1%, to an average of 23.8 days from the 24.6-day average posted in the same period of the previous crop year.

Average Loaded Transit Times (days)

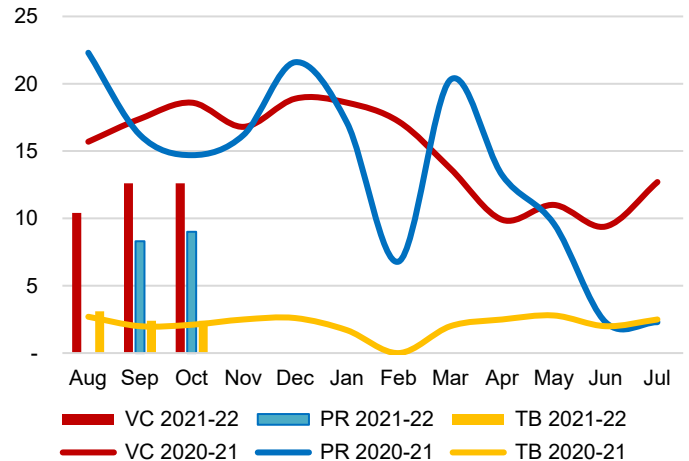


GMP Data Tables 5B-4, 5B-8, 5B-12

The loaded transit time for traffic destined to Western Canadian ports averaged 5.7 days in the first quarter of the 2021-22 crop year, down 16.6% from the 6.8-day average posted a year earlier. This was largely the product of decreases in the Vancouver and Prince Rupert averages, which fell by 20.6% and 32.3% respectively, while the Thunder Bay average rose 9.0%. A 6.1%

increase was observed on movements into Eastern Canada, with the average loaded transit time rising to 12.1 days from 11.4 days twelve months before. The average on movements into the United States decreased by 1.4%, to 10.1 days from 10.2 days.

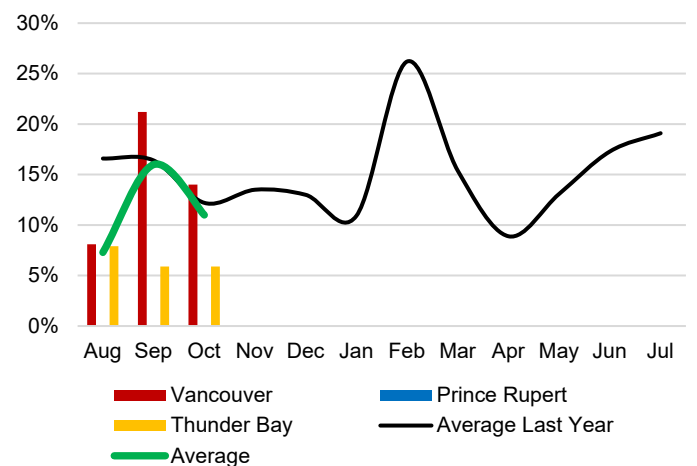
Average Days in Port per Vessel



GMP Data Table 5D-1

In October, the overall average time vessels were in port waiting and loading grain rose to 8.3 days from 7.9 days the month before. The crop-year average stands at 7.8 days, 31.1% lower than that registered in the previous crop year. While Vancouver and Thunder Bay held constant month-over-month, Prince Rupert saw a small increase from September levels. For the month of October, days in port stood at 12.6 for Vancouver, 9.0 for Prince Rupert and 2.4 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 fell to 11.0% in October, with a crop-year-to-date average of 11.8%. Terminal out-of-car time at Vancouver fell to 14.0% in October, while holding steady at 0.0% and 5.9% at Prince Rupert and Thunder Bay respectively.

Commercial Relations

<i>Table M-5</i> Rates: \$CDN per tonne	Q1 2021-22	Index (1999=100)	% Change YTD
Avg. Primary Elevation	16.51	137.7	-0.4%
Rail to Vancouver			
CN	62.03	169.0	21.1%
CP	67.83	184.2	10.3%
Rail to Pr. Rupert			
CN	62.03	149.3	21.1%
Rail to Thunder Bay			
CN	57.16	176.9	20.8%
CP	55.64	184.9	5.0%
Average Terminal Elevation	15.12	165.8	0.0%

Note: Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the first quarter of the 2021-22 crop year (as at 31 October 2021). Railway freight rates reflect average published single-car rates, and do not include multi-car incentives (\$8/tonne for 100+ car blocks).

Both CN and CP increased their single-car freight rates in the first quarter of the 2021-22 crop year. In the case of the former, this amounted to an initial across-the-board increase of 10.0% in August, followed by consecutive increases of 5.0% in both September and October. This meant that by the close of the first quarter CN had lifted its rates on movements to Vancouver, Prince Rupert, and Thunder Bay by approximately 21.0%. In comparison, CP left its year-end rates to Vancouver unchanged until September, when it applied a 4.0% increase, and followed it with another 6.0% increase in October, effectively escalating rates by 10.3% for the quarter. Conversely, the carrier reduced its rates to Thunder Bay by 4.0% at the beginning of August before then applying increases of 4.0% in September and 5.0% in October, which resulted in a net 5.0% increase for the quarter.

Commercial Developments

Container crisis deepens: The restricted supply of empty shipping containers has evolved into a crisis for many in Canada's soybean, pulse and special crops industries. Farmers have been unable to deliver their on-farm stocks because marketers cannot secure the empty containers needed to accommodate their shipments, thereby reducing the outbound flow to about a quarter of the recent norm. Many observers now believe that the shortage will continue well into 2022. The shortage initially appeared to have been triggered by the heightened demand for containers moving out of Asia as the world economy tried to exit the COVID-19 induced recession. But the supply has remained restricted because of the steamship lines' strategic decision to continue foregoing loaded back-haul movements in favour of returning containers empty to Asia and using them to supply the more lucrative head-haul market. The heightened demand for all nature of goods only aggravated matters, straining existing global supply

chains. While supply issues have been an issue at Vancouver, the situation is much worse at American ports, where dozens of ships were backlogged waiting to unload. Even the US Government has moved to address the bottlenecks at Los Angeles and Long Beach. With the supply of container capacity tightening and demand for service increasing, container rates have increased to virtually quadruple that seen earlier this year. This has fuelled calls by some industry sectors for governmental action under Section 49 of the Transportation Act, investigating the current supply chain disruptions

Churchill effectively closed for two years: The Arctic Gateway Group (AGG), a consortium comprised of 29 Indigenous and a dozen non-Indigenous communities that own and operate the rail line from The Pas MB to Churchill MB, along with the grain terminal located there, confirmed that grain likely will not be shipped through the northern Manitoba port before 2023. The suspension of export operations emanates from AGG's decision to undertake an extensive rehabilitation of the rail line, which was heavily damaged by washouts in 2017, and only returned to regular service in 2019. Much of the effort will centre on the laying of a honeycomb-like substructure, known as geocells, to help to help stabilize the long-problematic roadbed, which runs over an extensive expanse of muskeg. Construction began in August 2021 after the federal government announced that it was providing \$40 million to the project, with much of the work focused on a 150-mile stretch of track between Gillam and Churchill. Although freight and passenger services have continued despite the attendant delays, grain shipments were effectively suspended for the 2021 shipping season pending these repairs as well as upgrades to the 92-year-old grain terminal itself. Furthermore, 2021's reduced crop means that little grain is likely to be available for movement to Churchill in 2022, thereby making the 2023 shipping season the most probable for resumption of grain shipments through the port.

Infrastructure

Apart from the railways' car fleet, GMP measures relating to infrastructure are reported on a quarterly basis. The first quarter of the 2021-22 crop year saw no real change to any of the GHTS's physical infrastructure.

The country-elevator network remained unchanged at 411 facilities with 9.3 MMT of storage capacity. However, it was noted that several high-throughput, ladder-track elevators had increased their standing track capacities, presumably to remain competitive with the growing network of loop-track facilities.

Similarly, there were no changes recorded against the railway network in the first quarter of the 2021-22 crop year. Total mileage remained unaltered at 17,265.7 route-miles, with 84.5% of it being operated by CN and CP.

No changes were recorded against the terminal elevator network in the first quarter either, leaving the total number of facilities unchanged at 18 with almost 2.8 MMT in storage capacity.

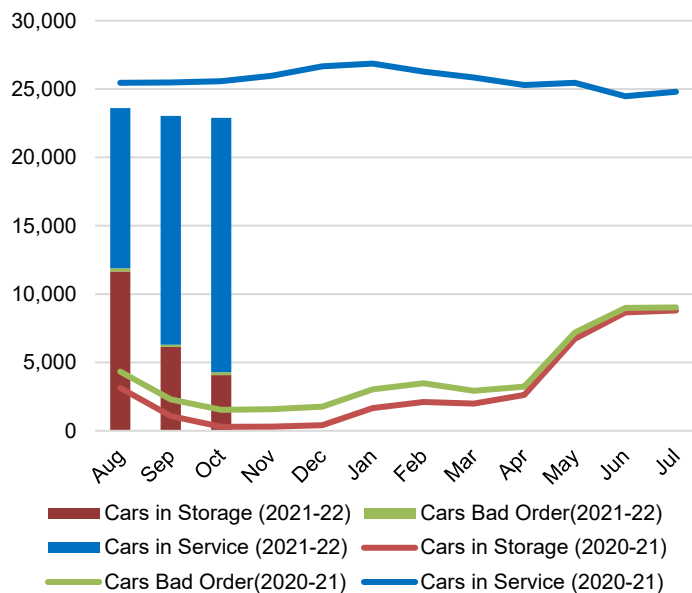
Table M-6	Q1 2021-22	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	411	40.9	0.0%
Storage Capacity (000's tonnes)	9,269.2	131.9	0.0%
Railway			
Route Miles - Major Carriers	14,596.1	98.4	0.0%
Route Miles - Shortline Carriers	2,669.6	57.5	0.0%
Route Miles - Total	17,265.7	88.7	0.0%
Average Weekly Total Hopper Car Fleet Size*	23,173	n/a	-9.1%
Terminal Elevator			
Terminal Facilities (Count)	18	128.6	0.0%
Storage Capacity (000's tonnes)	2,767.5	108.2	0.0%

* Hopper Car Fleet Size represents all cars in all statuses for the first quarter of the 2021-22 crop year.

During times of heavy demand for grain hopper cars, nearly all of 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 just 11,713 per week before reversing directions and climbing to 18,617 in October. The average cars in service for the first quarter of this crop year represents 68% of the total fleet. The balance of the fleet, comprising 32% of the rail cars, was in storage or repair status (bad order).



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 quarter of the 2021-22 crop year. The total number of available producer-car loading locations at the end of October stands at 272.

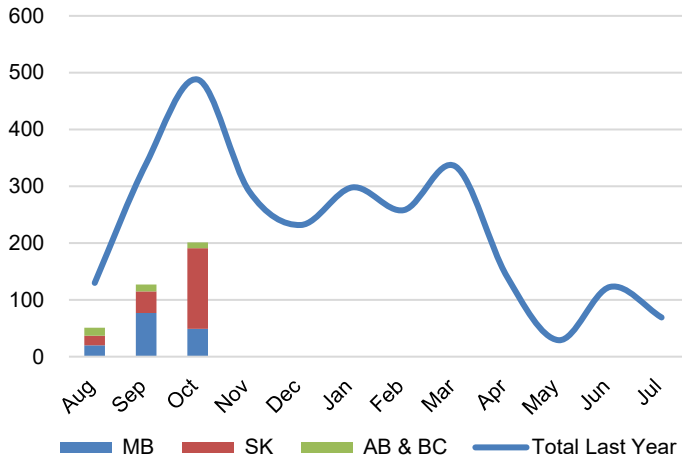
Table M-7 Producer Car Loading Sites	Q1 2021-22	Index (1999=100)	% Change YTD
Class 1 Carriers	142	22.2	0.0%
Shortline Carriers	130	200.0	0.0%
All Carriers	272	38.3	0.0%

Table M-8 Producer Cars Scheduled	Q1 2021-22	2021-22 YTD	Var. from Last YTD
Manitoba	146	146	-16.1%
Saskatchewan	197	197	-73.1%
Alberta & B.C.	36	36	-32.1%
Total	379	379	-60.4%

Producer cars scheduled for October 2021 were 58.8% less than in October 2020, marking an overall crop-year downturn of 60.4% from the previous year. The 2021-22 crop year reverses the trend of increasing producer-car numbers seen at the beginning of the previous two crop years. The drought-reduced production of 2021 will no doubt negatively impact cars scheduled throughout this entire crop year.



Producer Cars Scheduled by Province

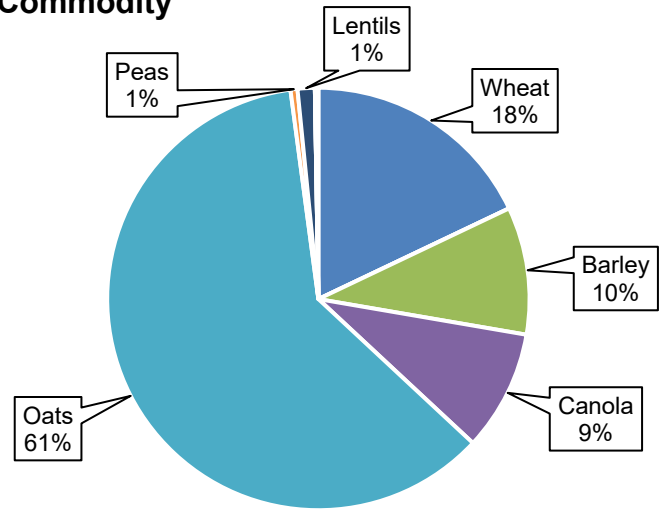


GMP Data Table 6B-2

Recent years has seen the proportion of producer-car shipments devoted to oats grow while a decrease has been registered in the number of cars carrying other cereal grains. Shipments through the first quarter of the 2021-22 crop year continue to reflect this

trend, with oats comprising 61% of the total, while wheat, durum and barley combined comprise only 28%. Canola contributed 9%, while special crops such as peas and lentils rounded out the final 2% of the total volume.

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