

GMP Dashboard

Table M-1	JUN 2023	JUL 2023	2022-23 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)				
Total Time in System	37.9	36.1	40.4	-34.4%
Average Days In Store – Country	22.4	20.2	24.2	-36.8%
Loaded Transit Time	5.0	4.9	5.7	-16.6%
Average Days In Store – Terminal	10.5	11.0	10.5	-36.4%
Total Traffic ('000 tonnes)				
Primary Elevator Shipments	3,108.3	3,224.9	49,363.4	43.3%
Railway Shipments (all Western Canada traffic)	3,530.1	3,977.9	55,466.8	52.4%
Western Port Terminal Shipments	2,398.2	2,737.9	39,860.0	64.3%
Railway Performance				
Avg. Loads on Wheels (Cars)	6,191	6,206	8,784	24.7%
Total Western Port Car Cycle (days)	15.0	13.2	13.9	-21.7%
Port Performance				
Western Port Unloads (Number of Cars)	23,280	28,332	410,464	63.9%
Vessel Time in Port (days)	7.0	8.0	9.8	7.5%

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

Western Canadian railway grain shipments rose 12.7% in July 2023, to almost 4.0 MMT from 3.5 MMT in June. This increase capped a much stronger showing for the 2022-23 crop year, with total tonnage climbing to nearly 55.5 MMT, 52.4% more than in the previous crop year. Port shipments for July totaled 2.7 MMT, a 14.2% increase from June volumes, and a sizable 48.7% increase from those in July 2022. The growth in shipments registered 64.3% at the end of the crop year. A month-over-month increase was seen in the average amount of time vessels spent in port, which grew to 8.0 days in July from 7.0 in June. The overall crop-year-average vessel time in port measures 9.8 days.

Highlights for July 2023 and Fourth Quarter 2022-23 CY

Traffic and Movement (page 2)

- Primary-elevator shipments were 49.4 MMT in the 2022-23 crop year, 43.3% more than the previous year.
- Total Western Canadian rail shipments to all destinations (from all primary/process elevators and producer-car sites) in the 2022-23 crop year totaled 55.5 MMT, up 52.4% from the previous crop year.
- Bulk shipments from Western ports totaled 39.9 MMT at end of the crop year, up 64.3% from last crop year.

System Efficiency and Performance (page 4)

- Average weekly primary-elevator stocks decreased 4.7% from the same period last year, while average days-in-store fell 36.8%.
- Average weekly port-terminal stocks increased 4.5% from the same period last year, while average days-in-store fell 36.4%.
- The preliminary average car cycle for hopper-car movements to Western Canadian ports decreased by 12.0% in July, to 13.2 days from 15.0 days in June. Higher velocities helped reduce the 2022-23 crop-year average to 13.9 days, 21.7% below the 17.6 days posted a year earlier. Movements into Eastern Canada also decreased sharply, with the annualized average falling by 18.9% to 24.2 days, while movements into the US posted a lesser 6.2% decline, to an average of 26.0 days.
- The average vessel time in port during the 2022-23 crop year was 9.8 days, a 7.5% increase from that observed throughout the previous crop year.
- Port-terminal out-of-car time grew to 23.7% at Vancouver in July from 17.7% in June and to 13.7% at Thunder Bay from 4.0% the previous month. At Prince Rupert, the out-of-car time remained at 0.0% in July as the shipping program receded.

Commercial Relations (page 6)

- Average primary-elevation charges increased by 0.3% in the 2022-23 crop year.
- Both CN and CPKC raised their single-car freight rates significantly in the first quarter, only to reduce them in the second, third and fourth quarters. Outside of a net 0.4% increase in its Vancouver rates, CN's rates into Prince Rupert and Thunder Bay fell by 1.6% and 0.6% respectively. CPKC's pricing actions saw a net reduction of 3.3% in its Vancouver rates, and a 0.2% increase in its Thunder Bay rates.
- Average terminal-elevation charges increased by 1.5% in the 2022-23 crop year.

Infrastructure (page 6)

- At the close of the fourth quarter the country-elevator network consisted of 405 facilities with almost 9.6 MMT of storage. The opening of two new G3 facilities late in the period increased the number of loop-track-equipped elevators to 46.
- Railway infrastructure was unchanged at 17,265.7 route-miles.
- The terminal elevator network stood at 17 facilities with 2.8 MMT of storage.
- The overall hopper-car fleet rose modestly to a crop-year average of 23,156 cars, 5.6% more than was the case in the previous crop year.

Production and Supply

Statistics Canada's November-survey estimate for 2022 field-crop production in Western Canada stands at 73.8 MMT, a 50.6% increase from 2021's 49.0 MMT harvest. This dramatic increase reflects a solid rebound from the prairie-wide drought that severely reduced production the previous growing season. This estimate represents a 1.4 MMT reduction from the previous model-based estimate recorded at the end of August.

When coupled with July's 3.85 MMT of carry-forward stocks, some 48.9% less than in 2021, the overall grain supply is estimated at 77.7 MMT. This stands 37.3% above the 2021-22 crop year's 56.6-MMT level, marking the return of an abundant grain supply to meet domestic and export demands.

Table M-2	2022	2021	Var. from Last Yr.
Production & Carry Forward (000's tonnes)			
Western Canada Total Production	73,807.4	49,016.9	50.6%
Western Canada On-Farm & Primary Elevator Carry Forward Stock	3,851.8	7,542.1	-48.9%
Total Grain Supply	77,659.2	56,559.0	37.3%

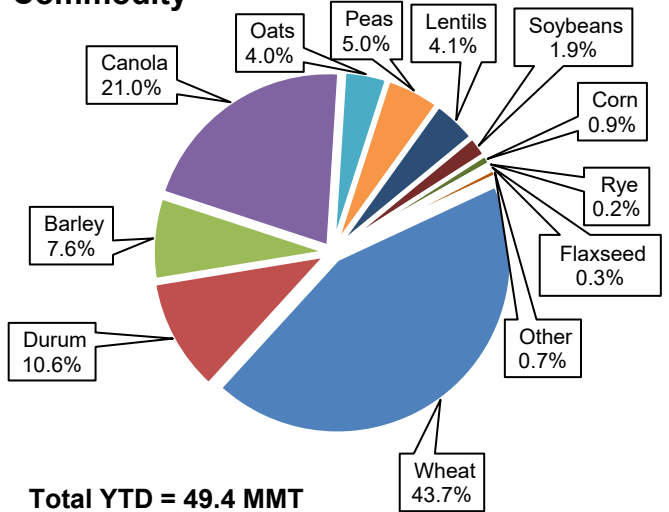
Traffic and Movement

As the crop year wrapped up, July deliveries fell to average just over 0.65 MMT per week. Weekly primary-elevator stocks also fell from the previous month to average 2.4 MMT, with good space available in elevator facilities across the prairies.

Table M-3	JUL 2023	2022-23 YTD	Var. from Last YTD
Primary Elevator Shipments (000's tonnes)			
Manitoba	596.7	8,025.4	19.7%
Saskatchewan	1,767.0	25,388.5	58.1%
Alberta	849.3	15,654.2	37.1%
British Columbia	11.8	295.3	14.7%
Total	3,224.9	49,363.4	43.3%
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	3,038.7	43,719.6	64.8%
Shipments to Eastern Canada	121.8	2,411.1	6.2%
Shipments to US & Mexico	746.0	8,296.3	25.2%
Shipments Western Domestic	71.3	1,039.9	8.1%
Total	3,977.9	55,466.8	52.4%
Western Port Unloads (Number of Cars)			
Vancouver	17,990	290,328	74.4%
Prince Rupert	2,791	47,632	86.6%
Churchill	0	0	n/a
Thunder Bay	7,551	72,504	24.3%
Total	28,332	410,464	63.9%

Table M-3	JUL 2023	2022-23 YTD	Var. from Last YTD
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,829.4	28,182.4	76.5%
Prince Rupert	295.4	4,565.9	92.4%
Churchill	0.0	0.0	n/a
Thunder Bay	613.1	7,111.7	20.0%
Total	2,737.9	39,860.0	64.3%

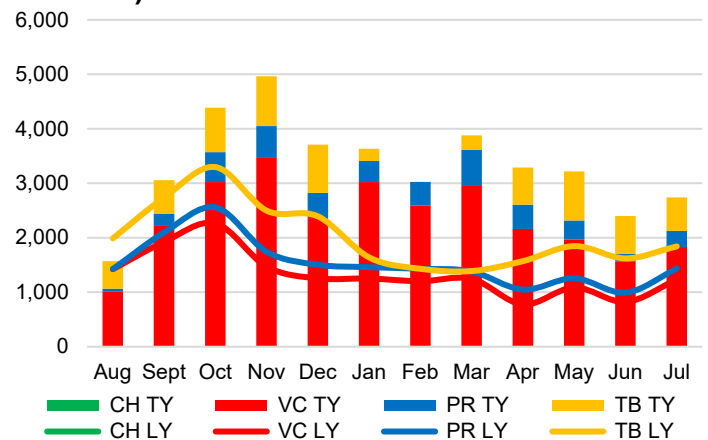
Primary Elevator Shipments by Commodity



GMP Data Table 2A-1

Crop-year to date grain shipments from primary elevators grew, registering 43.3% more than in the previous year. Wheat, including durum, and canola continue to constitute the largest proportion of the movement at 75.3%. Movement of peas and lentils contributed 9.1% of the balance.

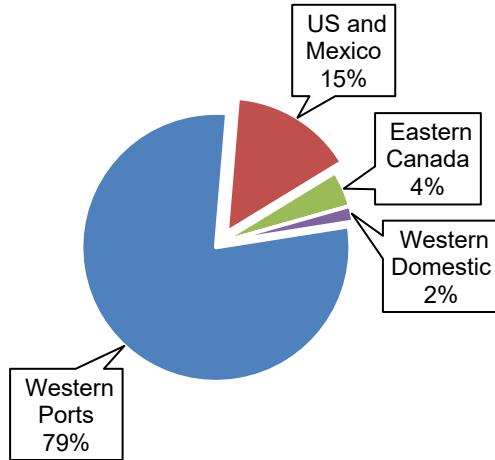
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Bulk shipments from western ports grew substantially in the 2022-23 crop year, registering a 64.3% increase on a year-over-year basis. West Coast shipments were up substantially with a 76.5% increase at Vancouver and a 92.4% increase at Prince Rupert, while Thunder Bay was up a more modest 20.0%.

Western Canadian Grain Destinations

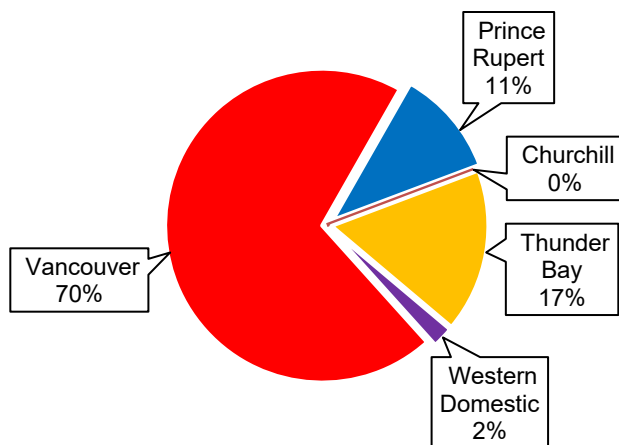


Total YTD = 55.5 MMT

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

Railway grain shipments from Western Canada totaled just under 55.5 MMT in the 2022-23 crop year, 52.4% more than the 36.4 MMT handled a year earlier. The majority, about 43.7 MMT, or 79%, was directed to Western Canadian ports in support of offshore sales; 64.8% more than what had been handled a year earlier. This surge was broadened by increases of 25.2% in shipments to the US and Mexico, 6.2% for movements into Eastern Canada, and 8.1% to Western Domestic destinations.

Western Canadian Destined Hopper Car Traffic



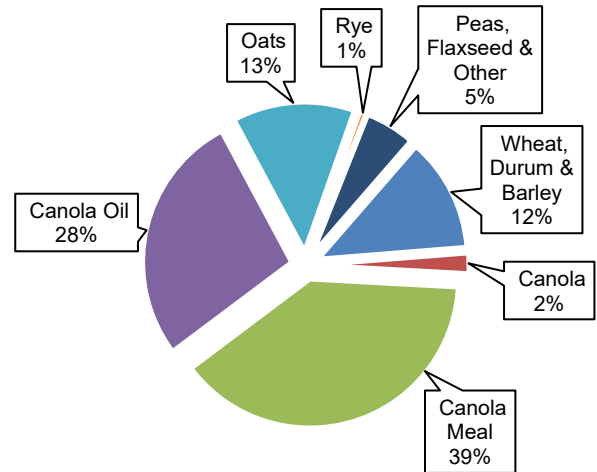
Total YTD - 43.9 MMT

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 2022-23 crop year this amounted to about 43.9 MMT, up 65.3% from the 26.6 MMT handled a year earlier. Seventy 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 78.1% increase in hopper-car shipments to Vancouver was largely responsible for shaping the broader traffic gain. This was supported by substantive increases in shipments to Prince Rupert and Thunder Bay, which rose by 84.8% and 26.9% respectively. Western Domestic destinations saw a much lesser gain of 10.7%.

US Destined Grain by Commodity

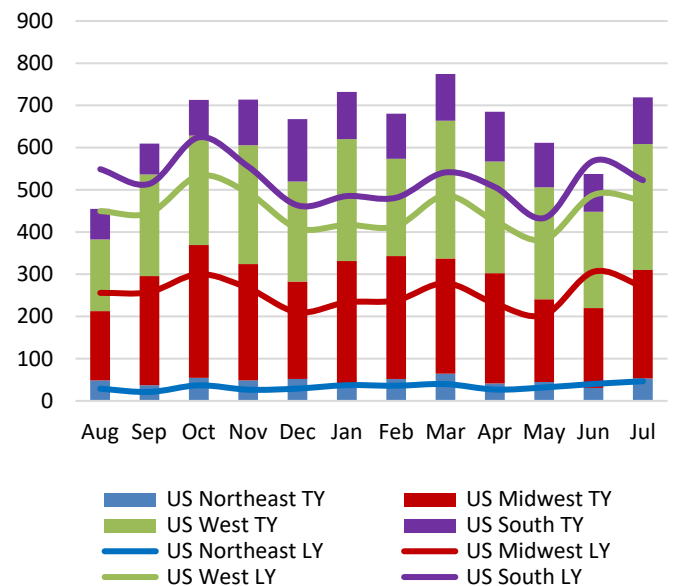


Total YTD - 7.9 MMT

GMP Data Table 2B-18

Total railway shipments into the US reached just under 7.9 MMT in the 2022-23 crop year, up 26.4% from the 6.2 MMT handled a year earlier. Just over 77% of these shipments were 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

As the crop year drew to a close, primary-elevator stocks fell to 2.4 MMT in July from 2.6 MMT in June. The overall average for the crop year is 3.4 MMT. Country space was good throughout the period. Country stocks utilized 43% of the working capacity of the network in July. Stocks ranged from 37% and 42% in Alberta and Saskatchewan respectively to 52% in Manitoba and 88% in British Columbia.

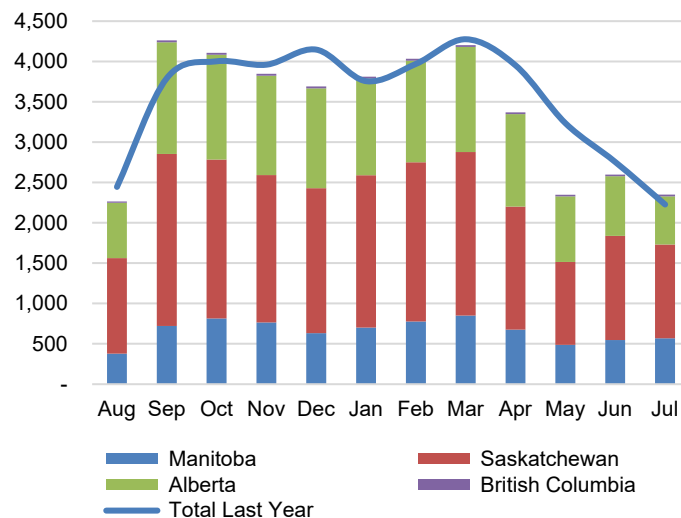
The average days-in-store in the primary-elevator system for the crop year decreased from last year, falling 36.8% to 24.2 days.

Table M-4	JUL 2023	2022-23 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	2,350.2	3,382.3	-4.7%
Average Days in Store	20.2	24.2	-36.8%
Railway Operations (days)			
Cycle Time to Western Ports	13.2	13.9	-21.7%
Cycle Time to Eastern Canada	25.9	24.2	-18.9%
Cycle Time to US	27.2	26.0	-6.2%
Loaded Transit to Western Ports	4.9	5.7	-16.6%
Loaded Transit to Eastern Canada	13.1	10.9	-19.8%
Loaded Transit to US	12.4	10.3	-9.6%
Rail Fleet in Grain Service	14,860	17,804	25.7%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	1,005.2	1,168.8	4.5%
Average Days in Store	11.0	10.5	-36.4%
Port Unloads (hopper cars)	28,332	410,464	63.9%
Terminal Out-of-Car Time	18.8%	13.3%	-13.1%
Western Canada Port Operations			
Average Vessel Time in Port (days)	8.0	9.8	7.5%

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



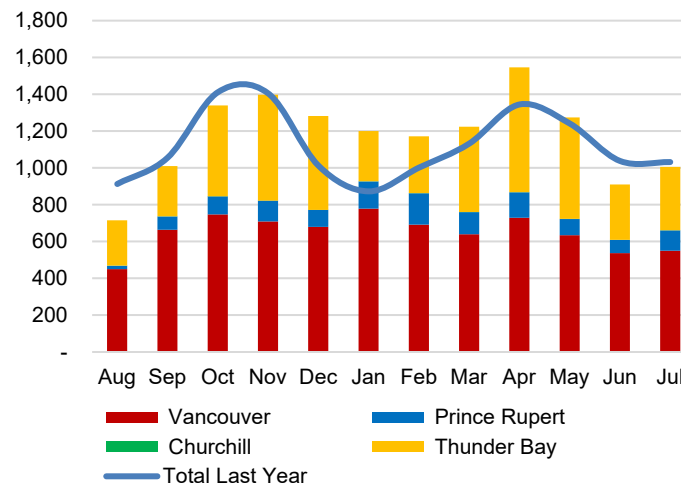
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary elevator stocks ended the last crop year averaging 2.2 MMT in-store. They peaked at an average of 4.3 MMT in September and again at 4.2 MMT in March before retreating to 2.4 MMT in July. Wheat, including durum, and canola, comprise 63% of the total stock. At 24% of the stock, barley, oats and peas made up much of the balance.

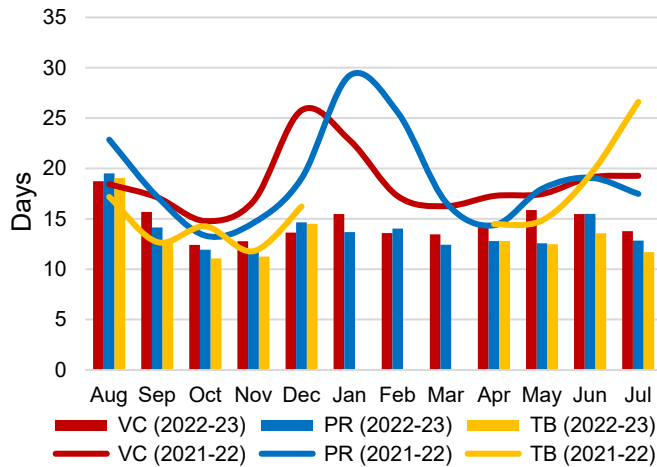
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

Overall terminal-elevator stocks averaged 1.2 MMT in the 2022-23 crop year, 4.5% more than the previous crop-year average. July stocks climbed to over 1.0 MMT with marginal increases at the three operating western ports. Wheat, including durum, and canola, comprise over 83% of the total stock. In July, western ports utilized just 52% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

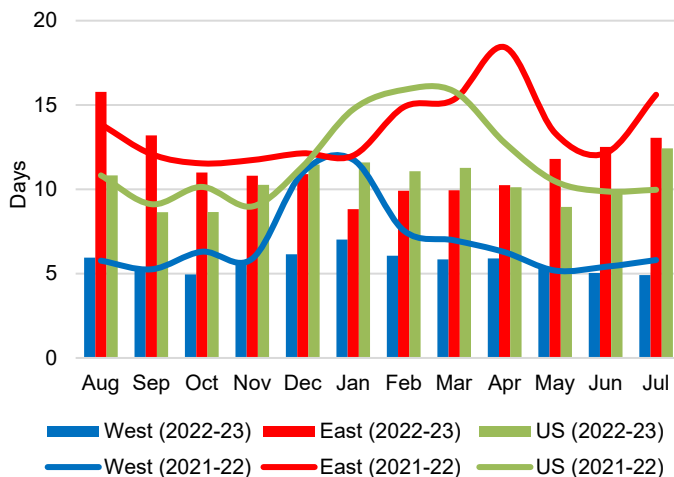


GMP Data Table 5B-1

The preliminary railway car cycle to Western Canadian ports averaged 13.9 days in the 2022-23 crop year, down 21.7% from the 17.8-day average posted in the previous crop year. This result reflected decreases in all three corridors: with Vancouver down by 21.8%; Prince Rupert, 28.2%; and Thunder Bay, 19.8%.

The average car cycle on movements into Eastern Canada also declined by a comparable 18.9%, to 24.2 days from 29.9 days a year earlier. Similarly, the car cycle on movements into the United States also fell, albeit by a lesser 6.2%, to an average of 26.0 days from 27.7 days the previous crop year.

Average Loaded Transit Times (days)

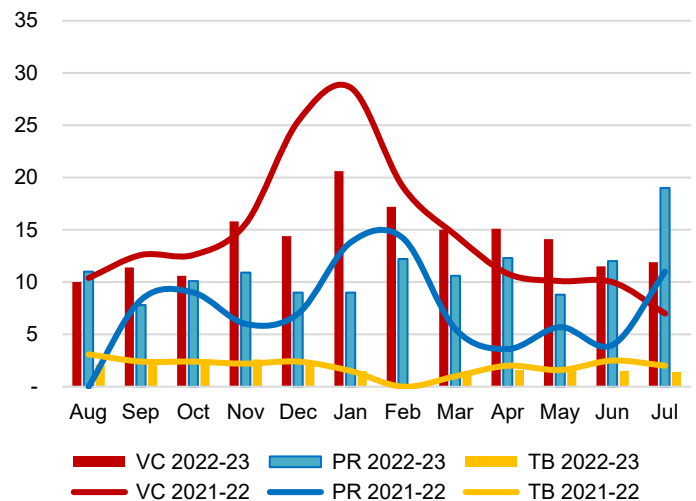


GMP Data Tables 5B-4, 5B-8, 5B-12

The loaded transit time for traffic destined to Western Canadian ports averaged 5.7 days in the 2022-23 crop year, down 16.6% from the 6.8-day average posted a year earlier. This was the product of decreases in all three primary corridors, with the Vancouver average falling by 16.2%, Prince Rupert's by 24.1%, and Thunder Bay's by 18.0%. A 19.8% decrease was observed on movements into Eastern Canada, with the average loaded

transit time falling to 10.9 days from 13.6 days twelve months earlier. The average on movements into the United States decreased by 9.6%, to 10.3 days from 11.4 days.

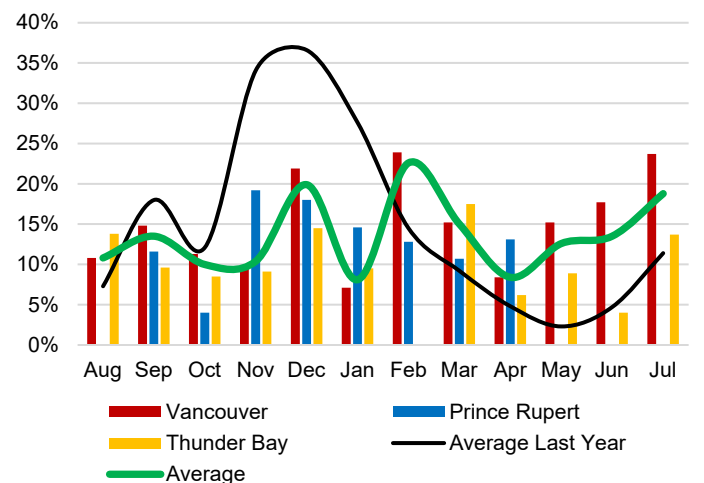
Average Days in Port per Vessel



GMP Data Table 5D-1

In July, the overall average time vessels were in port waiting and loading grain grew to 8.0 days from 7.0 days the month before. The crop-year average stands at 9.8 days, 7.5% higher than that registered in the previous crop year. While Vancouver experienced a slight month-over-month increase, Prince Rupert's climb from June levels was more pronounced. For the month of July, days in port stood at 11.9 for Vancouver, 19.0 for Prince Rupert and 1.4 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 advanced to 18.8% in July, with a crop-year average of 13.3%. Terminal out-of-car time at Vancouver grew to 23.7% in July and to 13.7% at Thunder Bay. At Prince Rupert it remained at 0.0%.

Commercial Relations

<i>Table M-5</i> Rates: \$CDN per tonne	Q4 2022-23	Index (1999=100)	% Change YTD
Avg. Primary Elevation	16.56	138.0	0.3%
Rail to Vancouver			
CN	56.25	153.2	0.4%
CPKC	62.86	170.9	-3.3%
Rail to Pr. Rupert			
CN	55.14	132.7	-1.6%
Rail to Thunder Bay			
CN	49.39	152.8	-0.6%
CPKC	47.63	158.3	0.2%
Average Terminal Elevation	15.64	171.5	1.5%

Note: Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the fourth quarter of the 2022-23 crop year (as at 31 July 2023). 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 CPKC increased their single-car freight rates substantially in the first quarter of the 2022-23 crop year. At the outset of August 2022, CN escalated its rates on westbound movements into Vancouver and Prince Rupert by an average of 12.1%, with its Thunder Bay rates remaining unchanged. Increases ranging from 5.0% to 16.5% followed in September, as did increases of 5.0% to 8.4% in October. These rates remained unchanged until January 2023, when CN initiated reductions of between 5.0% to 9.0%. Across-the-board reductions of 10.0% in March, and 5.0% in June, followed. The compound effect of these actions produced a net increase of 0.4% on movements into Vancouver, and reductions of 1.6% and 0.6% for Prince Rupert and Thunder Bay respectively. In comparison, CPKC left its year-end rates unchanged until September, when it applied an average increase of 5.5% on movements into Vancouver, and 14.2% on movements into Thunder Bay. This was followed in October with additional increases averaging 7.2% and 4.1% respectively. These rates also remained unchanged until January 2023 when CPKC put forward reductions ranging anywhere from 3.0% to 18.0%. A more selective set of cuts reaching up to 10.0% were also advanced in March. An across-the-board reduction of roughly 4.0% followed in June. The net effect was a 3.3% cut in CPKC's Vancouver rates, and a 0.2% increase in its Thunder Bay rates.

Commercial Developments

Viterra to merge with Bunge: On 13 June 2023 St. Louis-based Bunge Limited announced that it had entered into a definitive agreement to merge with Rotterdam-based Viterra in a stock and cash transaction worth \$US8.2 billion. The transaction, which is largely viewed as complementary, would effectively marry the world's largest oilseed processor with one of its largest grain handlers. With both entities having operations that span the globe,

the combined company – which would continue under the Bunge name – would constitute one of the largest agribusinesses in the world. With an estimated market capitalization of roughly \$US25 billion, the merged entity would be better positioned to compete with acknowledged industry leaders, Cargill Inc. and Archer Daniels Midland. Viterra has a large presence in Canada, with a physical footprint that extends from British Columbia to Quebec and encompasses 66 primary and process elevators along with six port terminals. More recently, the company announced plans to build the world's largest integrated canola-crushing facility in Regina. These would dovetail with Bunge's smaller, yet no less significant domestic operations, which include several oil-processing facilities on the Prairies as well as a 25% minority interest in G3 Canada. The merger is expected to close in mid-2024, subject to regulatory and shareholder approvals.

Extended interswitching reinstated: Building on one of the recommendations put forward by the National Supply Chain Task Force (Task Force) in its Final Report issued in the fall of 2022, the federal government's 2023 budget included a provision for the resurrection of a 160-km extended interswitching zone for Prairie rail movements on an 18-month "pilot" basis. Following passage of the *Budget Implementation Act (2023)* in late June, this provision is now set to return on 20 September 2023. However, the concept of extended interswitching remains contentious, and has again pitted shippers against carriers as to both its need and practicality. Originally brought forward in 2014 as an interim measure to aid in addressing railway service failures occasioned by the 2013-14 crop year's record harvest, it was allowed to lapse in 2016. The provision's reintroduction was advocated by the Task Force as a means of increasing supply-chain resiliency by heightening carrier competition and offering shippers transportation alternatives.

ILWU strike disrupts port operations: On 1 July 2023 about 7,500 members of the International Longshore and Warehouse Union Canada (ILWU) went on strike against the British Columbia Maritime Employers Association (BCMEA) over disagreements relating to wages, the contracting out of work, and automation. This action effectively prevented the movement of traffic through some 30 west coast ports, including the commercially critical gateways of Vancouver and Prince Rupert. Although the Canada Labour Code insulated the movement of bulk grain through these ports, shipments of other goods were effectively immobilized (including containerized grain shipments). Given the threat to Canadian supply chains, many stakeholders called on the Government of Canada to take immediate action to end the strike through the enactment of back-to-work legislation. The government communicated that it would consider all options, but that it believed in a collective bargaining process and would help to facilitate an end to the action. After nearly two weeks of on-and-off negotiations, it appeared that a tentative agreement had finally been reached, but it was subsequently voted down by the ILWU membership. A second tentative agreement was secured a few days later, but it too suffered the same fate. The parties came to a third agreement on 30 July 2023, which was ratified by the ILWU membership later that same week. Clearing the traffic backlogged by the strike was expected to take a number of weeks at minimum.

Infrastructure

Apart from the railways' car fleet, GMP measures relating to infrastructure are reported on a quarterly basis. The 2022-23 crop year has thus far produced several modest, although noteworthy, changes in the GHTS's physical infrastructure.

The licensing and delicensing of several country elevators reduced the total number of network facilities to 405 facilities from 413, with storage capacity increasing by 157,100 tonnes to nearly 9.6 MMT. In the face of this broader decline, the number of loop-track facilities increased to 46 from the previous crop-year total of 37, following several new builds and retrofits.

There were no changes recorded against the railway network in the 2022-23 crop year. Total mileage remained unaltered at 17,265.7 route-miles, with 84.5% of this being operated by CN and CPKC.

Neither were there any changes to the terminal elevator network in the 2022-23 crop year. The network comprises 17 facilities with 2.8 MMT of storage capacity.

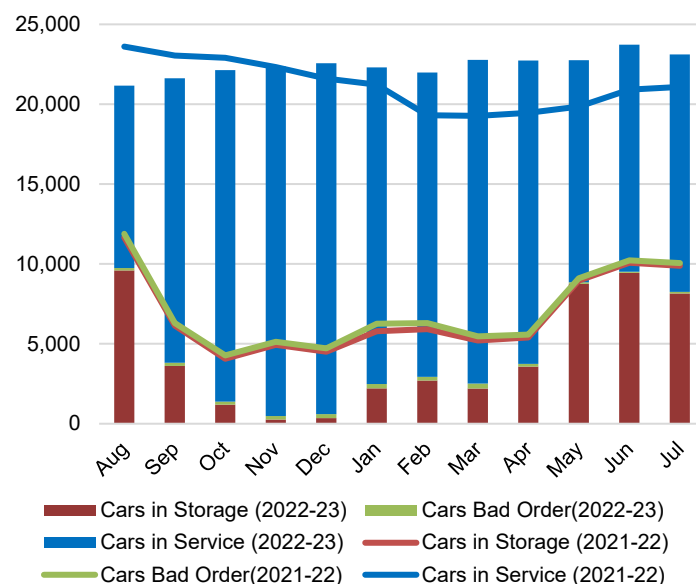
Table M-6	Q4 2022-23	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	405	40.3	-1.9%
Storage Capacity (000's tonnes)	9,563.5	136.1	1.7%
Railway			
Route Miles - Major Carriers	14,596.1	98.4	0.0%
Route Miles - Shortline Carriers	2,669.6	57.5	0.0%
Route Miles - Total	17,265.7	88.7	0.0%
Average Weekly Total Hopper Car Fleet Size*	23,156	n/a	5.6%
Terminal Elevator			
Terminal Facilities (Count)	17	121.4	0.0%
Storage Capacity (000's tonnes)	2,752.5	107.6	0.0%

* Hopper Car Fleet Size represents all cars in all statuses for the entire 2022-23 crop year.

During times of heavy demand, nearly the entire hopper-car fleet is placed 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 2021-22 crop year as the weekly number of cars in service declined to a low of 10,693 in June 2022, with roughly half the fleet then having been placed in storage. A modest increase in the serviceable-car count was seen by August 2022, rising to 11,413 followed by a jump to 21,968 by December. By July, the cars in service retreated to average 14,860. In July, 64% of the overall fleet was in service

to address the shipping demands for western grain, with 36% of the cars being reported in either storage or bad order status.

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 throughout the 2022-23 crop year. The total number of available producer-car loading locations at the end of July stands at 272.

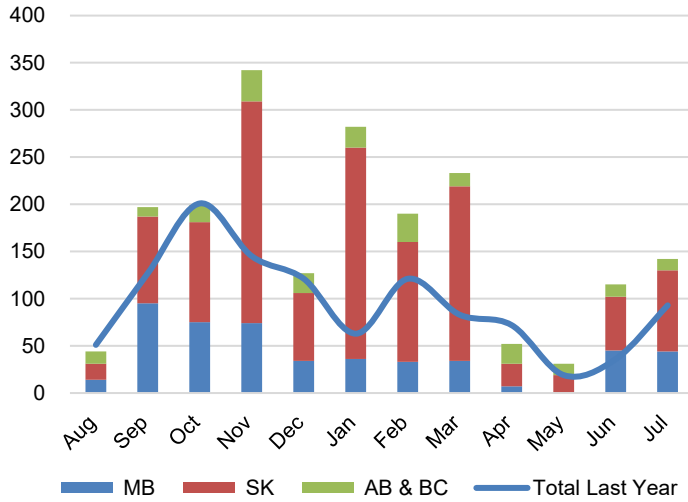
Table M-7 Producer Car Loading Sites	Q4 2022-23	Index (1999=100)	% Change YTD
Class 1 Carriers	142	22.2	0.0%
Shortline Carriers	130	200.0	0.0%
All Carriers	272	38.3	0.0%

Table M-8 Producer Cars Scheduled	Q4 2022-23	2022-23 YTD	Var. from Last YTD
Manitoba	89	491	57.4%
Saskatchewan	162	1,244	92.9%
Alberta & B.C.	37	219	40.4%
Total	288	1,954	75.6%

Producer cars scheduled for July 2023 were 91.9% more than in July 2022. Consistent with the month-over-month increase, the overall crop year saw a gain of 75.6% from the previous year. The previous crop year saw oats shipments comprising 54% of total producer cars scheduled, while the 2022-23 crop year registered oats losing ground at only 43% of the aggregate producer-car number. The United States was the largest destination for producer cars, accounting for over 65% of the total, including all of the oats shipments and most of the durum.



Producer Cars Scheduled by Province

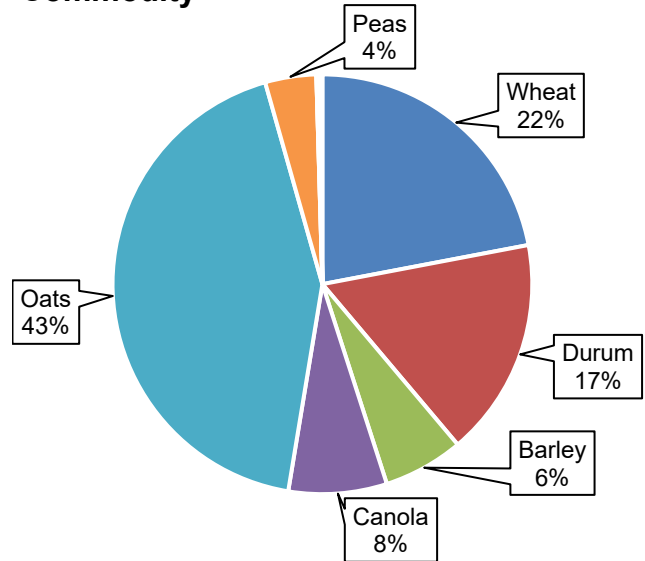


GMP Data Table 6B-2

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 throughout the 2022-23 crop year saw this trend moderating, with oats

comprising only 43% of the total, while wheat, durum and barley combined comprise 45%. Canola contributed 8%, while peas rounded out the final 4% of the total volume.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2



Quorum Corporation
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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