

Grain Monitoring Program Report for: December 2022

Release Date: January 18, 2023

GMP Dashboard

| Table M-1 | NOV 2022 | DEC 2022 | 2022-23 YTD | Var. from Last YTD | | |
|---|-------------|----------|----------------|-----------------------|--|--|
| Western Canadian GHTS Performance (Days) | | | | | | |
| Total Time in System | 37.1 | 41.8 | 39.1 | -28.1% | | |
| Average Days In Store – Country | 21.5 | 25.9 | 23.6 | -29.7% | | |
| Loaded Transit Time | 5.7 | 5.8 | 5.4 | -17.8% | | |
| Average Days In Store – Terminal | 9.9 | 10.1 | 10.1 | -28.9% | | |
| Total Traffic ('000 tonnes) | | | | | | |
| Primary Elevator Shipments | 6,073.5 | 3,865.2 | 22,714.5 | 34.4% | | |
| Railway Shipments (all Western Canada traffic) | 5,761.1 | 5,082.1 | 25,083.7 | 37.8% | | |
| Western Port Terminal Shipments | 4,946.8 | 3,574.9 | 17,533.9 | 35.7% | | |
| Railway Performance | | | | | | |
| Avg. Loads on Wheels (Cars) | 11,295 | 11,512 | 9,449 | 15.9% | | |
| Total Western Port Car Cycle (days) | 12.3 | 12.5 | 13.3 | -20.4% | | |
| Port Performance | | | | | | |
| Western Port Unloads (Number of Cars) | 54,624 | 30,582 | 185,386 | 35.8% | | |
| Vessel Time in Port (days) | 10.5 | 8.5 | 8.4 | -2.2% | | |

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 decreased by 11.8% in December 2022, to 5.1 MMT from 5.8 MMT in November. Even so, the decline builds on much stronger current-year shipments, which helped lift the year-to-date tonnage to 25.1 MMT, 37.8% more than in the same five-month period a year earlier. Port shipments for December totaled 3.6 MMT, an 27.7% decline from November. They were 49.3% larger than those in December 2021 when recovery was ongoing from the washouts of road and rail infrastructure that cut off most access to Vancouver. Accompanying the month-over-month decline in shipments was a decrease in the average amount of time vessels spent in port, which fell to 8.5 days in December from 10.5 in November.

Highlights for December 2022

Traffic and Movement (page 2)

- Primary-elevator shipments were 22.7 MMT in the first five months of the 2022-23 crop year, 34.4% more 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 2022-23 crop year totaled 25.1 MMT, up 37.8% from the same period a year earlier.
- Bulk grain shipments from Western Canadian ports totaled 17.5 MMT in the first five months of the crop year, up 35.7% from the same period last year.

System Efficiency and Performance (page 4)

- The year-to-date average weekly primary-elevator stocks decreased by 2.7% while the average days-in-store fell by 29.7%.
- Average weekly port-terminal stocks decreased 1.8% from the same period last year, while average days-in-store fell by 28.9% on a year-over-year basis.
- The preliminary average car cycle for hopper-car movements to Western Canadian ports increased by 1.6%, to 12.5 days in December from 12.3 days in November. Higher velocities helped reduce the YTD average to 13.3 days, 20.4% below the 16.7 days posted a year earlier. Movements into the US also decreased, with the YTD average falling by 1.7% to 24.4 days, while movements into Eastern Canada witnessed a 0.5% increase, to an average of 25.6 days.
- The year-to-date average for vessel time in port is 8.4 days,
 2.2% less than that observed in the previous crop year.
- Port-terminal out-of-car time increased to 21.9% at Vancouver in December, from 9.6% in November. Prince Rupert saw a decline to 18.0% in out-of-car time in December, from 19.2% in November, while Thunder Bay realized an increase to 14.5% from 9.1% the previous month

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 3.8 MMT of carry-forward stocks, some 49.3% less than in 2021, the overall grain supply is estimated at 77.6 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.

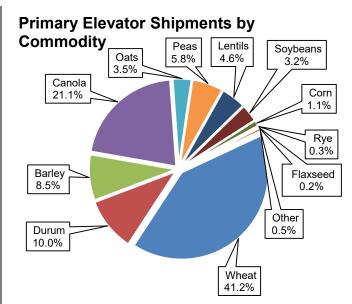
| Table M-2 | 2022 | 2021 | Var. from Last Yr. | | |
|---|----------|----------|-----------------------|--|--|
| Production & Carry Forward (000's tonnes) | | | | | |
| Western Canada Total Production | 73,807.4 | 49,016.9 | 50.6% | | |
| Western Canada On Farm & Primary Elevator Carry Forward Stock | 3,820.8 | 7,542.1 | -49.3% | | |
| Total Grain Supply | 77,628.2 | 56,559.0 | 37.3% | | |

Traffic and Movement

December producer deliveries declined as the holiday season and close of Seaway navigation approached, averaging just under 0.9 MMT per week. Average weekly primary-elevator stock levels fell to 3.7 MMT from 3.8 MMT in November, with good space in the elevator system throughout the month.

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|---|----------------|----------------|-----------------------|--|--|--|
| Table M-3 | DEC 2022 | 2022-23 YTD | Var. from Last YTD | | | |
| Primary Elevator Shipments (000's tonnes) | | | | | | |
| Manitoba | 688.3 | 4,083.6 | 10.0% | | | |
| Saskatchewan | 1,913.6 | 11,627.5 | 48.3% | | | |
| Alberta | 1,241.2 | 6,848.4 | 31.5% | | | |
| British Columbia | 22.1 | 155.0 | 9.8% | | | |
| Total | 3,865.2 | 22,714.5 | 34.4% | | | |
| Western Canada Railway Traffic (000's tonnes) | | | | | | |
| Shipments to Western Ports | 4,087.6 | 20,392.7 | 45.2% | | | |
| Shipments to Eastern Canada | 180.8 | 967.8 | 4.8% | | | |
| Shipments to US & Mexico | 689.5 | 3,308.1 | 16.6% | | | |
| Shipments Western Domestic | 124.3 | 415.1 | 4.5% | | | |
| Total | 5,082.1 | 25,083.7 | 37.8% | | | |
| Western Port Unloads (Number of Cars) | | | | | | |
| Vancouver | 21,433 | 128,661 | 45.1% | | | |
| Prince Rupert | 4,113 | 19,825 | 71.3% | | | |
| Churchill | 0.0 | 0.0 | n/a | | | |
| Thunder Bay | 5,036 | 36,900 | 1.8% | | | |
| Total | 30,582 | 185,386 | 35.8% | | | |
| Terminal Elevator Shipment | s (000's tonne | es) | | | | |
| Vancouver | 2,243.9 | 11,947.0 | 43.3% | | | |
| Prince Rupert | 463.2 | 1,871.3 | 89.2% | | | |
| Churchill | 0.0 | 0.0 | n/a | | | |
| Thunder Bay | 867.8 | 3,715.6 | 3.5% | | | |
| Total | 3,574.9 | 17,533.9 | 35.7% | | | |
| | | | | | | |
| | 4 | | | | | |



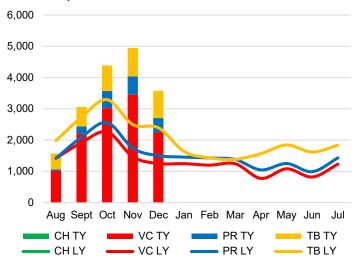


Total YTD = 22.7 MMT

GMP Data Table 2A-1

Grain shipments from primary elevators grew in the first five months of the crop year, registering 34.4% greater than in same period 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 contributed 10.4% of the total.

Terminal Elevator Shipments (000's tonnes)

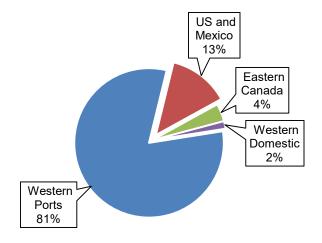


GMP Data Table 2C-1

Bulk grain shipments from western ports have made a strong rebound in the first five months of the 2022-23 crop year. December shipments were 49.3% higher than in December 2021 with a year-to-date increase of 35.7%. December 2021 shipments were still recovering from the torrential rains that severely damaged transportation infrastructure in the BC lower mainland. Vancouver was up 43.3%, while Prince Rupert surged to an 89.2% gain. Thunder Bay shipments recorded a more modest year-over-year increase of 3.5%.



Western Canadian Grain Destinations



Total YTD = 25.1 MMT

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

Railway grain shipments from Western Canada totaled almost 25.1 MMT in the first five months of the 2022-23 crop year, a 37.8% increase from the 18.2 MMT handled a year earlier. The majority, about 20.4 MMT, was directed to Western Canadian ports in support of export sales. This represented a 45.2% increase over what had been shipped in the same period the previous year, with the increase supplemented by a 4.5% gain in Western Domestic traffic. A 4.8% increase was noted on movements into Eastern Canada with shipments to the US and Mexico rising by 16.6%.

Western Canadian Destined
Hopper Car Traffic

Prince
Rupert
10%

Churchill
0%

Thunder
Bay
19%

Western
Domestic
2%

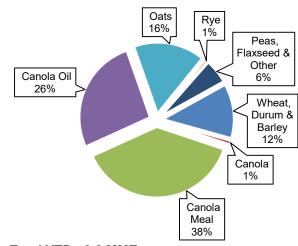
Total YTD - 20.4 MMT

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 2022-23 crop year this amounted to 20.4 MMT, up 45.3% from the previous year. Sixty-nine 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 rose by 56.2%. The west-coast increase was broadened by a 69.3% gain in Prince Rupert volumes as well as a 5.1% increase in Western Domestic traffic. Shipments to Thunder Bay also rose, albeit by a lesser 12.6%, while the port of Churchill reported no export grain shipments at all.

US Destined Grain by Commodity

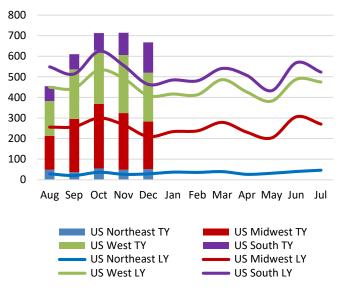


Total YTD - 3.2 MMT

GMP Data Table 2B-18

Total railway shipments into the US reached almost 3.2 MMT in the first five months of the 2022-23 crop year, up 16.7% from the tonnage moved in the same period a year earlier. Almost 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 declined marginally in December, averaging 3.7 MMT with steady producer deliveries as winter advanced and the holiday season approached. Overall space in the country system was good. Country stocks utilized 67% of the working capacity of the network. By province, stocks ranged from 58% and 65% of working capacity in Manitoba and Saskatchewan respectively, to 76% in Alberta, and 88% in British Columbia.

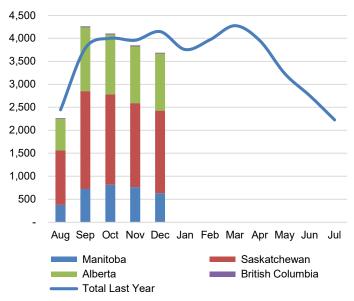
The average days-in-store in the primary-elevator system for the first five months of the crop year declined from the same period last year, falling 29.7% to 23.6 days.

| Table M-4 | DEC 2022 | 2022-23 YTD | Var. from Last YTD | |
|---------------------------------------|----------|----------------|-----------------------|--|
| Primary Elevator | | | | |
| Average Weekly Stocks (000's tonnes) | 3,689.7 | 3,576.0 | -2.7% | |
| Average Days in Store | 25.9 | 23.6 | -29.7% | |
| Railway Operations (days) | | | | |
| Cycle Time to Western Ports | 12.5 | 13.3 | -20.4% | |
| Cycle Time to Eastern Canada | 19.5 | 25.6 | 0.5% | |
| Cycle Time to US | 27.2 | 24.4 | -1.7% | |
| Loaded Transit to Western Ports | 5.8 | 5.4 | -17.8% | |
| Loaded Transit to Eastern Canada | 9.7 | 12.1 | -1.4% | |
| Loaded Transit to US | 11.6 | 9.8 | -2.9% | |
| Rail Fleet in Grain Service | 21,968 | 18,574 | 14.0% | |
| Western Canada Terminal Elevator | | | | |
| Average Weekly Stocks (000's tonnes) | 1,281.2 | 1,133.2 | -1.8% | |
| Average Days in Store | 10.1 | 10.1 | -28.9% | |
| Port Unloads (hopper cars) | 30,582 | 185,386 | 35.8% | |
| Terminal Out-of-Car Time | 19.9% | 12.5% | -43.2% | |
| Western Canada Port Operations | | | | |
| Average Vessel Time in Port (days) | 8.5 | 8.4 | -2.2% | |

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



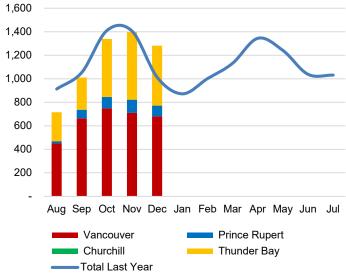
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary elevator stocks ended the last crop year averaging 2.2 MMT in store. They grew to average 4.3 MMT in September before retreating to 3.7 MMT in December. Wheat, including durum, and canola, comprise 66% 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)

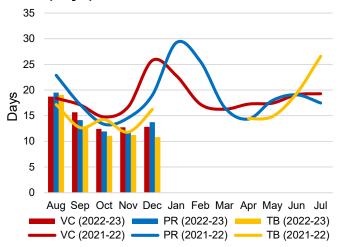


GMP Data Table 5C-2

Overall terminal elevator stocks averaged 1.3 MMT in December, a moderate decrease from the previous month as the GHTS faced winter operating conditions. Stocks declined at Vancouver, Prince Rupert and Thunder Bay. Wheat, including durum, and canola, comprise just over 79% of the total stock. In December, western ports utilized just 66% of their overall working capacity.



Railway Cycle Times to Western Ports (days)

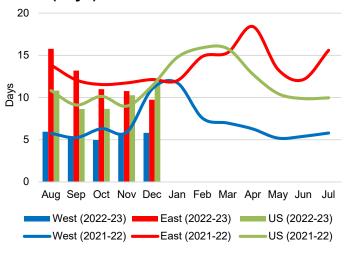


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 13.3 days in the first five months of the 2022-23 crop year, down 20.4% from the 16.7-day average reported a year earlier. This was largely the result of decreases in the Vancouver and Prince Rupert corridors, with car-cycle averages falling by 23.1% and 21.2% respectively. The Thunder Bay average fell by a lesser 14.2%.

A 1.7% decrease was noted in the cycle for US movements, which fell to an average of 24.4 days from 24.8 days the previous year. Conversely, the car cycle into Eastern Canada rose by 0.5%, to an average of 25.6 days from 25.5 days a year earlier.

Average Loaded Transit Times (days)

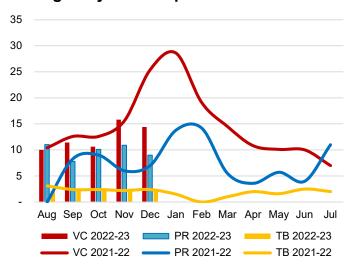


GMP Data Tables 5B-4, 5B-8, 5B-12

Loaded transit time for traffic destined to Western Canadian ports averaged 5.4 days in the first five months of the 2022-23 crop year, down 17.8% from the 6.6-day average posted a year earlier. This was primarily driven by a 20.3% decrease in the Vancouver-corridor average but supported by significant decreases in the Prince Rupert and Thunder Bay corridors as well, which fell by

17.8% and 13.4% respectively. The average into Eastern Canada fell by a more modest 1.4%, to 12.1 days from 12.3 days a year earlier. The average on US-destined traffic fell by 2.9%, to 9.8 days from 10.1 days.

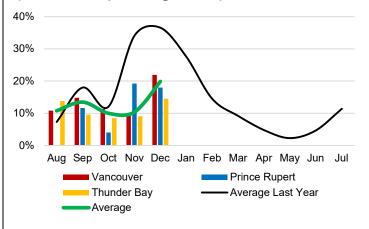
Average Days in Port per Vessel



GMP Data Table 5D-1

In December, the overall-average time vessels were in port waiting and loading grain was 8.5 days, 26.2% less than was the case in December 2021. The average fell at all ports from that seen in November. In December, the average days in port stood at 14.4 for Vancouver, 9.0 for Prince Rupert and 2.1 for Thunder Bay.

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



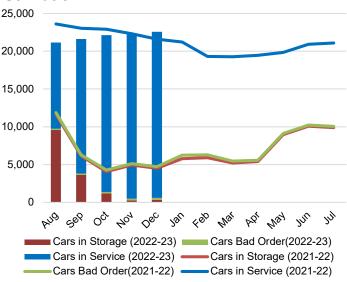
GMP Data Table 5C-5

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 climbed to 19.9% in December, up from 10.4% in November. Terminal out-of-car time

increased to 21.9% at Vancouver and to 14.5% at Thunder Bay, while falling to 18.0% at Prince Rupert.

Railway Grain Fleet Size and Utilization

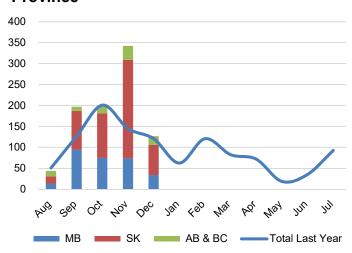


GMP Data Table 3B-2

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 declining 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 is seen by August 2022, rising to 11,413 followed by a jump to 21,968 by December. It is worth noting that in December, 97% of the overall fleet was in service to address the heavy shipping demands for western grain, with a minimal number of cars being reported in either storage or bad order status.

Producer Cars

Producer Cars Scheduled by Province



GMP Data Table 6B-2

Producer car shipments scheduled for December 2022 were 5.0% more than those in December a year ago. The previous crop year saw oats shipments comprising 54% of overall producer cars scheduled, while the first five months of the 2022-23 crop year registered oats losing ground, at only 47% of the overall producer-car number. Wheat and durum constitute a lesser 37% of the year-to-date total.



Quorum Corporation Suite 701, 9707 – 110 Street Edmonton, AB T5K 2L9 Email: info@quorumcorp.net Web: www.grainmonitor.ca Phone: (780) 447–2111 This report provides a summary of the data developed under the Grain Monitoring Program. Detailed monthly Data Tables can be found in Excel 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

