Grain Monitoring Program Report for: July 2021 / Q4 2020-21 CY

Release Date: August 26, 2021

GMP Dashboard

Table M-1	JUN 2021	JUL 2021	2020-21 YTD	Var. from Last YTD
Western Canadian GHTS Performance (Days)				
Total Time in System	45.5	47.3	42.2	0.8%
Average Days In Store – Country	26.2	28.4	25.4	7.0%
Loaded Transit Time	5.8	8.6	7.0	-6.5%
Average Days In Store – Terminal	13.5	10.3	9.8	-8.4%
Total Traffic ('000 tonnes)				
Primary Elevator Shipments	4,0441	2,609.7	53,876.8	3.6%
Railway Shipments (all Western Canada traffic)	4,299.5	3,276.2	61,593.8	5.2%
Western Port Terminal Shipments	3,101.1	2,426.6	44,655.6	11.7%
Railway Performance				
Avg. Loads on Wheels (Cars)	7,596	8,145	11,438	-1.3%
Total Western Port Car Cycle (days)	15.9	20.1	15.2	-6.9%
Port Performance				
Western Port Unloads (Number of Cars)	33,574	21,616	457,841	9.5%
Vessel Time in Port (days)	6.3	7.4	10.6	-13.7%

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

Overview

Railway grain shipments from Western Canada fell 23.8% in July 2021, to 3.3 MMT from June's 4.3 MMT. This was due to the combined effects of reduced volumes and the service disruptions occasioned by wildfires in BC. Despite the downturn, total grain shipments for the 2020-21 crop year rose by 5.2%, for a record 61.6 MMT. Port shipments for July totaled just 2.4 MMT, a 21.8% decrease from June volumes as supplies of the 2020-harvested crop dwindled and sales programs slowed correspondingly. Notwithstanding the year-end slowdown, year-to-date bulk shipments from western ports stand 11.7% higher than the previous crop year. Accompanying the decrease in shipments, is a 7.4-day average in the amount of time vessels spent in port in July, with the crop-year average measuring 10.6 days.

Highlights for July 2021 and Fourth Quarter 2020-21 CY

Traffic and Movement (page 2)

- Primary-elevator shipments were 53.9 MMT in the 2020-21 crop year, 3.6% more than in the previous year.
- Western Canadian rail shipments (from all primary/process elevators and producer-car sites) totaled 61.6 MMT in the 2020-21 crop year, 5.2% above the previous crop year's record of 58.6 MMT.
- Bulk shipments from Western Canadian ports totaled 44.7 MMT in the 2020-21 crop year, up 11.7% from last crop year.

System Efficiency and Performance (page 4)

- Average weekly primary-elevator stocks increased by 12.1% from last year-to-date. The average days-in-store declined 7.0%.
- Average weekly port-terminal stocks increased 3.5% from the same period last year, while average days-in-store fell 8.4%.
- Railcar cycle times rose sharply in July owing to wildfires that disrupted service, with the preliminary average for Western Canadian movements increasing by 26.4%, to 20.1 days from 15.9 days in June. However, the year-to-date average also fell by 6.9%, to 15.2 days from 16.3 days a year earlier.
- The 2020-21 crop-year average for vessel time in port is 10.6 days, a 13.7% decrease from that observed in the previous crop year.
- Port-terminal out-of-car time grew to 25.7% at Vancouver in July from 23.7% in June, while remaining at 0.0% for the second month at Prince Rupert. At Thunder Bay the out-of-car time grew to 5.7% in July from 3.7% the previous month.

Commercial Relations (page 6)

- Average primary-elevation charges decreased 0.1% in the 2020-21 crop year.
- Both CN and CP reduced their single-car freight rates at the beginning of August 2020, CN by about 3.8% and CP by a lesser 3.0%. CN advanced increases in each of the three succeeding months, with decreases following in March, April, and June, producing net reductions of 9.3% in the Vancouver and Prince Rupert corridors, and 14.4% in the Thunder Bay corridor. In comparison, CP left its rates on traffic destined to Vancouver and Thunder Bay unchanged until May 2021, then raised them by 5.0%, producing net increases of 1.6% and 1.9% respectively.
- Average terminal-elevation charges increased 5.0% in the 2020-21 crop year.

Infrastructure (page 6)

- The country-elevator network increased to 411 facilities from 402 in the 2020-21 crop year. Storage capacity rose by 4.4% to a record 9.3 MMT. Much of the gain was tied to the licencing of nine loop-track elevators, which now total 34.
- No changes were recorded against the railway network.
- Licencing of the Fraser Grain Terminal lifted the total number of terminal elevator facilities to 18, with almost 2.8 MMT in storage capacity.

Production and Supply

Statistics Canada's November survey for 2020 field-crop production in Western Canada stands at 77.7 MMT, a 3.5% increase over 2019's 75.1 MMT harvest. This ranks as the largest crop on record, surpassing 2013's 77.0 MMT. The survey of producers' harvested acreage and yield data was conducted between October 9 and November 15, 2020. It resulted in an increase in the overall production estimate of 1.4 MMT from the model-based estimate published in September.

When coupled with July's 8.1 MMT of carry-forward stocks, some 20.8% less than in 2019, the overall grain supply is estimated at 85.8 MMT. Establishing a new record, it stands some 0.6% above the previous record reached just last year when the total supply was 85.3 MMT.

Table M-2:	2020	2019	Var. from Last Yr.
Production & Carry Over (000's tonnes)			
Western Canada Total Production	77,745.1	75,090.3	3.5%
Western Canada On Farm & Primary Elevator Carry Forward Stock	8,074.6	10,196.2	-20.8%
Total Grain Supply	**85,819.7**	**85,286.5**	**0.6%**

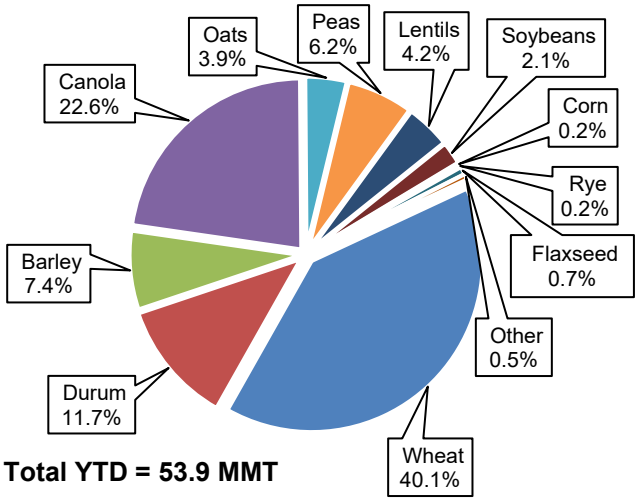
Traffic and Movement

Reflecting declining stock levels and shipping programs, July deliveries averaged just over 0.5 MMT per week. Average weekly primary-elevator stock levels declined to 2.8 MMT, with good space available in facilities across the prairies.

Table M-3	JUL 2021	2020-21 YTD	Var. from Last YTD
Primary Elevator Shipments (000's tonnes)			
Manitoba	463.4	9,526.1	12.2%
Saskatchewan	1,395.5	29,034.7	1.4%
Alberta	743.8	15,089.4	4.3%
British Columbia	7.0	226.6	-43.0%
Total	**2,609.7**	**53,876.8**	**3.6%**
Western Canada Railway Traffic (000's tonnes)			
Shipments to Western Ports	2,394.2	49,774.3	7.0%
Shipments to Eastern Canada	224.8	4,015.4	5.0%
Shipments to US & Mexico	581.1	6,946.9	-4.3%
Shipments Western Domestic	76.1	857.2	-13.1%
Total	**3,276.2**	**61,593.8**	**5.2%**
Western Port Unloads (Number of Cars)			
Vancouver	15,490	318,330	19.4%
Prince Rupert	619	51,501	-11.2%
Churchill	0	1,063	-27.9%
Thunder Bay	5,507	86,947	-5.6%
Total	**21,616**	**457,841**	**9.5%**

Table M-3	JUL 2021	2020-21 YTD	Var. from Last YTD
Terminal Elevator Shipments (000's tonnes)			
Vancouver	1,635.1	31,315.3	21.9%
Prince Rupert	192.2	4,990.5	-6.9%
Churchill	0.0	95.7	-30.3%
Thunder Bay	599.3	8,254.1	-6.1%
Total	**2,426.6**	**44,655.6**	**11.7%**

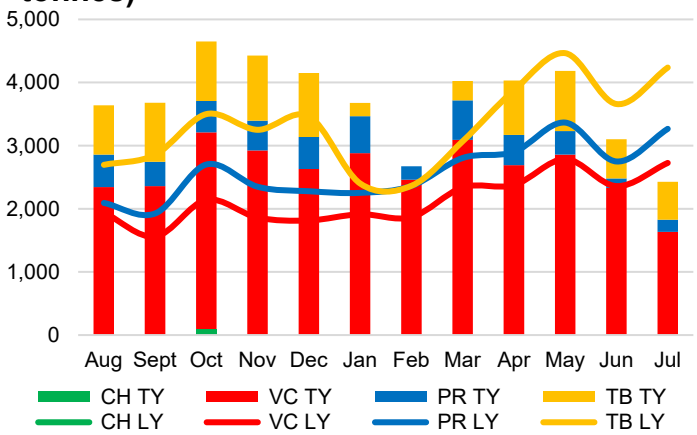
Primary Elevator Shipments by Commodity



GMP Data Table 2A-1

Despite declining in the final months of the 2020-21 crop year, grain shipments from primary elevators still registered 3.6% more than in the previous year to achieve a new record. Wheat, including durum, and canola continue to constitute the largest proportion of the movement at 74.4%. Movement of peas and lentils contributed 10.4% of the balance.

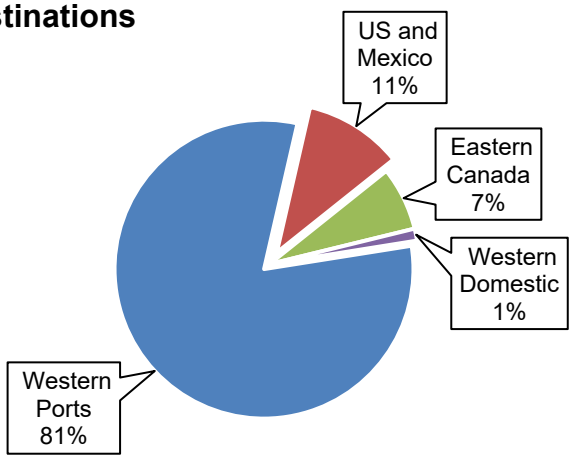
Terminal Elevator Shipments (000's tonnes)



GMP Data Table 2C-1

Bulk shipments from western ports grew to a new record level in the 2020-21 crop year, registering an 11.7% increase on a year-over-year basis. Vancouver recorded a sizeable increase at 21.9%, while Prince Rupert and Thunder Bay registered declines of 6.9% and 6.1% respectively.

Western Canadian Grain Destinations

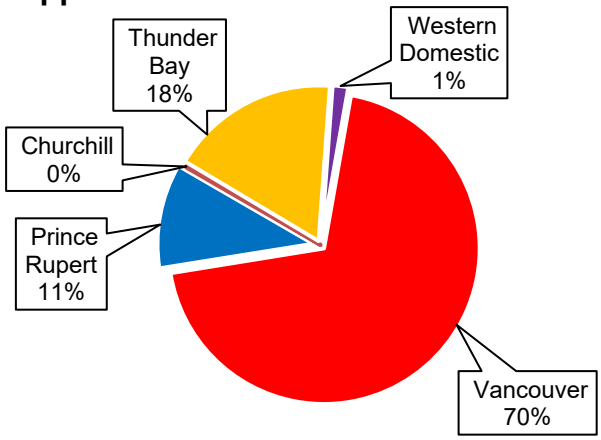


Total YTD = 61.6 MMT

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

Owing in large measure to full operation of the new G3 Terminal in Vancouver, railway grain shipments from Western Canada rose to a record 61.6 MMT in the 2020-21 crop year, 5.2% more than the 58.6 MMT handled the previous year. The majority, about 49.8 MMT, or 81%, was directed to Western Canadian ports in support of offshore sales; 7.0% over what had been handled a year earlier. This was supported by a 5.0% increase in shipments to Eastern Canada. Running counter to these gains were reductions in movements to Western Domestic destinations, which fell by 13.1%, and a combined 4.3% for shipments into the US and Mexico.

Western Canadian Destined Hopper Car Traffic

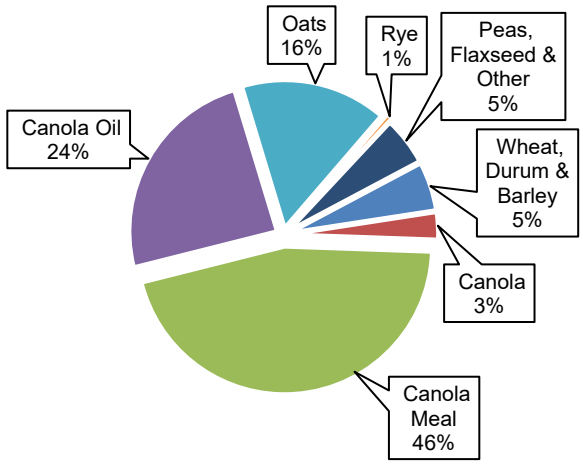


Total YTD - 48.4 MMT

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 2020-21 crop year this amounted to over 48.4 MMT, up 7.1% from 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 17.4% increase in hopper-car shipments to Vancouver was largely responsible for shaping the overall increase in traffic. Detracting from this were declines in shipments to Prince Rupert and Thunder Bay, which fell by 16.1% and 7.0% respectively. Reductions in shipments to Churchill and Western Domestic destinations, which fell by 20.9% and 13.3% respectively, chipped still further away at the total.

US Destined Grain by Commodity

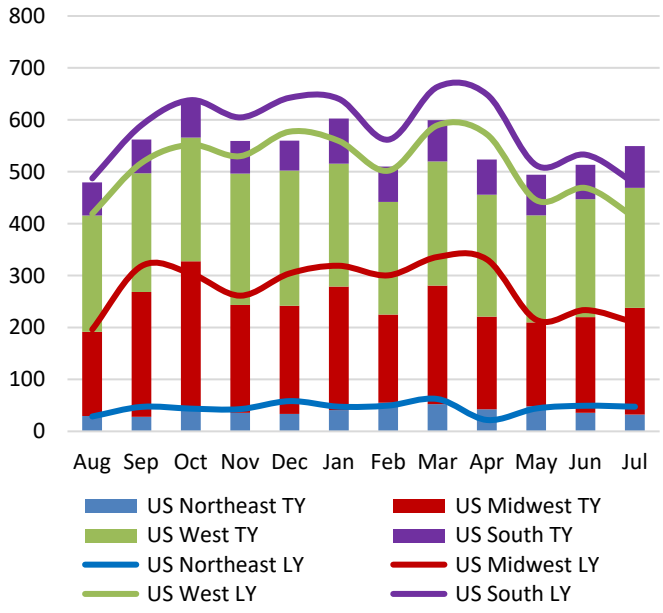


Total YTD - 6.6 MMT

GMP Data Table 2B-18

Total railway shipments into the US reached just under 6.6 MMT in the 2020-21 crop year, down 5.8% from that handled a year earlier. About 80% of these shipments were directed into the Midwestern and Western US, with canola and canola products remaining dominant.

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



GMP Data Table 2B-18

System Efficiency and Performance

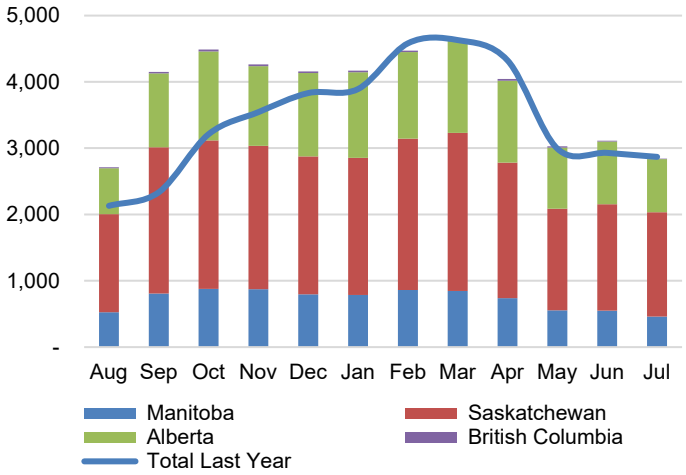
By the close of the crop year, July primary-elevator stocks returned to 2.8 MMT, just slightly higher than the 2.7 MMT registered at the starting point in August. The overall crop-year average is 3.8 MMT. Space in the country system was good for most of the crop-year. Country stocks utilized 53% of the working capacity of the network in July. By province, stocks ranged from 35% and 44% in British Columbia and Manitoba respectively, to 50% and 59% in Alberta and Saskatchewan respectively.

The average days-in-store in the primary-elevator system for the 2020-21 crop year grew from last year, up 7.0% to 25.4 days.

Table M-4	JUL 2021	2020-21 YTD	Var. from Last YTD
Primary Elevator			
Average Weekly Stocks (000's tonnes)	2,842.4	3,847.2	12.1%
Average Days in Store	28.4	25.4	7.0%
Railway Operations (days)			
Cycle Time to Western Ports	20.1	15.2	-6.9%
Cycle Time to Eastern Canada	29.5	21.9	-4.4%
Cycle Time to US	28.3	26.1	2.2%
Loaded Transit to Western Ports	8.6	7.0	-6.5%
Loaded Transit to Eastern Canada	11.0	10.7	-1.8%
Loaded Transit to US	10.7	10.7	8.0%
Rail Fleet in Grain Service	15,781	21,549	-3.7%
Western Canada Terminal Elevator			
Average Weekly Stocks (000's tonnes)	943.1	1,265.3	3.5%
Average Days in Store	10.3	9.8	-8.4%
Port Unloads (hopper cars)	21,616	457,841	9.5%
Terminal Out-of-Car Time	19.1%	15.1%	42.5%
Western Canada Port Operations			
Average Vessel Time in Port (days)	7.4	10.6	-13.7%

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

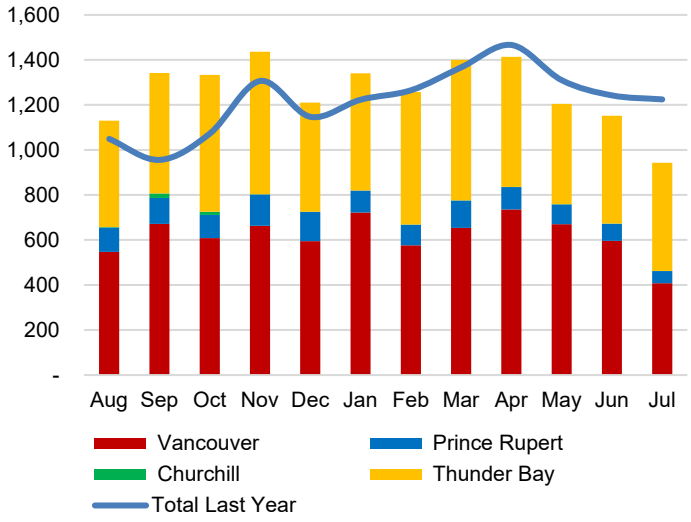
Average Weekly Primary Elevator Stocks (000's tonnes)



GMP Data Table 5A-2

Primary elevator stocks ended the last crop year averaging 2.9 MMT in store. In August, they pulled back further to average 2.7 MMT before reversing direction and rising to average 4.6 MMT in March. By July, they once again pulled back to average 2.8 MMT. Wheat, including durum, and canola comprise 72% of the total stock. At 18% of the stock, barley, oats and peas made up much of the balance.

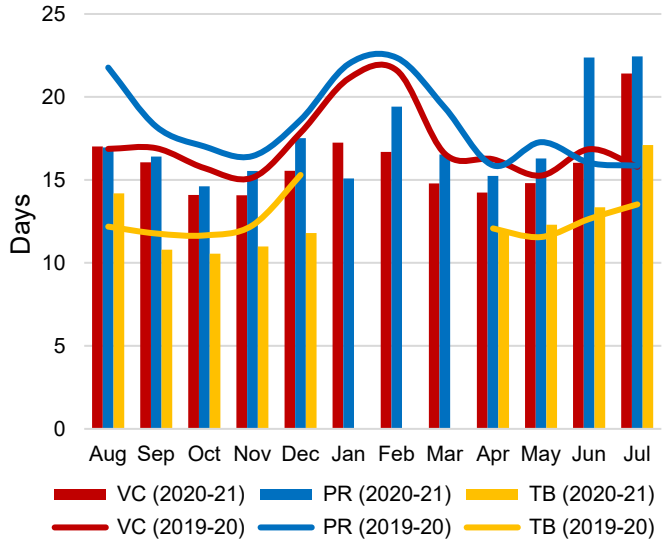
Average Weekly Terminal Elevator Stocks (000's tonnes)



GMP Data Table 5C-2

Overall terminal elevator stocks averaged 1.1 MMT in the 2020-21 crop year, 3.5% greater than the previous year. July stocks fell by 18.1% from those one month earlier in June as export programs declined. Terminal stocks posted a 23.0% decline from the all-ports levels seen in July 2020. Wheat, including durum, and canola comprise over 85% of the total stock. In July, western ports utilized just 49% of their overall working capacity.

Railway Cycle Times to Western Ports (days)

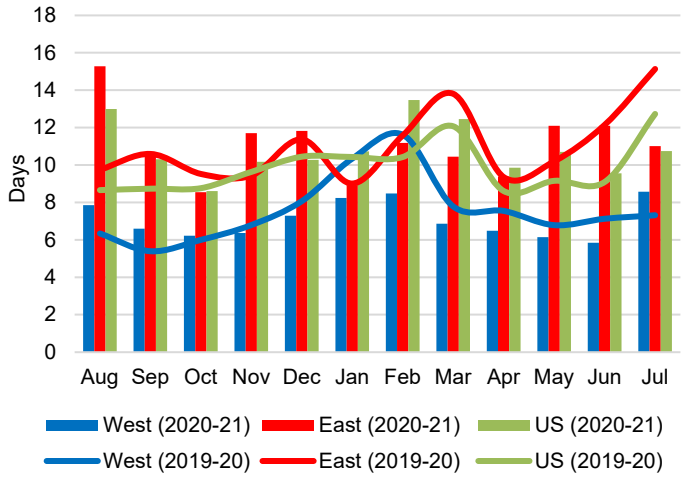


GMP Data Table 5B-1

Railway car cycles to Western Canadian ports averaged 15.2 days in the 2020-21 crop year, down 6.9% from the corresponding 16.3-day average posted in the previous crop year. This result was shaped by decreases in all three corridors, with the Vancouver average falling 8.0%, the Prince Rupert average 8.2%, and the Thunder Bay average 3.1%.

The average car cycle on movements into Eastern Canada also declined, falling by 4.4%, to 21.9 days from 22.9 days a year earlier. However, the car cycle for movements into the United States rose by 2.2%, to an average of 26.1 days from the 25.5-day average posted the previous crop year.

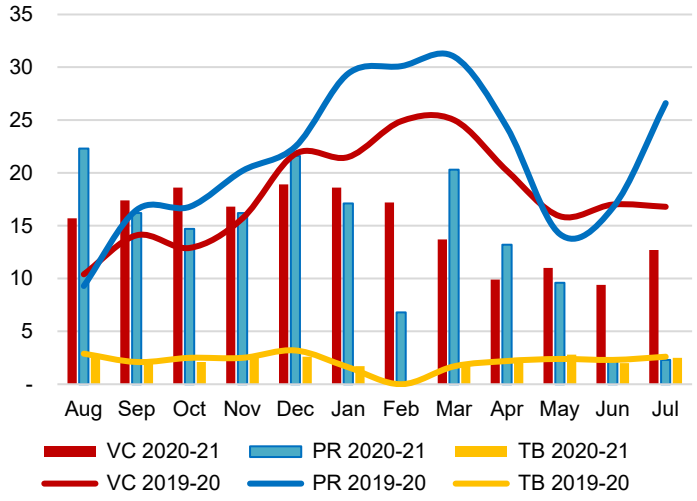
Average Loaded Transit Times (days)



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

The loaded transit time for traffic destined to Western Canadian ports averaged 7.0 days in the 2020-21 crop year, down 6.5% from the 7.4-day average posted a year earlier. This was the product of decreases in all three corridors, with the Vancouver average falling 6.8%, the Prince Rupert average 11.3%, and the Thunder Bay average 4.4%. A 1.8% decrease was observed on movements into Eastern Canada, with the average loaded transit time declining to 10.7 days from the 10.9 days posted twelve months before. Conversely, the average on movements into the United States increased by 8.0%, to 10.7 days from 9.9 days.

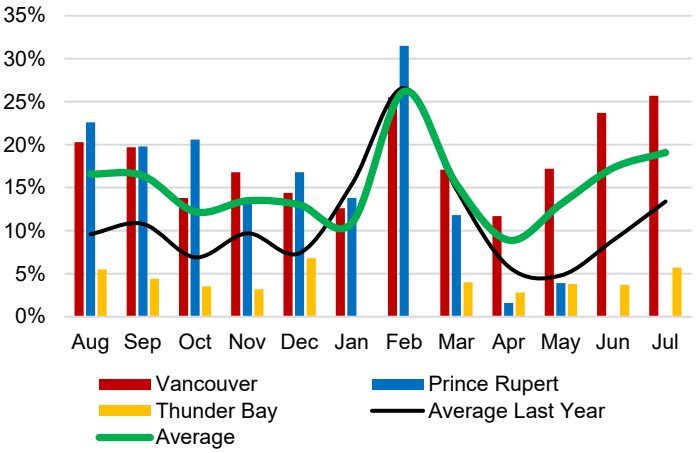
Average Days in Port per Vessel



GMP Data Table 5D-1

In July, the overall average time vessels were in port waiting and loading grain grew to 7.4 days from 6.3 days the month before. The crop-year average stands at 10.6 days, 13.7% below that registered in the previous crop year. Vancouver and Thunder Bay experienced increases from June levels, while Prince Rupert held constant with the previous month. For the month of July, days in port stood at 12.7 for Vancouver, 2.3 for Prince Rupert and 2.5 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 grew to 19.1% in July, with a overall-crop-year average of 15.1%. Terminal out-of-car time at Vancouver grew to 25.6% in July, remained at 0.0% at Prince Rupert and grew to 5.7% at Thunder Bay.

Commercial Relations

Table M-5 Rates: $CDN per tonne	Q4 2020-21	Index (1999=100)	% Change YTD
Avg. Primary Elevation	16.58	138.2	-0.1%
Rail to Vancouver			
CN	51.23	139.5	-9.3%
CP	61.51	167.1	1.6%
Rail to Pr. Rupert			
CN	51.23	123.3	-9.3%
Rail to Thunder Bay			
CN	47.31	146.4	-14.4%
CP	53.01	176.2	1.9%
Average Terminal Elevation	15.12	165.8	5.0%

Note: *Commercial rates are measured on a quarterly basis, the above table refers to rates at the close of the fourth quarter of the 2020-21 crop year (as at 31 July 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 initially reduced their single-car freight rates at the beginning of the 2020-21 crop year. In the case of CN, this amounted to an across-the-board reduction of about 3.8%. However, the reduction was reversed with consecutive increases of up to 5.0% in September, 5.0% in October, and 1.9% November. The prevailing rates remained unchanged until March 2021 when CN reduced its rates in the Thunder Bay corridor by 13.0%, followed by a 9.1% cut in its West Coast rates in April. An across-the-board reduction of 7.5% followed in June 2021. By the close of the fourth quarter CN had effectively reduced its rates on movements to Vancouver and Prince Rupert by 9.3%, and Thunder Bay by 14.4%. In comparison, CP applied an initial reduction of 3.2% on its rates to Vancouver at the beginning of August, with a marginally lesser cut of 2.9% on those to Thunder Bay. Unlike CN, however, CP maintained these rates unchanged until May 2021, when the carrier applied an across-the-board increase of 5.0%. At the close of the crop year, these pricing actions had effectively lifted CP's rates in the Vancouver and Thunder Bay corridors by 1.6% and 1.9% respectively.

Commercial Developments

BC wildfires disrupt railway service: A protracted period of extremely hot, dry weather in British Columbia triggered the most devastating rash of wildfires in recent memory. At Lytton, a village located at the confluence of the Fraser and Thompson rivers, temperatures soared to an all-time Canadian record of 49.6° C on 29 June 2021. One day later, a wildfire swept through the community, destroying it along with much of the CN and CP railway infrastructure passing through it. Mainline rail service into and out of Vancouver was embargoed pending completion of repairs, backlogging the movement of all commodities – including grain – to the port. The CP line was reopened to traffic on 5 July while clearance of the CN line, which sustained more extensive damage, came a week later. Given public-safety concerns, however, Transport Canada issued a Ministerial Order directing CN and CP to suspend any movements between Kamloops and Boston Bar for 48 hours beginning at midnight on 9 July. This was followed a day later by another Ministerial Order requiring the railways to undertake additional mitigation measures in the face of extreme fire risks. Although rail service had resumed by mid July, the flow of traffic remained greatly constricted. Fortunately for grain, this occurred at the tail end of a record shipping season, when volumes had already fallen off sharply, and the downstream impact of reduced terminal deliveries and vessel delays were minimized.

Ocean freight rates rise: Ocean freight rates, as measured by the Baltic Dry Index (BDI), more than doubled during the course of the 2020-21 crop year, rising to about 3300 points from 1500 points a year earlier. While much of the increase was concentrated in the latter half of the crop year, the gain marked a continuation in the BDI's rise from the near 500-point low reported at the beginning of 2020. Moreover, it also denoted the first sustained rise above the 2400-point level in over a decade. Much of the BDI's increase can be traced to the heightened demand generated by China's large purchases of grain, coal, and iron ore, which reportedly represented about half of all bulk marine movements in 2020. And although ocean freight tends to account for somewhere between five and ten percent of the total cost associated with transporting grain from the prairies to overseas markets, its escalation has implications beyond a marginal change in the international competitiveness of Canadian grain. Chief among these is the grain-handlers' potential exposure to heavier vessel demurrage if programmed ship-loading is impacted by delayed railway deliveries at port. The demand for ocean carriage has spurred new-ship construction, particularly in the container trade, but deliveries have long lead times and ocean freight rates are not expected to moderate until they begin entering service some two years from now.

Infrastructure

Apart from the railways' car fleet, GMP measures relating to infrastructure are reported on a quarterly basis. The 2020-21 crop year brought some notable changes to the GHTS's physical infrastructure.

The country-elevator network grew by nine facilities, increasing to 411 from 402. This gain was the product of various licencing changes, which also brought four new loop-track facilities to Alberta, four to Saskatchewan, and one to Manitoba. By the close of the crop year, a total of 34 such facilities were in operation. The addition of 393,800 tonnes in new storage capacity lifted the system total to a record 9.3 MMT.

There were no changes recorded against the railway network in the 2020-21crop year. Total mileage remained unchanged at 17,265.7 route-miles, with 84.5% being operated by CN and CP.

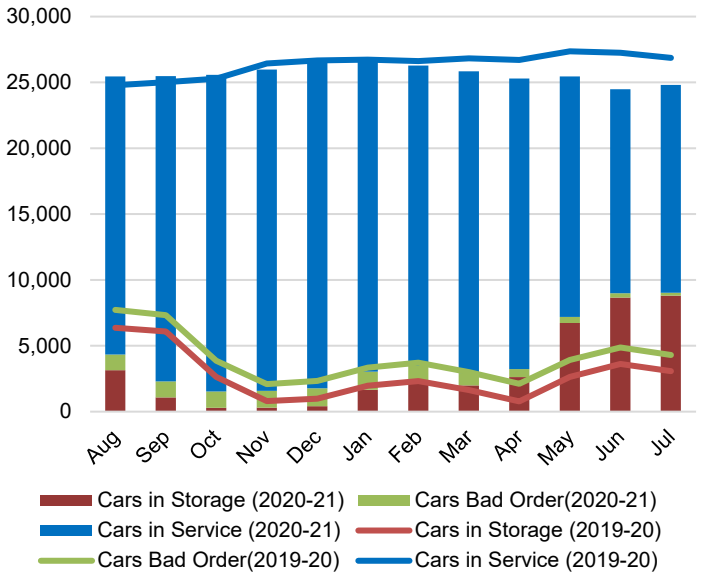
The terminal elevator network expanded with the licencing of the Fraser Grain Terminal in the second quarter, lifting the total number of facilities to 18 with almost 2.8 MMT in storage capacity.

Table M-6	Q4 2020-21	Index (1999=100)	% Change YTD
Country Elevator			
Primary and Process Elevators (Count)	411	40.9	2.2%
Storage Capacity (000's tonnes)	9,269.2	131.9	4.4%
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*	24,880	n/a	-2.7%
Terminal Elevator			
Terminal Facilities (Count)	18	128.6	5.9%
Storage Capacity (000's tonnes)	2,767.5	108.2	2.7%

** Hopper Car Fleet Size represents all cars in all statuses for the 2020-21 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 2019-20 crop year as in July 2020, a weekly average of 22,562 cars, representing 84% of the fleet, was in active service. Cars in service fell further in August, to an average of 21,125 per week before reversing directions and climbing to 24,896 in December. By July, they had again retreated to 15,494 cars. The average cars in service for the 2020-21 crop year represent 84% of the total fleet. The balance, comprising 16% 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

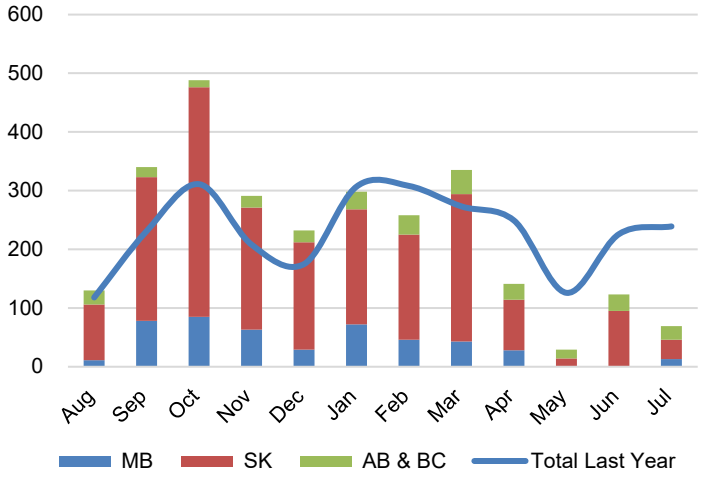
No change was registered in the number of producer-car loading sites in the last quarter of the 2020-21 crop year. The total number of available producer-car loading locations at the end of July stands at 272.

Table M-7 Producer Car Loading Sites	Q4 2020-21	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 2020-21	2020-21 YTD	Var. from Last YTD
Manitoba	13	468	38.5%
Saskatchewan	142	1,976	-0.4%
Alberta & B.C.	66	290	-35.4%
Total	**221**	**2,734**	**-1.3%**

Producer cars scheduled for the fourth quarter were 62.6% less that in same period last crop year. The overall crop-year-to-date number marks a slight downturn of 1.3% from the previous year. With the slide in fourth-quarter shipments, what looked like the second year-over-year increase in producer-car movement since the 2013-14 crop year evaporated.

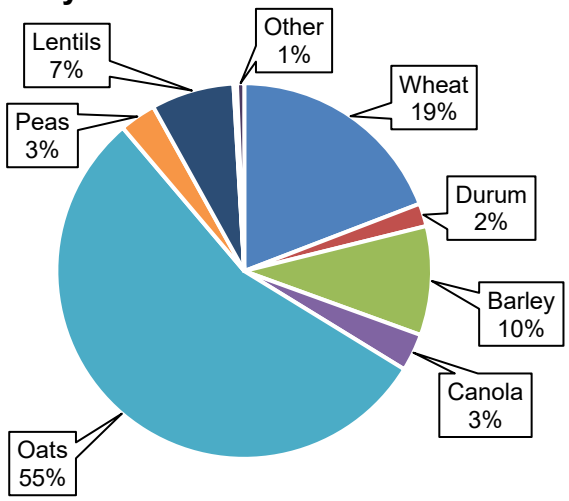
Producer Cars Scheduled by Province



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 2020-21 crop year continue to reflect this trend, with oats comprising 55% of the total, while wheat, durum and barley combined comprise only 31%. Special crops such as peas, lentils and chickpeas contributed 10%, while oilseeds rounded out most of the final 4% of the total volume.

Producer Cars Scheduled by Commodity



GMP Data Table 6B-2

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 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