

# Grain Monitoring Program

## Weekly Performance Update

February 27, 2018

For Grain Week 29 (2017-18 CY)

### Summary

	This Week	Last Week	Var. from Last Year	
<b>1. Stocks in Store (Tonnes 000)</b>				
Country Elevators	↑ 4,199.5	4,188.8	11%	
% of Working Capacity	87%	87%		
Terminal Elevators	↑ 1,178.1	1,160.2	-5%	
% of Working Capacity	68%	67%		
<b>2. Country Deliveries (Tonnes 000)</b>				
Country Deliveries	↓ 727.4	756.7	-18%	
<b>3. Railway Car Supply to Western Ports (Cars)</b>				
CN Allocation Plan	↓ 4,078	4,197	-26%	
CN Unloads	↑ 2,286	1,768	-30%	
CP Allocation Plan	n/a	n/a	n/a	
CP Unloads	↓ 2,365	2,410	-3%	
<b>4. Port Performance</b>				
Total Weekly Unloads	↑ 4,651	4,178	-18%	
4 Week Rolling Average	↓ 4,959	5,289	n/a	
Var. to 4 Week RA	↑ -6%	-21%	n/a	
YTD Unloads	↑ 209,870	205,219	-5%	
Weekly Out of Car Time	↓ 21.2%	26.6%	6%	
<b>5. Shipments (YTD Tonnes 000)</b>				
Vancouver	↑ 12,033	11,832	0%	
Prince Rupert	↑ 2,753	2,704	-9%	
Thunder Bay	↑ 4,029	4,026	-13%	
<b>Total Western Canada</b>	<b>↑ 18,815</b>	<b>18,562</b>	<b>-4%</b>	
<b>6. Vessels as of 2/25/2018</b>				
Vancouver	Vessel Line Up	↑ 31	24	11%
	Vessels Cleared	↓ 4	8	-56%
	Vessels Incoming	↑ 16	11	n/a
Pr. Rupert	Vessel Line Up	↓ 6	8	-33%
	Vessels Cleared	↑ 4	1	300%
	Vessels Incoming	↓ 1	2	n/a
<b>7. Weather</b>				
	Wk 29 (Actual)	Wk 30 (Actual)	Wk 31 (Forecast)	
Winnipeg Days < -25 °C	—	0	0	0
Edmonton Days < -25 °C	—	0	0	0
Vancouver Days Precip > 8 mm	—	2	1	1

#### 1. Stocks in Store: (Page 2)

- Country stocks remained at 4.2 MMT in Week 29 utilizing 87% of the system's working capacity.
- Total western port terminal stocks remained at 1.2 MMT in Week 29, utilizing 68% of the working capacity.

#### 2. Country Deliveries: (Page 2)

- Producer deliveries were 727,400 tonnes in Week 29.

#### 3. Railway Car Supply: (Page 3)

- Railcar allocation plans are supplied by CN to Week 31 of the 2017-18 grain year (see page 3 for details).

#### 4. Port Performance: (Page 4)

- Total western port unloads are 6% lower than the 4-week rolling average and 18% lower than Week 29 last year.
- West Coast unloads were 4,536 cars (Vancouver 3,544 and Prince Rupert 992), 7% lower than the 4-week rolling average and 19% lower than Week 29 last year.
- Thunder Bay terminals unloaded 115 cars, 10% higher than the 4-week rolling average and 72% higher than Week 29 last year.
- Year to date total western port unloads are 5% lower than same period last year. The corresponding tonnage is 5% lower.
- The total average terminal out of car time (OCT) decreased to 21.2% from 26.6% in the previous week. The OCT time for Week 29 was 23% in Vancouver, 16% in Prince Rupert, and 0% in Thunder Bay.

#### 5. Shipments: (Page 5)

- Year to date Western Canadian shipments from port terminal elevators at Week 29 are 4% lower than the same period last year and 1% lower than the 5-year average.

#### 6. Vessels: (Page 5)

- Week 30 lineup at Vancouver increased to a total of 31 vessels (The current one-year average at Vancouver is 22 vessels). Of the 31, 9 were at berth, 10 were anchored at English Bay, and 12 were anchored along the southern shore of Vancouver Island.
- Prince Rupert decreased to a total of 6 vessels (The current one-year average at Prince Rupert is 4 vessels).
- Vessels cleared from Vancouver were 4, and from Prince Rupert were 4 in Week 30 of the 2017-18 crop year.

#### 7. Weather: (Page 6)

- Weather is not expected to affect the Grain Handling Transportation System in Week 31.

**Note:** Vessels incoming for the current week represents vessels forecasted to arrive in next grain week. Vessels incoming for the previous week represents the number of vessels that arrived in the current reporting week.

# 1. Stocks in Store

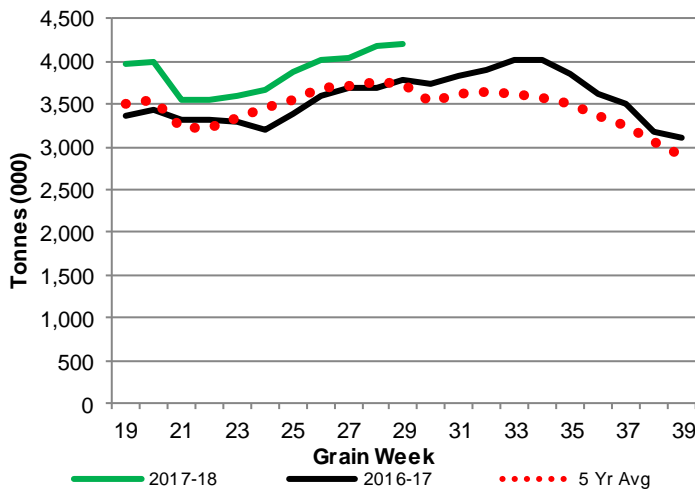
1-A1 Country Stocks ('000 tonnes) – Week 29

	MB	SK	AB	BC	Total
2017-18	851.6	2,185.9	1,132.1	29.9	4,199.5
2016-17	885.3	1,852.1	1,020.7	32.5	3,790.6
5 Yr Avg	803.7	1,902.5	1,006.5	30.1	3,742.7
Var % - LY	-4%	18%	11%	-8%	11%
Var % - 5 Yr Avg	6%	15%	12%	-1%	12%
Storage Capacity	1,577.1	3,878.3	1,913.7	41.1	7,410.2
Estimated Working Capacity	1,025.1	2,520.9	1,243.9	26.7	4,816.6
17-18 % of Wkg Cap	83%	87%	91%	112%	87%

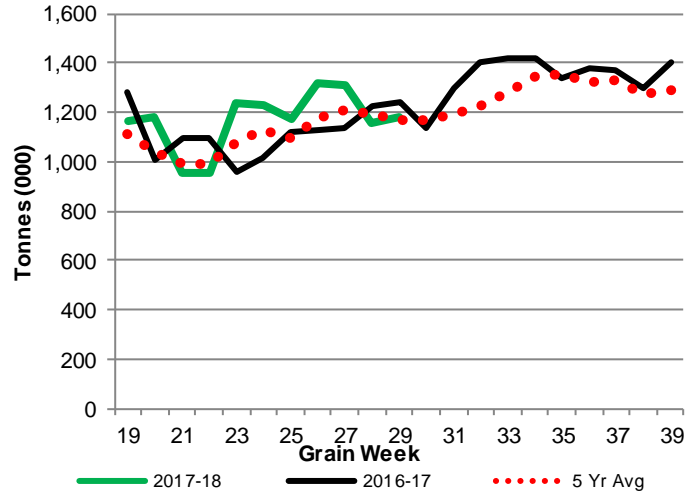
1-B1 Terminal Stocks ('000 tonnes) – Week 29

	West Coast	Churchill	Thunder Bay	Total
2017-18	591.9	29.5	556.7	1,178.1
2016-17	758.3	29.5	456.1	1,243.9
5 Yr Avg	666.0	34.8	471.9	1,172.6
Var % - LY	-22%	0%	22%	-5%
Var % - 5 Yr Avg	-11%	-15%	18%	0%
Storage Capacity	1,187.5	140.0	1,157.5	2,485.0
Estimated Working Capacity	831.2	98.0	810.3	1,739.5
17-18 % of Wkg Cap	71%	30%	69%	68%

1-A2 Weekly Country Stocks in Store



1-B2 Weekly Terminal Stocks in Store

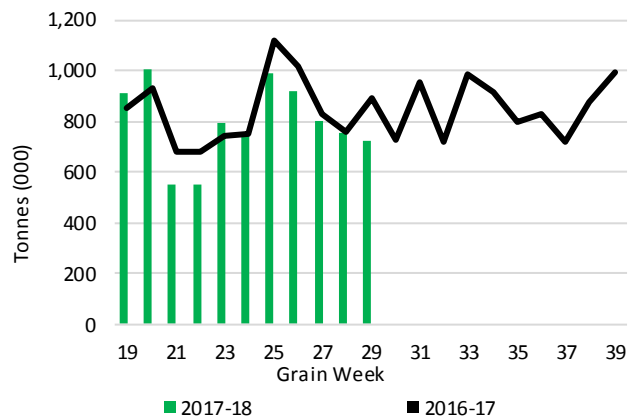


# 2. Country Deliveries

2-A Weekly Country Deliveries ('000 tonnes) - Week 29

	MB	SK	AB	BC	Total
2017-18	111.4	385.6	227.0	3.4	727.4
2016-17	118.7	453.4	313.0	7.4	892.4
4 Wk Avg	116.1	410.8	268.0	5.6	800.5
Var % to Last Year	-6%	-15%	-27%	-54%	-18%
Var % To 4 Wk Avg	-4%	-6%	-15%	-39%	-9%

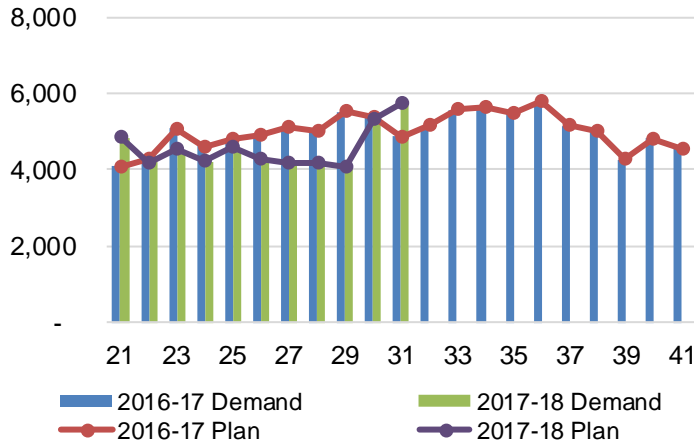
2-B 2017-18 Weekly Country Deliveries vs 2016-17



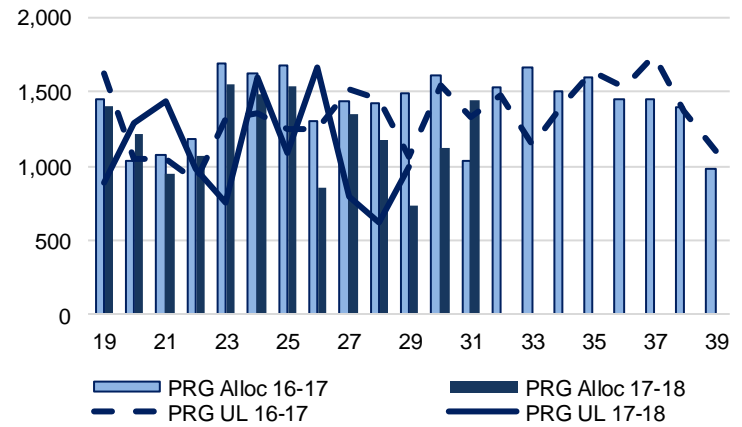
### 3. Railway Car Supply

**Special Note to readers:** CP discontinued publishing weekly railcar spotting plans in Week 12 of the 2014-15 crop year (GCRS Service Report). CN continues to publish a weekly plan and the graphs below reflect CN's plan to Week 31 of 2017-18. Note that the orders accepted do not necessarily reflect shipper demand, but rather the railways' acceptance of shippers' car orders. When both railways provide the order fulfillment data requested with the expansion of the GMP mandate, which was announced on February 3, 2014, a complete set of metrics will be presented.

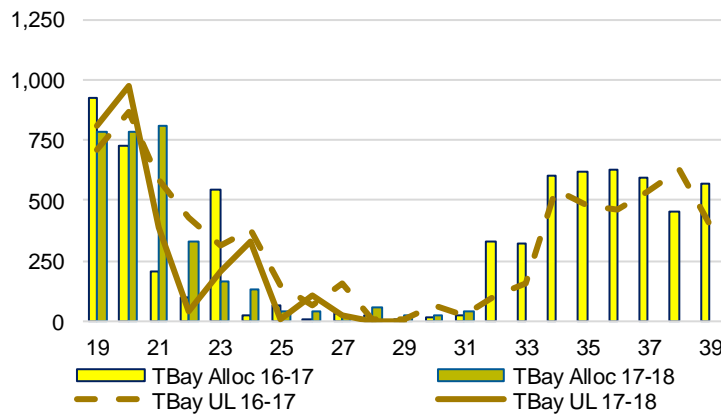
**3-A: Canadian National Planned Car Allocation vs. Demand (# of Cars) To Week 31 2017-18 Crop Year**



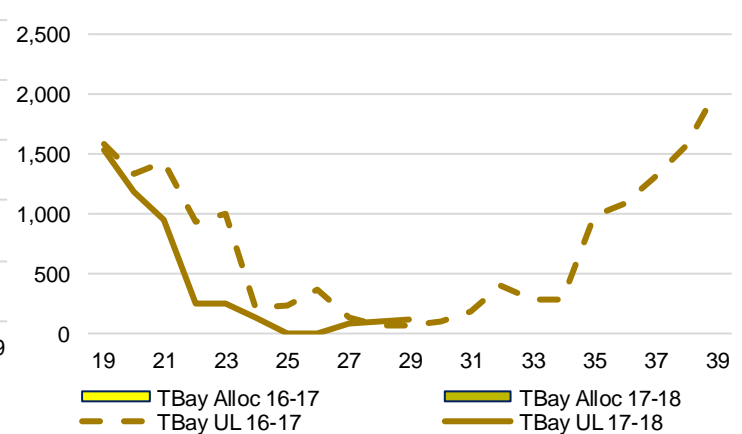
**3-B3: Canadian National Planned Car Allocation to Western Ports Vs. Corridor Unloads at Port (# of Cars) – Prince Rupert**



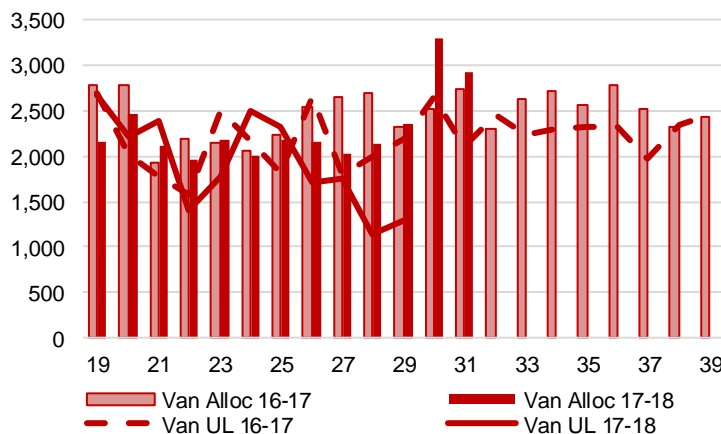
**3-B1: Canadian National Planned Car Allocation to Western Ports Vs. Corridor Unloads at Port (# of Cars) – Thunder Bay**



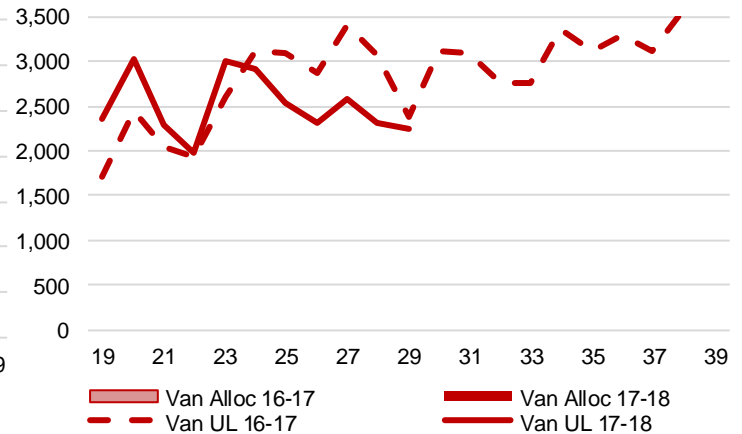
**3-C1: Canadian Pacific Planned Car Allocation to Western Ports vs. Corridor Unloads at Port (# of Cars) – Thunder Bay**



**3-B2: Canadian National Planned Car Allocation to Western Ports Vs. Corridor Unloads at Port (# of Cars) – Vancouver**



**3-C2: Canadian Pacific Planned Car Allocation to Western Ports vs. Corridor Unloads at Port (# of Cars) – Vancouver**



## 4. Port Performance

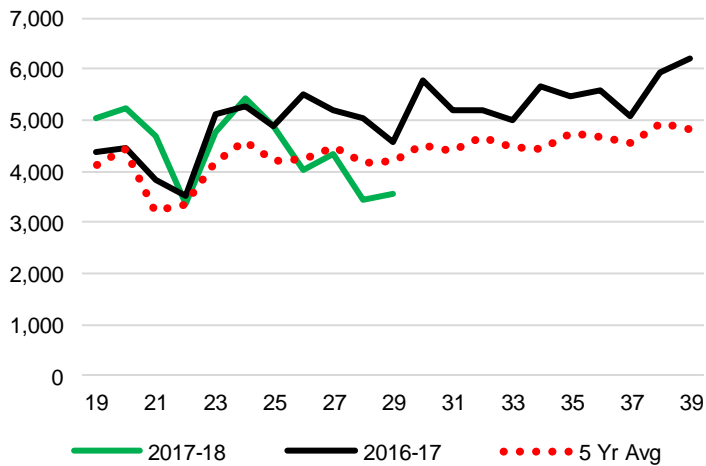
4-A Weekly Unloads by Port (Cars) – This Year for Week 29, 4-Week Rolling Average and Variances

	Vancouver	Prince Rupert	West Coast	Thunder Bay	Churchill	Total
2017-18	3,544	992	4,536	115	-	4,651
2016-17	4,570	1,057	5,627	67	-	5,694
4 Wk Avg	3,836	1,018	4,854	105	-	4,959
Var % to Last Year	-22%	-6%	-19%	72%	n/a	-18%
Var % to 4 Wk Avg	-8%	-3%	-7%	10%	n/a	-6%

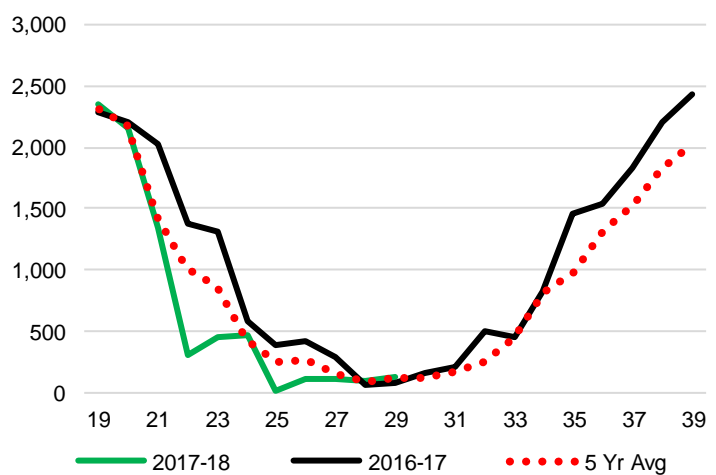
4-B Railcar Unloads and Tonnes – This Year to Date as of Week 29 and Variances

	Vancouver	Prince Rupert	West Coast	Thunder Bay	Churchill	Total
<b>Total Cars</b>						
2017-18	134,571	31,059	165,630	44,240	-	209,870
2016-17	134,536	36,523	171,059	50,983	-	222,042
5 Yr Avg	124,915	35,704	160,619	47,001	2,686	210,306
Var % to Last Year	0%	-15%	-3%	-13%	n/a	-5%
Var % to 5 Yr Avg	8%	-13%	3%	-6%	-100%	0%
<b>Total Tonnes</b>						
2017-18	12,117,660	2,802,179	14,919,839	4,046,444	-	18,966,283
2016-17	12,052,452	3,266,331	15,318,782	4,660,705	-	19,979,487
5 Yr Avg	11,146,614	3,180,261	14,326,875	4,289,655	294,229	18,910,759
Var % to Last Year	1%	-14%	-3%	-13%	n/a	-5%
Var % to 5 Yr Avg	9%	-12%	4%	-6%	-100%	0%

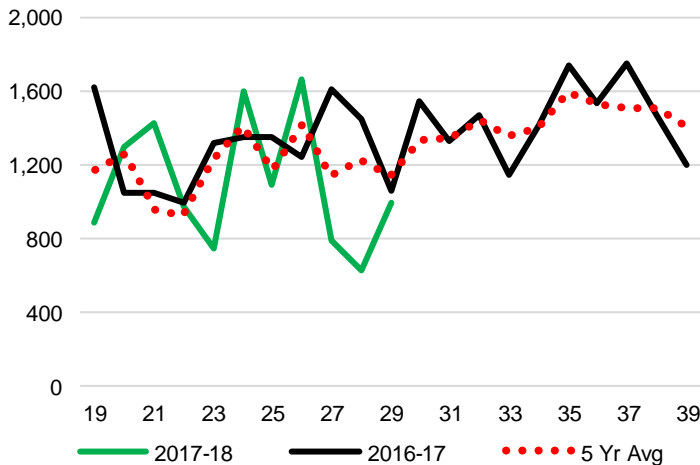
4-C Vancouver Unloads (# of Cars)  
(This Year vs. Last Year and the 5-Year Average)



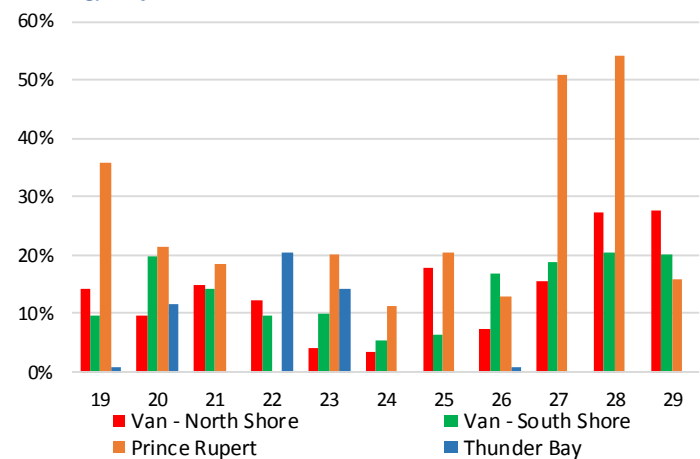
4-E Thunder Bay Unloads (# of Cars)  
(This Year vs. Last Year and the 5-Year Average)



4-D Prince Rupert Unloads (# of Cars)  
(This Year vs. Last Year and the 5-Year Average)



4-F Weekly Out of Car Time (% of hours out of cars / total hours working) – by Port to Week 29



Out of car time is measured weekly and uses data from terminal elevators on the total number of hours the facilities are open & 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).

**4-G Monthly Unloads (Cars) – This year vs. Last Year and the 5-Year Average to Week 27**

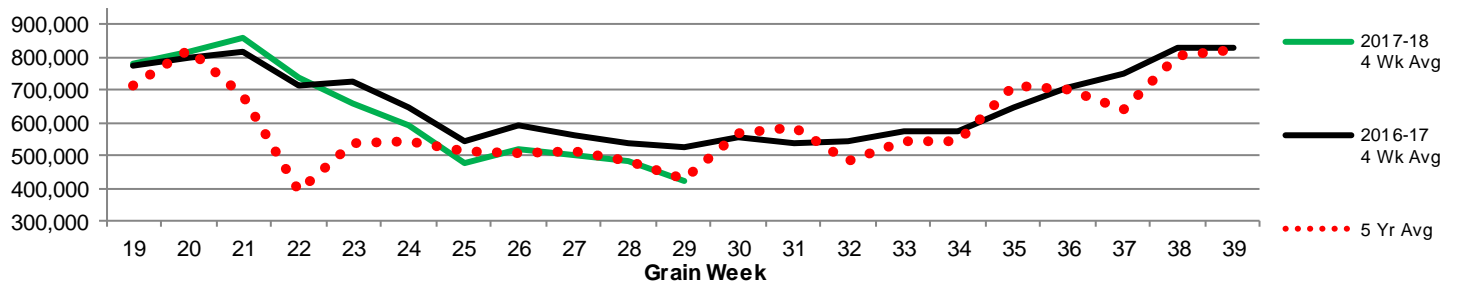
Months	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Weeks	1-5	6-9	10-13	14-18	19-22	23-27	28-31	32-35	36-39	40-44	45-48	49-52
2017-18	30,257	34,787	35,650	40,849	29,067	30,431	-	-	-	-	-	-
2016-17	31,197	33,447	36,002	44,476	28,797	28,771	26,824	37,057	36,789	39,112	29,666	27,065
5 Yr Avg	33,626	33,193	34,523	41,645	26,367	30,015	22,985	32,448	31,653	36,037	26,863	25,033
Var % to Last Year	-3%	4%	-1%	-8%	1%	6%						
Var % to 5 Yr Avg	-10%	5%	3%	-2%	10%	1%						

**5. Shipments**

**5-A Shipments from Port Terminals (Tonnes) – This Year as of Week 29 and Variance to Last Year**

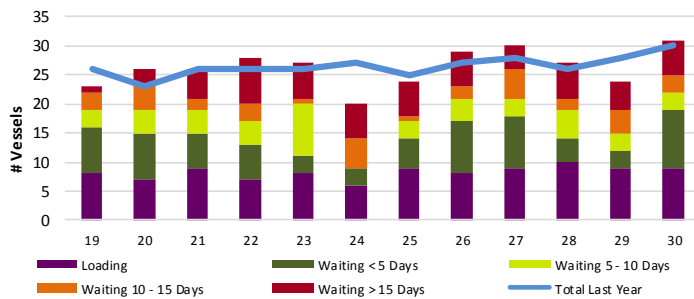
	Vancouver	Prince Rupert	West Coast	Thunder Bay	Churchill	Total
2017-18	12,032,554	2,753,021	14,785,575	4,029,072	-	18,814,647
2016-17	12,005,312	3,028,796	15,034,108	4,657,399	-	19,691,507
5 Year Avg	11,291,340	3,083,381	14,374,721	4,343,494	270,243	18,988,458
Var % to Last Year	0%	-9%	-2%	-13%	n/a	-4%
Var % to 5 Year Avg	7%	-11%	3%	-7%	-100%	-1%

**5-B Weekly Shipments (Tonnes) from Port Terminals - This year 4-Wk moving avg vs. last year 4-Wk moving avg and the 5-year avg**

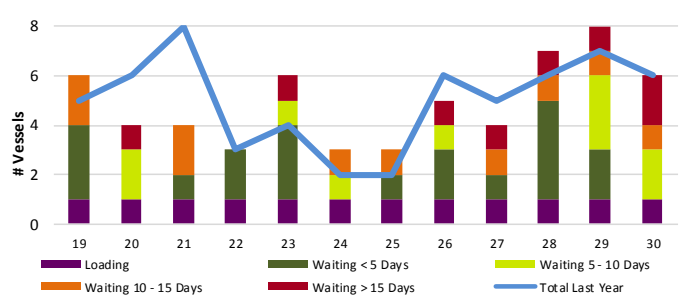


**6. Vessels**

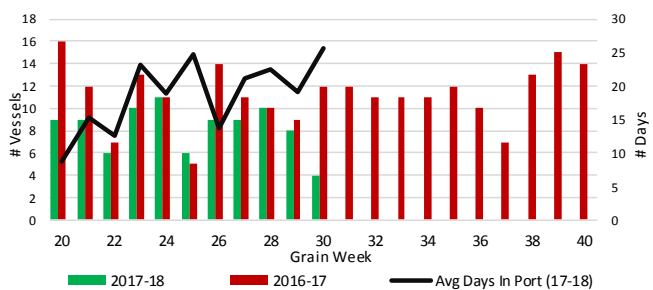
**6-A Vessel lineup at Vancouver as of Week 30 2017-18**



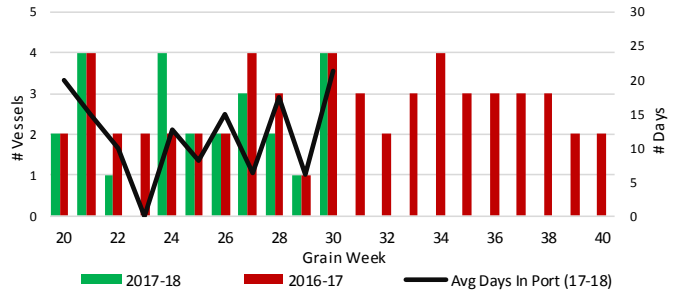
**6-C Vessel lineup at Prince Rupert as of Week 30 2017-18**



**6-B Vessels Cleared at Vancouver up to Week 30 2017-18**



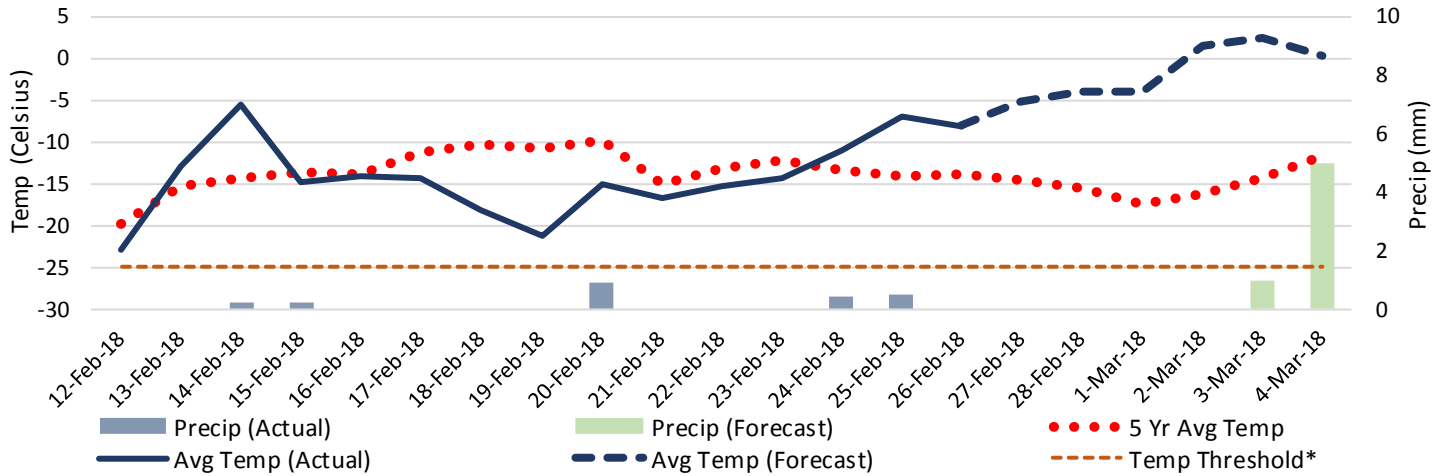
**6-D Vessels Cleared at Prince Rupert up to Week 30 2017-18**



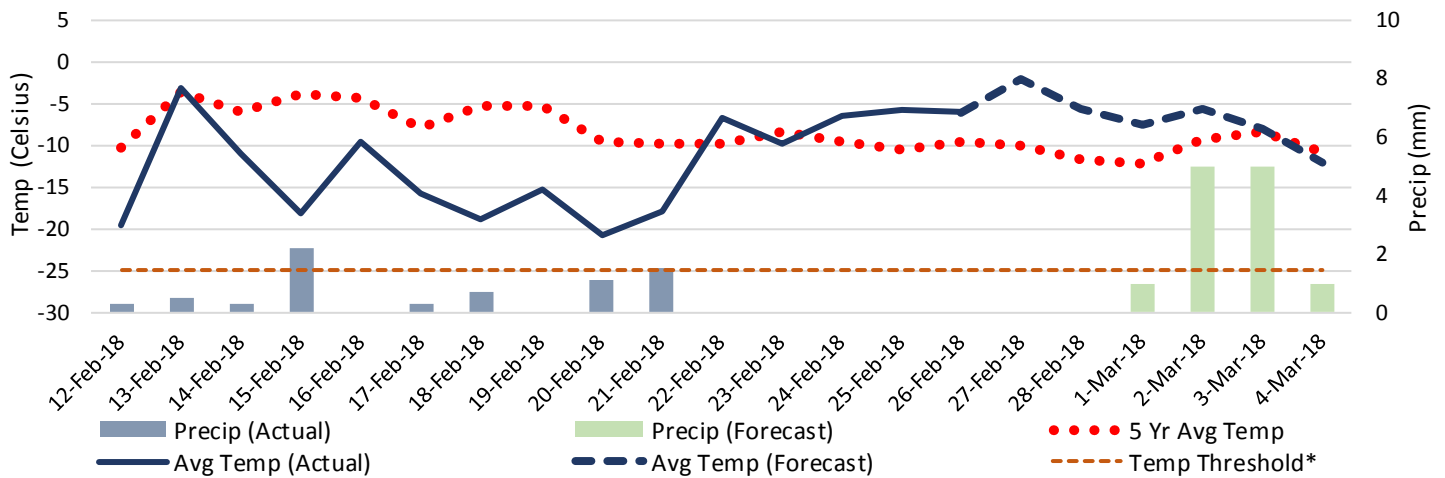
Note: To determine Avg Days in Port, Quorum first establishes which vessels cleared port in each specific grain week. Then, the number of days each cleared vessel spent in port is calculated by subtracting the date of arrival from the date of departure. Lastly, an average of these days is produced for the week, which yields Avg Days in Port. The measure uses vessel data provided by the BC Chamber of Shipping.

# 7. Weather

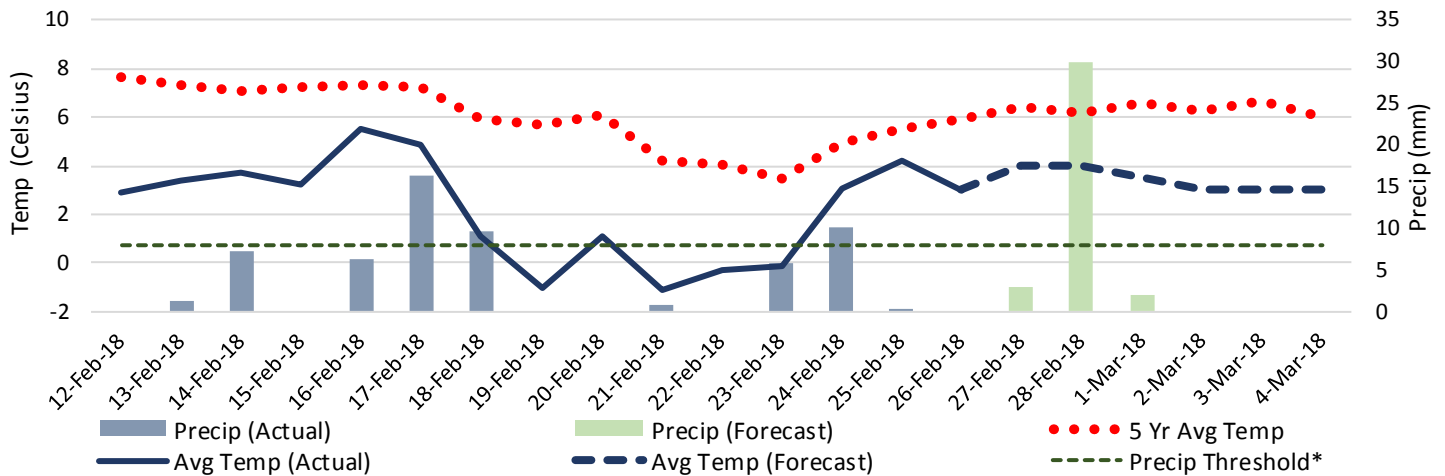
7-A Actual & Forecasted Weather at Winnipeg up to Week 31 2017-18



7-B Actual & Forecasted Weather at Edmonton up to Week 31 2017-18



7-C Actual & Forecasted Weather at Vancouver up to Week 31 2017-18



\*Note: Precipitation Threshold refers to 8mm of rain; this is a general guideline and is not meant to be a definitive limit. At this level of precipitation vessel loading may be delayed. The duration of the delay will be dependent on the ship design, the duration of rainfall, and the amount of precipitation. Temperature Threshold refers to -25°C. At this temperature an impact on railway operations is likely.

\*\*The Weather indicator has been included to denote any impact that weather may have on the Canadian grain supply chain. The three cities presented above are an indicator of the weather across the GHTS and are not meant to be exhaustive.

Source: Environment Canada, The Weather Network (Forecast)