

Grain Monitoring Program: The GHTS at a Glance



Key Measures for 1999-2015

Productions and Supply	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Change over last CY	5 Year Avg.	GMP Report Reference	Notes	
Western Canadian Crop Production (tonnes 000)	55,142	54,073	42,541	31,540	47,655	53,401	56,003	49,265	48,517	60,352	56,144	50,071	53,544	56,882	77,021	62,855	-18.4%	60,075	Measure 1A-1	While the 2014 crop did not match that of the previous year, it still ranks as the second largest in Western Canadian history - 3.2% more than the 5 year average - despite drought conditions in some areas of the prairies. When combined with the largest carry over seen in the GMP, the total grain supply for the year proved to be the second largest in Western Canadian history.	
Carry Forward Stocks (tonnes 000)	7,418	9,776	8,751	6,071	5,489	6,647	10,768	12,425	7,451	5,647	9,515	11,200	8,628	5,733	4,890	14,236	191.1%	8,937	Measure 1A-2		
Total Grain Supply (tonnes 000)	62,560	63,849	51,292	37,611	53,144	60,048	66,771	61,690	55,968	65,998	65,659	61,271	62,172	62,615	81,911	77,091	-5.9%	69,012	Calculated		
Traffic and Movement																					
Shipments from Primary Elevators (tonnes 000)	32,494	33,282	25,924	19,052	28,527	28,594	32,105	33,453	31,886	35,349	33,861	32,270	35,339	34,279	41,433	42,369	2.2%	37,138	Measure 2A-1	Matching the large supply of grain, the sizeable increase in movement out of primary elevators, railway traffic to ports and shipments from the terminal elevators was observed as record breaking volumes moved to port position.	
Railway Shipments to Western Ports (tonnes 000)	26,441	25,885	18,765	12,736	20,659	20,832	25,304	24,312	22,767	27,338	28,444	28,008	29,291	29,607	34,837	38,390	8.8%	32,027	Measure 2B-1		
Railway Shipments to Western Domestic Destinations (tonnes 000)																562	New Measure		Measure 2B-1		
Railway Shipments to Eastern Canada (tonnes 000)																3,016	New Measure		Measure 2B-8		
Railway Shipments to US Destinations (tonnes 000)																7,693	New Measure		Measure 2B-18		
Total Railway Movement (tonnes 000)																49,661	New Measure		Measure 2B-18	Measures introduced this crop year will allow for greater transparency in the movement of Western grains to all export markets	
Shipments by Truck to US and Mexican Destinations (tonnes 000)																52,875	New Measure		Measure 2D-1		
Total Grain Shipments to North American Destinations (tonnes 000)																52,875	New Measure		Calculated		
Western Canadian Port throughput (tonnes 000)	23,555	23,941	18,005	11,807	18,962	18,944	23,723	22,824	22,026	25,639	25,760	25,420	26,897	26,923	31,111	35,762	14.9%	29,024	Measure 2C-	Port shipments also saw a record volume this crop year as a result of the increased supply and efficient movement to port position	
Infrastructure (as of the end of the crop year)																					
Delivery Points in the Western GHTS	626	543	348	292	288	282	275	272	276	273	274	273	271	274	261	262	0.4%	268	Measure 3A-1	As noted in previous reports, the single largest change in the GHTS over the term of the GMP has been the reduction in grain elevators and delivery points. The last decade has seen a significant slow down in the closure of grain elevators. The 2014-15 crop year saw a reduction of only 1 elevator, bringing the total number of licensed elevators in Western Canada to 370. Following a trend that began 9 years ago, the total amount of storage capacity has grown, even as the number of facilities fall. This year saw an increase in licensed storage capacity of 4,500 tonnes.	
Elevators in the Western Canadian GHTS	917	781	500	416	404	395	374	371	378	367	366	366	386	391	371	370	-0.3%	377	Measure 3A-1		
Storage Capacity of Primary Elevators (tonnes 000)	7,444	7,137	6,125	5,747	5,689	5,846	5,871	5,808	5,953	6,060	6,343	6,369	6,740	6,852	7,330	7,335	0.1%	6,925	Measure 3A-1		
Route Miles of rail lines in the GHTS	19,390	19,021	18,924	18,924	18,823	18,764	18,595	18,495	17,978	17,905	17,905	17,830	17,830	17,600	17,600	17,424	-1.0%	17,657	Measure 3B-1	Line abandonments yielded a reduction of 176 miles in the railway network.	
Average Fleet Size (number of hopper cars)																22,997	New Measure		Measure 3B-1	This measures the total average weekly size of the railway hopper car fleet dedicated to the movement of Western grain.	
Western Canadian Terminal Elevators	15	16	17	17	16	16	16	16	15	15	15	15	16	15	15	17	13.3%	16	Measure 3C-1	Reflects the licensing of two elevators at Thunder Bay.	
Commercial Matters																					
Average Single Car Rail Freight Rates																					
CN - Vancouver	\$36.93	\$35.54	\$36.87	\$38.35	\$38.99	\$36.83	\$39.43	\$43.03	\$43.00	\$41.25	\$37.73	\$38.56	\$41.46	\$49.79	\$47.57	\$52.08	9.5%	\$45.89	Measure 4C-1		
CP - Vancouver	\$36.72	\$34.96	\$36.58	\$38.10	\$38.47	\$36.25	\$39.14	\$42.63	\$39.17	\$40.74	\$42.57	\$41.89	\$42.57	\$52.20	\$44.12	\$53.95	22.3%	\$46.95	Measure 4C-1	It should be noted that the GMP measures year over year changes using the rail freight rates that are in place at the end of the crop year. A 5% increase in the CTA's VRCP led to corresponding rate adjustments in all corridors. A combination of the railways' desire to direct freight to specific corridors along with seasonal adjustments shape their pricing decisions that determine their compliance with the Maximum Revenue Entitlement (MRE).	
CN - Prince Rupert	\$41.82	\$38.03	\$39.37	\$40.86	\$41.49	\$36.86	\$39.46	\$42.39	\$39.12	\$38.23	\$37.19	\$37.29	\$40.86	\$49.80	\$47.58	\$52.09	9.5%	\$45.52	Measure 4C-1		
CN - Thunder Bay	\$32.36	\$30.84	\$31.90	\$33.16	\$33.91	\$32.36	\$34.76	\$38.91	\$46.06	\$37.21	\$41.07	\$39.01	\$43.66	\$45.51	\$46.80	\$48.74	4.1%	\$44.74	Measure 4C-1		
CP - Thunder Bay	\$30.76	\$30.79	\$30.11	\$31.23	\$31.53	\$29.42	\$31.83	\$35.09	\$35.32	\$34.25	\$35.19	\$35.03	\$36.89	\$42.78	\$35.70	\$45.05	26.2%	\$39.09	Measure 4C-1		
Total Maximum Revenue Entitlement Differential (\$ Millions)	-	\$5.8	\$22.2	\$23.9	\$0.9	\$0.7	(\$3.4)	(\$1.3)	(\$57.9)	\$0.5	\$5.4	(\$0.3)	(\$0.6)	\$6.2	(\$3.3)	(\$9.0)	173%	(\$1.4)	Measure 4C-3	For the 2014-15 crop year, the MRE for CN and CP were set at \$738.2 million and \$721.9 million respectively, or \$1,460.1 million on a combined basis. The Canadian Transportation Agency determined that the statutory revenues derived from the movement of regulated grain by CN and CP amounted to \$745.1 million and \$724.0 million respectively, or \$1,469.1 million on a combined basis. These determinations resulted in overages of \$6.9 million in the case of CN and \$2.1 million for CP.	
Grain Company Elevation Charges - Index (Aug 1, 1999=100)	100	107.2	108.4	109.4	110.4	112.3	112.3	114.5	118.2	121.3	123.3	122.8	122.9	123.5	131.2	135.3	3.1%	n/a	Measure 4B-1 for Elevation	Posted tariffs for country elevation exhibited a moderate increase over the previous year.	
System Efficiency and Performance																					
Time Grain Spends in the GHTS (days)	68.1	63.1	65.6	77.5	60.4	56.4	54.7	56.6	58.4	49.9	52.2	60.4	52.3	47.1	46.2	41.1	42.0	2.2%	45.7	Measure 5E-1	The GMP measures the average time taken by grain to move through the GHTS from producer delivery at the country elevator to vessel loading at port. The 2014-15 crop year realized a slight increase due to an increase in time spent at port.
Country Elevator Annual *Turns*	4.8	5.0	4.5	3.7	5.6	5.6	6.2	6.5	6.0	6.6	6.2	5.7	6.0	5.8	6.8	6.6		-2.9%	6.2	Measure 5A-1	The number of "turns" made by an elevator refers to the number of times its capacity has been fully utilized (total throughput volume divided by total storage capacity). Although these values are largely influenced by the total throughput volumes, the number of turns are also impacted by changes in the network's total storage capacity. The results for port terminals was a record under the GMP
Terminal Elevator Annual *Turns*	9.1	8.9	6.6	5.0	7.0	7.5	8.7	8.3	8.5	10.0	10.0	9.9	11.1	11.1	13.5	17.1		26.7%	12.5	Measure 5C-1	
Average Railway Car Cycles: Total (days)																					
Total Avg CV	0.429	0.376	0.325	0.314	0.342	0.355	0.351	0.332	0.329	0.327	0.308	0.323	0.309	0.309	0.304	0.341		5.6%	13.8	Measure 5B-1	A railway car cycle is defined as the time a rail car takes to travel from its loading point, through to its destination and back for its next load. Throughout the GMP, car cycles have exhibited a high degree of seasonal variability. However, the longer term trend shows general improvement. While this years overall cycle showed a slight increase, the change is not considered to be significant in light of the large volumes that were moved. The result was largely driven by an increase in the Vancouver cycle, with both Prince Rupert and Thunder Bay corridors continuing a 5 year trend of improvement.
to Vancouver (days)	19.6	16.8	17.8	23.0	17.8	19.2	18.3	18.6	17.0	14.1	14.0	15.2	14.3	14.6	13.4	14.6		8.8%	14.4	Measure 5B-1	
to Prince Rupert (days)	26.1	26.2	21.9	22.5	13.9	18.4	15.6	15.9	14.3	11.8	12.0	12.5	12.2	13.3	12.5	12.4		-1.2%	12.6	Measure 5B-1	
to Thunder Bay (days)	20.5	15.7	16.3	18.2	17.0	18.2	17.2	15.6	15.4	13.7	12.8	13.9	14.5	13.6	12.7	12.6		-0.3%	13.5	Measure 5B-1	
Average Railway Loaded Transit (days)																					
Total Avg CV	7.8	7.3	7.0	7.9	7.0	7.0	6.7	6.7	6.3	5.5	5.5	6.0	5.6	5.4	5.3	5.8		9.4%	5.6	Measure 5B-4	The loaded transit time focuses on the amount of time taken in moving grain from a country elevator to a port terminal for unloading. One of the most common concerns voiced by grain shippers relates to the consistency of the service they receive from the railways. Specifically, they find it difficult to develop logistics plans when actual transit times can vary widely from the average.
to Vancouver (days)	8.2	7.4	7.1	8.2	7.1	6.8	7.1	7.0	6.5	5.7	5.8	6.4	5.7	5.6	5.5	6.0		9.1%	5.8	Measure 5B-4	
Vancouver CV	0.548	0.487	0.415	0.393	0.439	0.438	0.453	0.484	0.405	0.418	0.419	0.433	0.414	0.417	0.357	0.415		16.2%	0.407	Measure 5B-4	Average railway loaded transit time has shown continued improvement over the course of the GMP. However, while the variability of transit, as measured by the coefficient of variation has leveled in the past 4-5 years, it showed a marked increase this crop year of 12.2%. While the longer term trend indicates an improvement in the time cars are in transit, these values still show a high degree of variability and would suggest that little additional gain is forthcoming.
Prince Rupert CV	0.708	0.349	0.236	0.399	0.388	0.358	0.399	0.422	0.391	0.351	0.317	0.340	0.310	0.364	0.381	0.379		-0.5%	0.355	Measure 5B-4	
to Thunder Bay (days)	6.9	7.1	6.9	7.0	7.4	7.1	6.5	6.1	6.1	5.4	4.9	5.2	5.1	4.7	4.7	5.4		14.9%	5.0	Measure 5B-4	
Thunder Bay CV	0.482	0.416	0.400	0.418	0.438	0.447	0.453	0.435	0.429	0.408	0.441	0.389	0.366	0.419	0.449	0.444		-1.1%	0.413	Measure 5B-4	
Average railway multiple car incentives (\$ tonne)	\$2.41	\$3.48	\$4.07	\$3.97	\$4.54	\$4.52	\$4.81	\$5.41	\$5.51	\$6.25	\$6.65	\$6.74	\$6.80	\$7.09	\$7.39	\$7.47		1.1%	\$7.10	Measure 5B-14	The annual value of the discounts earned by grain shippers has continued to climb since the beginning of the GMP, now averaging \$7.47 per tonne with a continued increase in the percentage of traffic moving in car blocks of over 50 cars, from 80.3% to 83.0%.
% of total traffic incentive was paid on	50.4%	68.0%	76.8%	75.7%	75.1%	73.6%	75.5%	75.2%	76.6%	78.8%	79.3%	79.7%	80.7%	77.2%	80.3%	83.0%		3.4%	80.2%	Measure 5B-5	
Average Vessel time in port (days)	4.3	5.9	4.9	4.3	4.0	4.9	4.8	5.3	5.0	4.6	6.2	9.9	6.6	9.7	12.5	10.2		-18.4%	9.8	Measure 5D-1	Challenges in the movement of grain from country to port position meant that the right grain was not always in position at port for vessel loading. This resulted in longer than normal vessel waiting times and higher levels of ocean vessel demurrage. The 2014-15 crop year saw a decrease from the previous year although it remains higher than the 5 year average, and significantly higher than that seen in the first 10 years of the GMP.
Terminal Shift Utilization Performance (Out of Car Time)																		New Measure	Measure 5C-2	This measures the time port terminals are without cars to unload as a percentage of the total time they are open.	
Producer Impacts																					
Average Weighted Applicable Freight for 1 CWRS Wheat (\$ per tonne)	\$31.87	\$30.93	\$32.31	\$34.73	\$33.32	\$33.74	\$34.80	\$37.18	\$37.57	\$37.83	\$35.49	\$35.41	\$35.35	n/a	n/a	n/a		n/a	n/a	Measure 6A-10A	Changes in the Canadian Wheat Board's marketing mandate resulted in changes to the reporting of producer related measures. Individual component costs are no longer used in preparing producers' cash tickets. The basis now takes account of all cost components as well as marketers' risk and reward premiums.
Average Trucking Premium for 1 CWRS Wheat (\$ per tonne)	\$2.32	\$3.01	\$3.62	\$3.96	\$4.25	\$3.68	\$4.56	\$5.15	\$5.55	\$6.17	\$6.78	\$6.57	\$8.17	n/a	n/a	n/a		n/a	n/a	Measure 6A-10A	
Avg. Total Logistics Costs (Export Basis) for 1 CWRS Wheat (\$ per tonne)	\$54.58	\$52.92	\$50.88	\$57.15	\$55.51	\$57.77	\$61.81	\$63.20	\$67.65	\$66.74	\$65.86	\$73.35	\$74.75	n/a	n/a	n/a		n/a	n/a	Calculated	
Logistics Costs as a % of the Final Realized Price	28%	26%	23%	23%	26%	28%	32%	30%	18%	21%	28%	21%	23%	n/a	n/a	n/a		n/a	n/a	Calculated	
Final Realized Price for 1 CWRS (based on 13.5% protein) (\$/ tonne)	\$192.43	\$202.58	\$217.02	\$250.20	\$211.14	\$205.10	\$195.14	\$212.89	\$372.06	\$311.36	\$236.80	\$344.96	\$326.04	\$328.26	\$327.12	\$323.38		-1.1%	\$329.95	Measure 6A-10A	Although increased production levels in Canada and other competing countries exerted downward pressure on wheat prices, they continue to be high by historical standards.
Volume-related Composite Price Index		100.0	103.5	104.4	102.0	101.1	105.5	112.5	106.4	114.9	106.4	113.8	117.8	129.2	126.9	133.2		5.0%	n/a	CTA	A 3% correction for the under estimation of the previous years rise in fuel costs accounted for much of the current increase in railway inputs.
Industrial Product Price Index	100.0	100.8	100.7	99.1	104.6	104.4	109.3	109.1	117.4	108.9	110.1	119.1	119.4	120.6	124.0	124.2		0.2%	n/a	Statistics Canada	The modes increase in IPPI this year is also reflected in other cost indices such as the CPI and the CTA's VRCP used in the Maximum Revenue Entitlement calculation.
Western Canada Crop Production Farm Input Price Index	-																				



About the Grain Monitoring Program

On May 10, 2000 the Government of Canada introduced Bill C-34, which prescribed a number of changes to the handling and transportation of prairie grain. In conjunction with its enactment on August 1, 2000 the government also announced that they would appoint an independent third party to monitor the overall efficiency of the prairie grain handling and transportation system, including the impact of changes on producers, the Canadian Wheat Board, railways, grain companies, and ports.

On June 19, 2001 the Federal Government announced that Quorum Corporation had been selected as the monitor for the prairie grain handling and transportation system.

Under its mandate, Quorum Corporation provides the government and industry with a series of reports that track overall changes in the structure of the Grain Handling and Transportation System (GHTS), commercial relations, the efficiency and reliability of the system, and producer impacts.

To ensure that as broad a view as possible is taken in measuring the efficiency of the GHTS, Quorum Corporation consults extensively with the key stakeholders. The statistics contained in this summary represent only a few of the over 4,900 discreet measurement elements in 167 tables for each quarter of the sixteen years covered by the monitoring program. In the most recent crop year, the GMP shifted to monthly reporting. The majority of measures are now calculated on a monthly basis, supplemented quarterly and annually. Six new areas of measurement are included.

The reports prepared by the Grain Monitor provide an objective assessment of the grain handling and transportation system in Western Canada. Quorum welcomes feedback on our reports, the program and industry issues. We encourage all stakeholders to provide their input and feedback by contacting the Grain Monitoring team at the location shown below.

[About Quorum Corporation](#)

Quorum Corporation is an independent subsidiary of the Quorum Group of Companies, with sole responsibility for the monitoring of Canada's Prairie Grain Handling and Transportation System.

More information can be found at our website below.

Quorum Corporation
Suite 701, 9707 - 110 Street
Edmonton, AB T5K 2L9
PH: (780) 447-2111
FX: (780) 451-8710
EMAIL: info@quorumcorp.net
WEB: www.grainmonitor.ca

GHTS at a Glance

1999-2000 to 2014-2015 Crop Years



Monitoring the Canadian Grain Handling and Transportation System

Quorum Corporation has served as the federal government's Monitor of the Canadian Grain Handling and Transportation System (GHTS) since 2001. In these fifteen years the Grain Monitoring Program has produced over 70 reports under the government's GMP mandate. The ***GHTS at a Glance*** is produced as a supplement to the Annual Report and is intended to provide a summary of the GHTS's activities over the term of the program, including selected measures in each of the six areas of examination: Production and Supply; Traffic and Movement; Infrastructure; Commercial Relations; System Efficiency and Performance; and Producer Impact.

The Monitor has now adopted the internet as the sole medium through which its reports and data tables are transmitted to the stakeholder community. PDF and MS Excel spreadsheet copies of the reports and data tables can be downloaded from the Monitor's website: www.grainmonitor.ca.

Questions on data or the measures within the GMP are welcomed and encouraged.