Grain Monitoring Program: The GHTS at a Glance

Key Measures for 1999-2016

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	2015-16	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	**64,739**	**3.0%**	**63,008**	Measure 1A-1	The 2015 crop maintained a trend that began in 2013 with total supply exceeding 70 MMT and production volumes the second highest in Western Canadian history. While supply did not match that of the previous year, it still ranks as the third largest in Western Canadian history. Timely rainfall in August greatly improved the prospects for the crop which was further supported by generally favourable harvest conditions.
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	14,196	**9,163**	**-35.5%**	**8,522**	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	77,051	**73,901**	**-4.1%**	**71,530**	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	**42,381**	**0.0%**	**39,160**	Measure 2A-1	Steady shipments from primary elevators met with good railway traffic to ports and strong outward shipments from the terminal elevators throughout the crop year.
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	**37,957**	**-1.1%**	**34,016**	Measure 2B-1	
Railway Shipments to Western Domestic Destinations (tonnes 000)																562	**540**	**-3.9%**	**New Measure**	Measure 2B-1	These measures were introduced last crop year with the intension of allowing for greater transparency in the movement of Western grains to all export markets. Traffic volumes to all regions decreased over the previous year which was reflective of the overall decrease in supply. Of particular note was a significant decrease in the amount of grain trucked to the US.
Railway Shipments to Eastern Canada (tonnes 000)																3,016	**2,797**	**-7.3%**	**New Measure**	Measure 2B-8	
Railway Shipments to US & Mexico (tonnes 000)																7,693	**7,024**	**-8.7%**	**New Measure**	Measure 2B-15	
Total Railway Movement (tonnes 000)																49,661	**48,318**	**-2.7%**	**New Measure**	Measure 2B-15	
Shipments by Truck to US Destinations (tonnes 000)																3,248	**2,287**	**-29.6%**	**New Measure**	Measure 2D-1	
Total Grain Shipments to North American Destinations (tonnes 000)																52,908	**50,605**	**-4.4%**	**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	25,428	26,897	26,923	31,111	35,762	**35,588**	**-0.5%**	**29,224**	Measure 2C-1	Relatively smooth, efficient movement to ports ensured supplies to meet aggressive sales programs throughout the crop year.
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	**271**	**3.4%**	**268**	Measure 3A-1	The last decade has seen a significant slow down in the closure of grain elevators. The 2015-16 crop year saw a slight increase due mainly to a regulatory change requiring process elevators to acquire CGC licenses. Following a trend that began 10 years ago, the total amount of storage capacity has continued to grow, this year seeing an increase in licensed storage capacity of 510,000 tonnes.
Elevators in the Western Canadian GHTS	917	781	500	416	404	385	374	371	378	367	366	366	386	391	371	370	**383**	**3.5%**	**380**	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	**7,845**	**7.0%**	**7,220**	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	**17,288**	**-0.8%**	**17,549**	Measure 3B-1	Line abandonments yielded a reduction of 136 miles in the railway network.
Average Fleet Size (number of hopper cars)																22,997	**23,833**	**3.6%**	**New Measure**	Measure 3B-2	A measures of the 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	**15**	**-11.8%**	**16**	Measure 3C-1	Reflects the delicensing 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	**$48.79**	**-6.3%**	**$47.94**	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 4.9% decrease in the CTA's VRCPI led to corresponding rate adjustments in all corridors. The railways' desire to direct freight to specific corridors coupled with periodic adjustments ultimately shape their pricing decisions, which in turn determines their compliance with the Maximum Revenue Entitlement (MRE).
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	**$50.30**	**-6.8%**	**$48.63**	Measure 4C-1	
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	**$49.19**	**-5.6%**	**$47.90**	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	**$48.21**	**-1.1%**	**$46.58**	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	**$43.35**	**-3.8%**	**$40.75**	Measure 4C-1	
Total Maximum Revenue Entitlement Differential ($ 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)	**($4.4)**	**-51%**	**($2.2)**	Measure 4C-3	For the 2015-16 crop year, the MRE for CN and CP were set at $684.7 million and $677.9 million respectively, or $1,362.6 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 $685.8 million and $681.3 million respectively, or $1,367.1 million on a combined basis. These determinations resulted in overages of $1.0 million for CN and $3.4 million for CP.
Grain Company Primary 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	**133.1**	**-1.6%**	**129.2**	Measure 4B-1 for Elevation	Posted tariffs for country elevation remained relatively constant with that observed 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	52.3	47.1	46.2	41.1	42.0	**41.8**	**-0.4%**	**43.6**	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 2015-16 crop year realized a slight decrease which reflected a full-day reduction in railway transit time offset by increases in country and terminal storage times of 0.6 days and 0.2 days respectively.
Average Country Elevator Capacity Turnover Ratio	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	**6.3**	**-4.5%**	**6.3**	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. Overall port terminal capacity turnover performance reflects a record under the GMP.
Average Terminal Elevator Capacity Turnover Ratio	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	**18.4**	**7.6%**	**14.2**	Measure 5C-1	
Average Railway Car Cycles: Total (days)	**19.9**	**16.4**	**17.1**	**20.4**	**16.7**	**18.7**	**17.3**	**16.8**	**15.9**	**13.4**	**13.2**	**14.3**	**13.9**	**14.0**	**13.0**	**13.7**	**13.3**	**-3.5%**	**13.6**	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. With the exception of Thunder Bay, this year's cycles showed decreases reflective of the general trend. While the Thunder Bay cycle time did increase, it is not indicative of a reversal in the general trend.
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	**13.5**	**-7.2%**	**14.1**	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	**12.2**	**-1.3%**	**12.5**	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	**13.4**	**6.2%**	**13.4**	Measure 5B-1	
Average Railway Loaded Transit (days)	**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**	**4.8**	**-16.1%**	**5.4**	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.
Total Avg CV	*0.429*	*0.376*	*0.325*	*0.314*	*0.342*	*0.355*	*0.351*	*0.352*	*0.329*	*0.327*	*0.308*	*0.323*	*0.309*	*0.309*	*0.304*	*0.341*	***0.316***	***-7.5%***	***0.316***	Measure 5B-4	
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	**4.9**	**-18.9%**	**5.5**	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*	***0.387***	***-6.8%***	***0.398***	Measure 5B-4	
to Prince Rupert (days)	10.0	7.0	7.8	9.9	6.2	7.1	6.4	6.8	6.2	5.1	5.2	5.9	5.9	5.9	5.6	5.4	**4.5**	**-16.9%**	**5.5**	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 generally leveled in the past 5 years, it showed a marked decrease of 16.1% in the 2015-16 crop year. While the longer term trend indicates a reduction in the amount of time cars spend in transit, these averages still show a high degree of variability and suggest that little gain in consistency has been 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*	***0.363***	***-4.3%***	***0.359***	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	**5.0**	**-6.5%**	**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*	***0.448***	***0.8%***	***0.425***	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	**$7.49**	**0.3%**	**$7.25**	Measure 5B-14	The value of the freight discounts earned by grain shippers has climbed steadily since the beginning of the GMP, now averaging $7.49 per tonne. Much of this gain has come from an increase in the proportion of traffic moving in blocks of 50 or more cars, which reached a record 85.7% in the 2015-16 crop year.
% of total traffic incentive was paid on	50.4%	68.0%	76.8%	75.7%	75.1%	73.6%	75.5%	75.2%	76.6%	78.8%	79.3%	79.7%	80.6%	77.2%	80.3%	84.2%	**85.7%**	**1.8%**	**81.6%**	Measure 5B-13	
Average Vessel time in port (days)	4.3	5.9	4.9	4.3	4.0	4.9	4.8	5.3	5.0	4.6	6.2	9.9	6.6	9.7	12.5	10.2	**7.9**	**-22.5%**	**9.4**	Measure 5D-1	The 2015-16 crop year saw a return to moderate wait times for vessels in port, a significant improvement over the previous three years.
Terminal Shift Utilization Performance (Out of Car Time)																0.2	**11.7%**	**-31.6%**	**New Measure**	Measure 5C-5	This measures the time port terminals are without cars to unload as a percentage of the total time they are open and operating.
Producer Impacts																					
Final Realized Price for 1 CWRS (based on 13.5% protein) ($/ 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	**$296.49**	**-8.3%**	**320.3**	Measure 6A-10A	Despite downward pressure on wheat prices due to increased production levels in Canada and other competing countries, 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	**126.7**	**-4.9%**	**n/a**	CTA	
Industrial Product Price Index	100.0	100.8	101.3	99.7	105.0	104.9	108.7	108.0	117.7	109.6	110.6	120.1	119.5	121.1	124.4	123.8	**122.4**	**-1.1%**	**n/a**	Statistics Canada	The modest decrease in IPPI this year is also reflected in other cost indices such as the CPI and the CTA's VRCPI used in the Maximum Revenue Entitlement calculation.
Western Canada Crop Production Farm Input Price Index	-	-	100.0	110.0	120.6	125.9	119.9	137.8	186.7	147.7	153.5	159.4	177.9	169.8	182.0	176.2	**170.1**	**-3.5%**	**n/a**		The Farm Input Price Index base year is 2002 (=100). Although the index declined slightly from last year, it exhibits longer term increases in most producer related costs that exceed those experienced in the handling and transportation of grain.

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 173 tables for each quarter of the sixteen years covered by the monitoring program. In the 2014-15 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 were also introduced in the 2014-15 crop year.

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.

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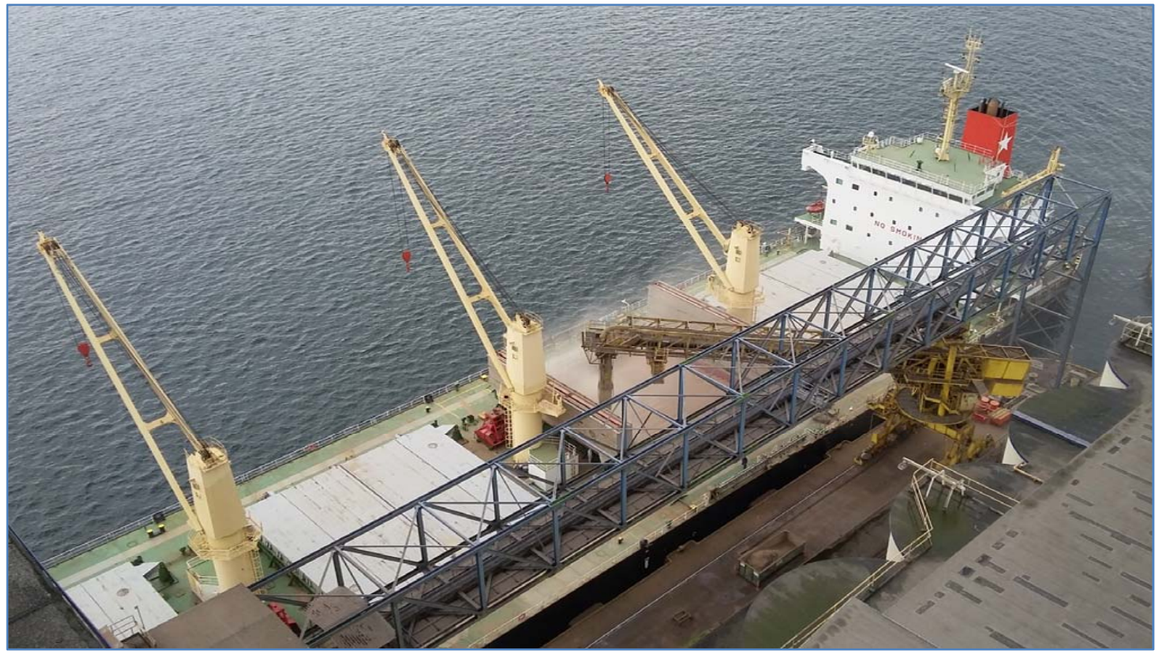
GHTS at a Glance

1999-2000 to 2015-2016 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 sixteen years the Grain Monitoring Program has produced over 270 Weekly, Monthly, Quarterly and Annual 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.

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