Monitoring the Canadian Grain Handling and Transportation System

First Quarter
2009-2010 Crop Year

1 Summary Report

Government of Canada Gouvernement du Canada

Quorum Corporation

Foreword

In keeping with the federal government's Grain Monitoring Program (GMP), the ensuing report focuses on the performance of the Canadian Grain Handling and Transportation System (GHTS) for the three-month period ended 31 October 2009. In addition to providing a current accounting of the indicators maintained under the GMP, it also outlines the trends and issues manifest in the movement of western Canadian grain during the first quarter of the 2009-10 crop year.

As with previous quarterly and annual reports, the report is structured around a number of performance indicators established under the GMP, and grouped under five broad series, namely:

Series 1 – Industry Overview
Series 2 – Commercial Relations
Series 3 – System Efficiency
Series 4 – Service Reliability
Series 5 – Producer Impact

Although the indicators that follow largely compare the GHTS's current-year performance with that of the preceding 2008-09 crop year, they are also intended to form part of a time series that extends forward from the 1999-2000 crop year. As such, comparisons to earlier crop years are also made whenever a broader contextual framework is deemed appropriate.

The accompanying report, as well as the data tables which support it, can both be downloaded from the Monitor's website (www.quorumcorp.net).

QUORUM CORPORATION
Edmonton, Alberta

Table of Contents

Findings

From its outset, the 2009-10 crop year looked as though it would be a difficult one. Beginning with a dry spring, the abnormally cooler temperatures that followed led to widespread concerns over the size and quality of the crops that would be harvested in the fall. But an unusually warm September shielded the late plant development from the potential effects of a killing frost, and largely preserved both the quantity and quality of the grain that was harvested. Despite this, an excess of supply in most grain markets, coupled with the reverberations of the financial crisis that were still being felt around the world, brought further downward pressure on international grain prices. Although relatively strong by historic standards, the prices realized by Canadian grain producers at large moved substantially lower in the 2009-10 crop year.

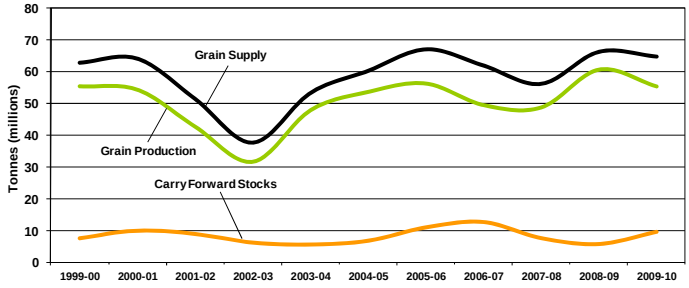
1.0 Industry Overview

1.1 Grain Production and Supply

Overall grain production for the 2009-10 crop year fell to 55.1 million tonnes, a decrease of 8.7% from the previous crop year's record-setting 60.4 million tonnes. Despite the reduction in output, the crop ranked as the fourth largest in the last eleven years, and well above the 50-million-tonne norm. The production of all major crops, save that of flaxseed, fell in comparison to the tonnage harvested a year earlier. The largest decline in output was a 2.3-million-tonne reduction in the size of the barley crop, which fell by 20.4% to a three-year low of 8.9 million tonnes. This was compounded by a 1.5-million-tonne reduction in oats (down 37.7%); a 1.1-million-tonne decrease in wheat (down 5.3%); and a 0.8-million-tonne drop for canola (down 6.4%). Running counter to this general pattern were special crops, which saw production increase by 7.7%, and reached a GMP record of 5.6 million tonnes.

Production for all provinces but British Columbia decreased with the most significant decline being seen in Alberta.[1] Owing to comparatively poorer growing conditions, the province's total production fell by 21.6%, to 15.7 million tonnes from 20.0 million tonnes a year earlier. This decrease accounted for over 80% of the net decline in prairie production, followed by Manitoba and Saskatchewan, where output fell by 0.6 million tonnes (down 5.4%) and 0.4 million tonnes (down 1.3%) respectively.

Figure 1: Western Canadian Grain Supply



Notwithstanding the decline in production, the overall grain supply decreased by a more modest 2.3%, falling to 64.5 million tonnes from 66.0 million tonnes a year earlier. Much of the potential fall was cushioned by a 66.6% increase in the amount of stocks carried forward from the preceding crop year, which rose to 9.4 million tonnes from 5.6 million tonnes. Much of the impetus for this came as a result of mounting global grain supplies and softening commodity prices.

Despite the overall decrease in Canadian grain production, the GHTS's handlings in the first quarter of the 2009-10 crop year actually increased. Railway shipments for the period rose by 13.8%, climbing to 7.2 million tonnes from the 6.3 million tonnes handled in the same period a year earlier. Significant gains were noted for most commodities, with CWB grains up by a collective 23.7%, and non-CWB grains by a more modest 2.6%. Wheat and barley posted the largest gains among the CWB grains, with increases of 27.3% and 35.3% respectively. Durum shipments, while also up, increased by a more moderate 6.9%. Much of the increase among non-CWB grains was driven by the continuing strong export demand for canola, which resulted in the

[1] Grain production in British Columbia actually increased by 22.4%, climbing to 190,800 tonnes from 155,900 tonnes a year earlier.

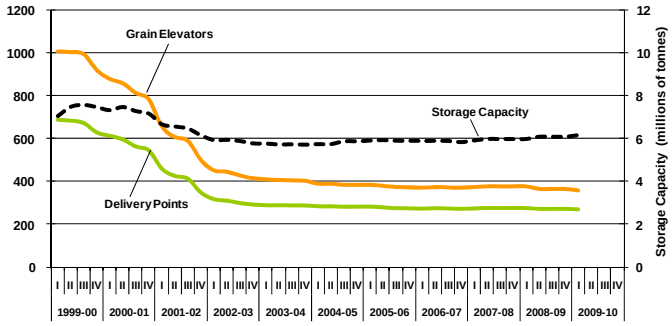
surpassing of the previous crop year's first-quarter record by another 7.2%, rising to 1.9 million tonnes.[2] Running counter to this were special crop shipments, which collectively declined by 11.4% to 0.7 million tonnes in comparison to 0.8 million tonnes a year earlier.

1.2 Country Elevator Infrastructure

As outlined in the Monitor's previous reports, although the country elevator network has continued to diminish in size, the pace of that reduction has abated significantly in recent years. The first quarter of the 2009-10 crop year saw another seven licensed elevators removed from this network. By the end of October 2009, the remaining network comprised a total of 359 facilities, representing a net decrease of 64.2% from the 1,004 elevators that were in place at the beginning of the GMP.

Reflecting the decline in elevator facilities has been a largely parallel reduction in active grain delivery points. As was the case with licensed elevators, there was a modest reduction in the number of these delivery points during the first quarter. With another two removed from the 272 points still actively gathering grain at the end of the 2008-09 crop year, the network was reduced to 270. This denoted just 39.4% of the 685 locations that were accepting grain at the beginning of the GMP. Although these sites are distributed generally throughout western Canada, the majority of grain deliveries have been concentrated at about one-third of them. In the 2008-09 crop year, the last for which data is available, 80% of the tonnage delivered into the system was gathered at just 89 locations.[3]

Figure 2: Grain Delivery Points, Licensed Elevators, and Licensed Elevator Storage Capacity



The reduction in elevator storage capacity has not been nearly as dramatic as either the decline in the number of elevators or grain delivery points. This facet of the country elevator system's transformation reflects the incremental gain made as a result of the industry's focused investment in high-throughput facilities. Despite a 64.2% reduction in total facilities, the elevator system's storage capacity has never declined by more than 19.0% from the 7.0 million tonnes gauged at the outset of the GMP. Moreover, since reaching a low of 5.7 million tonnes at the close of the 2003-04 crop year, this investment in high-throughput facilities had added back another 0.4 million tonnes of storage capacity into the system by the end of the 2008-09 crop year. This process continued into the first quarter of the 2009-10 crop year, with another 74,100 tonnes added to the system. By the close of the period, total storage capacity reached slightly above 6.1 million tonnes; a mere 12.7% below what it had been at the beginning of the GMP.

These broad trends provide a clear indication of the evolution that has been taking place within the industry since the beginning of the GMP. The elevator network now comprises far fewer facilities, many with significantly larger storage capacities and the ability to load railcars in trainload lots. It is worth noting that when the GMP began only 11.9% of the system's elevators were able to load 50 or more railcars at a time. However, this proportion has been steadily building as a result of elevator rationalization. With the close of the first quarter, high-throughput facilities accounted for more than half, 51.8%, of the GHTS's remaining licensed elevators.

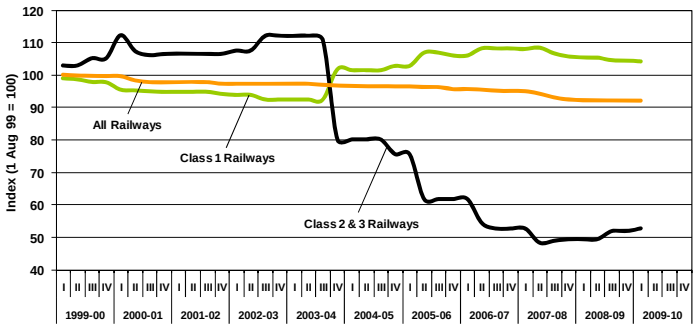
[2] Although demand from traditional customers such as Japan and Mexico softened slightly, it remained the growing Chinese demand for canola that has raised railway shipments to record levels. With 0.7 million tonnes of canola having been exported to China in the first quarter, China had become Canada's single largest canola customer.

[3] The most recent statistics available for grain deliveries by station are those from the 2008-09 crop year.

1.3 Railway Infrastructure

As previously reported, total railway infrastructure in western Canada has undergone a comparatively modest transformation since the beginning of the GMP. By the end of the 2008-09 crop year the railway network had been reduced by just 8.0%, to encompass a total of 17,904.7 route-miles of track. Although 87.2% of this 1,563.5-route-mile reduction was derived from the abandonment of grain-dependent branch lines, there were equally significant changes in the makeup of the system that remained. Much of this related to the fact that CN and CP had transferred a variety of uneconomic branch line operations to a host of new shortline railways; a process that began in the mid 1990s. Although this was but one element in a wider industry restructuring, it resulted in slightly more than one-quarter of the railway network being operated by smaller regional and shortline carriers.

Figure 3: Relative Change in Railway Infrastructure



The first significant change in this strategy came in 2004 when CN acquired the operations of what was then western Canada's only Class 2 carrier, BC Rail Ltd. Since then, the waning financial health of most shortline carriers has led many into either selling or rationalizing their own operations. This resulted in a number of shortline operations reverting back to the control of the Class 1 carrier that had spun them off in the first place. Perhaps the most striking of these reversals came in January 2006 when RailAmerica Inc. sold most of its holdings in western Canada back to CN.[4] The disappearance of these regional and shortline railways served to again realign the scope of Class 1 and non-Class 1 railway operations.

It must be noted that many of these shortline operations had been established with an eye towards preserving railway service on what the Class 1 carriers had come to regard as uneconomic branch lines. While many of these were dependent on the movement of grain, most shortline railways proved incapable of reshaping the economics that gave rise to the grain industry's broader elevator-rationalization programs. Although these smaller carriers could point to some success in attracting new business – much of which has been tied to increased producer-car loading – they could not prevent the grain companies from continuing to systematically close the smaller elevators they still served.

The effect of these shortline closures could be seen in the division of the railway network itself. Whereas, shortline railways had controlled 23.8% of the western Canadian system at the outset of the GMP, by the close of the 2008-09 crop year that share had fallen to a much lesser 13.7%. The infrastructure still being operated by these carriers had fallen by 48.0%, to 2,411.3 route-miles from 4,640.3 route-miles a decade earlier. Moreover, even with abandonments, the infrastructure under CN and CP control actually increased by 4.2% during this same period, climbing to 15,493.4 route-miles from 14,827.9 route-miles.

The 2009-10 crop year brought still more examples of the changing face of shortline operations in western Canada. After more than a decade of service, the Okanagan Valley Railway suspended operations altogether in September 2009.[5] But the failure of the OVR stood in contrast to the creation of yet another Saskatchewan-

[4] The sale encompassed 702.8 route-miles of railway infrastructure grouped under three separate operations: the Central Western Railway; the Lakeland and Waterways Railway; and the Mackenzie Northern Railway.

[5] The Okanagan Valley Railway operated over a 94-mile network situated in the British Columbia interior. Much of this was accessed through the exercising of trackage rights over infrastructure formerly owned by CN, and later transferred to the Kelowna Pacific Railway. But the company also leased a 46.3-mile section of connecting track from CP, which extended south from the CP

based shortline, the Last Mountain Railway, which began operating over an 84.5-mile stretch of former CN track extending southward from Davidson to Regina in October 2009.[6] Following the lead set down by the Great Western Railway several years before, the takeover was spearheaded by a consortium of local municipal and business interests led by Mobil Grain Ltd. In equal measure, the new railway was also able to secure a portion of its immediate capital needs from the provincial government, which extended the carrier a $1.6 million interest-free loan.

Even with a recent surge in new shortlines, the traffic collectively originated by these smaller carriers has remained on the decline.[7] Although total hopper car shipments in the first quarter increased by 14.3%, this gain was wholly attributable to the Class 1 carriers, which saw their originations increase by 14.8%. Running counter to this was the volume originated by the shortlines, which actually declined by 0.8%. These results were partially influenced by further reductions in the number of licensed elevators served by each group, with the major carriers losing five in the first quarter against one for the shortlines. What remains most telling is the relative magnitude of these changes: A 1.5% reduction in the case of the Class 1 carriers versus a 5.3% reduction among the Class 3 carriers. Moreover, the shortlines have posted the steepest net decrease in serviced elevators since the beginning of the GMP, with an overall reduction of 78.0% in comparison to 64.0% for CN and CP. More telling has been the comparative decline in the elevator storage capacities of these two networks, which has fallen by 76.2% in the case of the shortlines and by only 7.9% with respect to the Class 1 carriers.

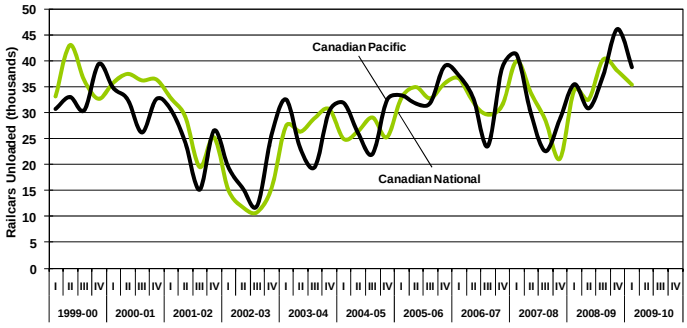
There were no track abandonments in the first quarter of the 2009-10 crop year.[8] As a result, the scope of the overall railway network in western Canada remained unchanged at 17,904.7 route-miles. Still, the transfers noted in the first quarter produced a 38.2-route-mile shift in the balance between the Class 1 and non-Class 1 carriers. By the end of the period, CN and CP operated over a marginally smaller 15,455.2 route-miles of track; an overall reduction of just 0.2%. In comparison, the shortline network grew by 1.6%, climbing to 2,449.5 route-miles of track.

1.4 Terminal Elevator Infrastructure

No changes to the licensed terminal elevator network in western Canada were recorded during the first three months of the 2009-10 crop year. At the close of the period, the network still comprised a total of 15 facilities with 2.5 million tonnes of associated storage capacity.

A total of 74,059 carloads of grain were unloaded at these facilities during the first quarter. This represented an increase of 6.3% from the 69,699 handled during the same period a year earlier. Having originated 52.3% of the cars that were unloaded during this period, CP again constituted the largest handler of export

Figure 4: Terminal Elevator Unloads – Railway Carrier



main line at Sicamous to Vernon. When the OVR ceased operating, this leased section reverted back to CP control. CP is reportedly now considering the abandonment of this line.

[6] The line embodies the southern section of CN's Craik subdivision. Under the terms of the agreement, the Last Mountain Railway purchased the 67.0-mile section between Davidson and Lumsden, and leased the remaining 17.5-mile section leading into Regina.

[7] Three new shortlines have been established since the beginning of the 2007-08 crop year: Torch River Rail; the Great Sandhills Railway; and the Boundary Trail Railway.

[8] Despite the fact that no track was abandoned during the first quarter of the 2009-10 crop year, the network plans of both CN and CP continued to show another 830 route-miles of Class 1 railway infrastructure being targeted for discontinuance over the next three years. About two-thirds of this was earmarked for discontinuance by CP.

grain in western Canada. This share was somewhat greater than the 50.8% secured by CP during the first quarter of the previous crop year.

Although the record remains somewhat mixed, CP has often outdistanced CN's quarterly handlings since the 2002-03 crop year. In large part, this can be explained by a distribution in crop production that has tended to benefit CP rather than CN. Still, CN's efforts to promote its Prince Rupert gateway appear to have done much to help compensate for this. Through reduced freight rates and a better allocation of cars to the corridor, CN appears to have narrowed the overall differential in market share substantially – even if the gain has come partially at the expense of the carrier's own handlings into Vancouver.[9]

[9] CN's handlings into Vancouver are substantially lower than they were in the first years of the GMP. In fact, CN's share in the traffic moving to Vancouver has declined from 46.5% in the 1999-2000 crop year to 35.9% in the first quarter of the 2009-10 crop year. Much of the volume that CN would have handled into Vancouver has now found its way to Prince Rupert.

2.0 Commercial Relations

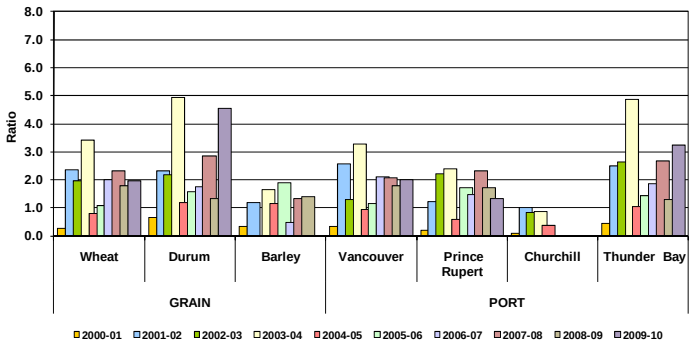
2.1 Tendering Program

The 2009-10 crop year denotes the tenth for the Canadian Wheat Board's tendering program. Initially established with a three-year life under a Memorandum of Understanding between the Minister Responsible for the Canadian Wheat Board and the CWB, the program has evolved significantly since the MOU expired at the end of the 2002-03 crop year. The most fundamental change involved the establishment of a protocol between the CWB and its agents that called for 40% of the CWB's overall grain movements to the four ports in western Canada to be accomplished through a combination of tendering and advance car awards. While shipments under these two programs always fell somewhat short of this target, the proportion moving under them has fallen noticeably. From the 2006-07 crop year's recent peak of 33.6%, the share accorded to these movements had fallen to a low of 26.5% by the close of the 2008-09 crop year. Much of this decline reflected the CWB's adoption of a less rigid target, and one that gave them a greater degree of flexibility in moving grain.

In the first quarter of the 2009-10 crop year the CWB issued a total of 61 tenders calling for the movement of 0.7 million tonnes of grain. This represented a 13.3% reduction from the 0.8 million tonnes put out for tender in the first quarter of the preceding crop year. As in most previous crop years, the most substantive portion of this tonnage, 71.4%, related to the movement of wheat.[10] Barley accounted for another 14.6%, with the residual 14.0% accruing to durum.

The majority of the tender calls issued in the first quarter, 45.1%, favoured the delivery of grain to Prince Rupert. But this denoted a sharp increase over the 36.0% share the port secured during the first quarter of the 2008-09 crop year. Thunder Bay followed with a 28.1% share, although down substantially from the 34.2% garnered a year earlier. For a second year in a row, Vancouver took a third place ranking, with its 26.8% share having even slipped slightly from the previous crop year's 29.8% share.[11] For a fifth consecutive year, no tenders calling for delivery of grain to Churchill were issued.

Figure 5: Tendered Volume – Ratio of Tonnage Bid to Tonnage Called



The calls issued by the CWB were met by 253 bids offering to move an aggregated 1.4 million tonnes of grain, twice the volume sought. Bidding proved somewhat more intensive than in the preceding crop year, driven by the activity surrounding durum. Using the ratio of tonnage-bid to tonnage-called to gauge the response rates of the grain companies, the bidding on durum tenders proved almost as intensive as in the 2003-04 crop year. The response rate rose by 245.4%, producing a ratio of 4.5 in comparison to 1.3 for the previous crop year as a whole. The increase in the response rate on wheat tenders proved significant less, with a gain of 10.0% raising the associated ratio to 2.0 from the 2008-09 crop year's 1.8 value. Only barley showed a marked decrease in bidding activity, with the ratio falling to zero from 1.4 in the absence of any bids whatsoever.

Some pronounced changes in the response rates for the port specified in the tender calls were also evident. In particular, the ratio associated with grain intended for delivery at Thunder Bay increased by 147.9%, to 3.2 in

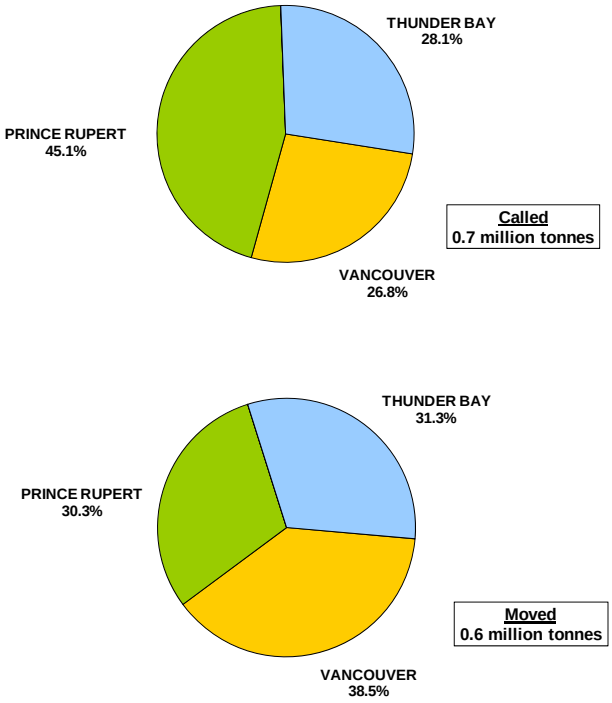
[10] This was not the case in the first quarter of the 2005-06 crop year when barley, owing to a sizable short-term movement, actually displaced wheat as the largest single grain put out for tender.

[11] Vancouver's share of the tonnage put out for tender has declined significantly since the 2004-05 crop year, when it was accorded a record 70.9% of the total.

the first quarter as compared to a ratio of 1.3 for the previous crop year as a whole. Vancouver's ratio saw a far more modest 11.9% gain, rising to 2.0 from the previous year's 1.8. Only Prince Rupert saw the ratio decrease, falling by 22.7% to 1.3 from 1.7 for the 2008-09 crop year as a whole.[12]

In large part, these better response rates reflected the competition that had been spurred as a result of a further reduction in the amount of grain put out for tender. This was particularly evident in the movement of durum to Thunder Bay. Owing to a surplus occasioned by the sizeable quantity of stocks carried forward from the previous crop year as well as a comparatively large harvest, the grain companies appeared desirous of clearing as much from their houses as possible. This was reflected in the more aggressive bids being put forward by the grain companies. Whereas the maximum discount on tendered durum shipments reached $14.95 per tonne in the 2008-09 crop year, the bids advanced in the first quarter increased by 41.3% to $21.13 per tonne.[13]

Figure 6: Tendered Grain – Cumulative Volumes to 31 October 2009



Aside from the heightened activity relating to durum, the discounts bid to secure wheat tenders proved only marginally lower than those advanced a year earlier, with the first quarter's maximum bid having fallen by 7.5% to $21.28 per tonne from the previous year's $23.01 per tonne high. Even so, there was evidence to the effect that the bidding on movements to Vancouver was more aggressive than on those to Prince Rupert.[14] It should be noted, however, that the differential in the discounts put forward by the grain companies on these movements widened somewhat in the first quarter. Whereas the difference between the maximum discounts advanced on wheat tenders to Vancouver and Prince Rupert in the 2008-09 crop year reached $5.66 per tonne, the discounts put forward in the first quarter of the 2009-10 crop year tended to favour Vancouver by a noticeably greater $6.53 per tonne.

During the first three months of the 2009-10 crop year, the CWB awarded a total of 97 contracts for the movement of an aggregated 0.6 million tonnes of grain.[15] This represented a gain of 5.3% over the tonnage contracted for in the same period a year earlier. Unlike the tonnage specified in the tender calls, the largest proportion of the grain contracted for movement, 38.5%, was destined to the port of Vancouver. Thunder Bay and Prince Rupert followed in turn with shares of 31.3% and 30.3% respectively.

[12] With no tender calls having been issued for Churchill, the ratio of tonnage-bid to tonnage-called remained at zero.

[13] The tender bids advanced by the grain companies are typically expressed as a discount to the CWB's Initial Payment.

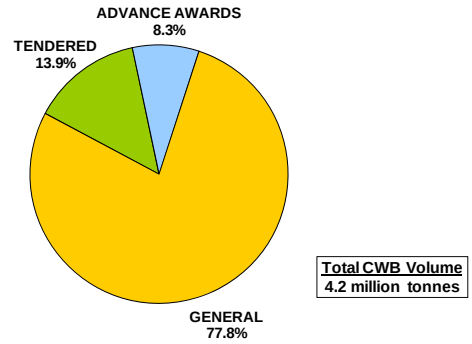
[14] Prince Rupert Grain's shareholders all have wholly-owned facilities in Vancouver. This provides them with a monetary incentive to direct grain through Vancouver, as they do not have to share terminal revenues to the same extent as they do on movements through Prince Rupert. Some shareholders are also concerned with the single-carrier service entailed in moving grain to Prince Rupert, preferring the availability of two carriers in the movement of grain to Vancouver.

[15] The volumes cited as moving under the CWB's tendering program also extend to tendered malting barley – which is administered independently of other tendered CWB grains.

As previously observed by the Monitor, the vast majority of the grain moved under the CWB's tendering program did so in blocks of 25 or more railcars. During the first quarter of the 2009-10 crop year, 91.9% of the tendered grain volume moved in such blocks. This proportion proved to be marginally above the 91.0% recorded for the 2008-09 crop year as a whole. There was also an increase in the proportion moving in blocks of 50 or more cars, which rose to 65.7% from the previous crop year's 61.9% average. Equally telling was the fact that the proportion given over to movements in blocks of 100 or more cars also increased, taking a 23.5% share of the total against just 11.9% in the previous crop year.

High-throughput elevators continued to be the primary source for tendered grain shipments. During the first quarter of the 2009-10 crop year, 97.4% of the tendered grain tonnage was shipped from these larger facilities. Although consistent with the higher shares observed in recent years, this proved to be marginally less than the 97.7% share secured by these facilities for the 2008-09 crop year as a whole.

Figure 7: Western Canadian CWB Grain Volumes



In terms of originating carriers, CP retained its position as the largest handler of tendered grain in the first quarter. With 64.7% of the volume, the carrier easily outdistanced CN's 35.3% share. CP's first quarter share also proved to be significantly greater than the 41.8% share it had garnered in the previous crop year.

In aggregate, only 13.9% of the CWB's total grain shipments moved under tender to western Canadian ports in the first quarter of the 2009-10 crop year. Although the 0.6 million tonnes of tendered grain handled during this period marginally exceeded that handled a year earlier, the CWB's transportation savings for the period was unavailable.[16] The CWB reported that this was due to the implementation of new computer systems, and that this data will become available later in the crop year.[17]

2.2 Advance Car Awards Program

The 2009-10 crop year marked the commencement of the seventh season for the CWB's advance car awards program, with slightly more than 0.3 million tonnes of grain having been moved under it in the first quarter. This constituted just 8.3% of the total grain volume shipped by the CWB to western Canadian ports during the period. When considered alongside the 0.6 million tonnes of tendered grain already discussed, just 22.2% of the 4.2 million tonnes of grain shipped by the CWB in the first quarter moved under the umbrella of these two programs.

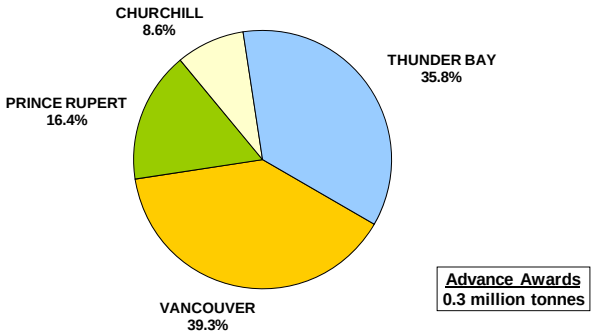
The composition of the grain shipped under the CWB's advance car awards program once again proved similar to that moved under its tendering program. There was minimal barley moved under the tendering program and none under advance awards. As a result, wheat and durum took comparatively larger shares of the movement. Wheat, which continued to be the foremost grain handled, accounted for almost 0.3 million tonnes and 76.2% of the program's overall volume. This was followed by less than 0.1 million tonnes of durum, which represented 23.8% of the total.

[16] The CWB defines its Transportation Savings as the savings in transportation costs it realizes from the discounts advanced by the successful bidders under the tender program, all freight and terminal rebates, and any financial penalties it may assess for non-performance.

[17] The CWB's transportation savings in the first quarter of the 2008-09 crop year amounted to $7.3 million.

Vancouver, which had ranked first among tendered grain destinations, also received the largest share of the volume shipped under the advance car awards program, 39.3%. Similarly, the second largest proportion was garnered by Thunder Bay, which accounted for 35.8% of the grain moved under the advance car awards program. Ranking third was Prince Rupert, whose 16.4% share of the advance car awards movement was less than the 30.3% it secured under the CWB's tendering program. A large part of this attrition was attributable to the substantive increase in the amount of grain directed to Churchill. Although no grain was directed to the port under the tendering program, 8.6% of the volume moved under the advance car awards program was.

Figure 8: Advance Car Awards – Destination Port



As was the case with tendered grain shipments, the vast majority of the grain moved under the advance car awards program, 96.1%, originated at high-throughput elevators. This proved only marginally below the 97.4% share cited earlier for tendered grain shipments. CP also handled the majority of this grain, taking a moderately greater 69.8% share in comparison to its 64.7% share on tendered grain.

When compared to tendered shipments, a significantly lesser volume of the grain shipped under the advance car awards program moved in blocks of 25 or more cars. This is because the cars allocated to shippers under the advance car awards program are often integrated with those obtained through the tendering program as a means of optimizing individual block or train movements. As such, this practice effectively dilutes the values that are obtained for the aggregate volume moved under the two programs. By way of example, 87.9% of this total volume moved in blocks of 25 or more railcars as compared to 91.9% for tendered grain alone. Similarly, the average overall size of these blocks amounted to 54.3 cars versus an average of 61.4 cars for tendered grain.

2.3 Other Commercial Developments

2.31 Market Access Issues Impact the GHTS

The commercial dangers of being overly reliant on foreign markets was brought into sharp focus early in the 2009-10 crop year when a German laboratory found a telltale marker from genetically modified (GM) Canadian flaxseed in European food products. With a zero tolerance on unapproved GM traits having been imposed by the European Union (EU), this discovery effectively led to the suspension of all Canadian sales to Europe, and the loss of Canada's largest flaxseed market.

The gene marker in question was ultimately traced back to a genetically-modified flaxseed variety, known as Triffid, which had been developed by the University of Saskatchewan's Crop Development Centre (CDC) in the late 1980s. Although developed further in the 1990s, Triffid was ultimately deregistered in 2001 over growing concerns that European regulators would not approve its GM traits. Triffid never actually went into commercial production, and the grain industry believed that all traces of the variety had been expunged through pedigreed seed recovery or processing.

The Canadian Grain Commission moved quickly to test samples taken from all recent flaxseed shipments. In doing so, they found three events testing positive for the presence of CDC Triffid. At the same time, the Canadian flaxseed industry began working with the EU's director general for health and consumer affairs to establish an acceptable protocol for the sampling, testing and documentation of all future shipments. Flaxseed shipments to Europe, however, remained embargoed through the remainder of the first quarter.

At about this same time, the United States Food and Drug Administration (FDA) identified yet another rail shipment of canola meal bound for the California dairy market containing traces of salmonella bacteria. The problem had first arisen in the fall of 2008, when a shipment from a Canadian canola crusher was identified as having been contaminated. Under American law, the discovery of such contamination results in the crusher automatically being placed on an "import alert list," with all subsequent movements to the US from that shipper being subjected to thorough testing, resulting in delayed border crossings and possible entry refusals. By the fall of 2009, five, or about half of Canada's crushers had been placed on the alert list.

The impetus for the increased FDA scrutiny stemmed from a number of high-profile incidents in which people had become ill as a result of the bacteria. Although the Canadian canola industry argued that these canola meal shipments were intended to be used as animal feed, and therefore subject to lower standards than when directed towards human consumption, the FDA remained unmoved. As a result, Canada's canola crushers were forced to scale back production, searching for alternative domestic and foreign canola-meal markets.

The canola industry was setback even further in October 2009 when China informed the Canadian Food Inspection Agency that all canola imported into that country as of 15 November 2009 would require certification as to it being free of black-leg; a soil-borne pathogen found around much of the world, including China.[18] China claimed that the embargoing of non-certified canola was mandated since the variant of black-leg present in Canada (as well as Australia) was more virulent than its own domestic strain. The potential disruption to trade with China, which purchased 2.9 million tonnes of canola seed in the 2008-09 crop year and denoted Canada's largest customer, was of paramount concern to the canola industry. Officials from the Canadian government as well as the Canola Council of Canada moved quickly in trying to find a solution to the problem.

As the first quarter of the crop year came to a close, the Canadian grain industry was coming to accept the realities of these new market-access issues and their potential impact on the entire GHTS. Beside the immediate marketing issues, there was the recognition that the system's capacity could be significantly constrained if greater product segregation was ultimately going to be required.

2.32 CN Delists Producer Car Loading Sites

In September 2009 CN announced that it was closing 53 of their 218 producer-car loading sites. The carrier stipulated that all of these sites had produced little or no traffic in several years. On a provincial basis, the 53 to be delisted encompassed nine from Manitoba; 24 from Saskatchewan, and 20 from Alberta. The announcement followed the 60-day notification period set out for such closures in the *Canada Transportation Act*.[19]

This announcement, however, was met with a widespread backlash from a number of affected communities and stakeholder groups. Producer-car loading advocates decried the loss of what they perceived as viable competitive options for moving grain given the significant rationalization of elevators and branch lines that had already taken place. They also attacked CN for having posted its planned closure notices during a period when farmers were preoccupied with the pending harvest, and less likely to take notice or respond. Through all of this, there were numerous calls for the federal government to intervene on the farmer's behalf, and to impose a moratorium on such closures until a broader legislative review into the rights of the producer to load his own grain could be undertaken. The subject was even broached in hearings held by the House of Commons Standing Committee on Agriculture and Agri-Food in October 2009.

CN renewed its argument to the effect that there had been no producer-car shipments from the majority of these sites in the preceding five years, and little traffic from those that did. Moreover, many had an alternative producer-car loading site situated within 25 kilometres of the ones slated for closure. The railway also stressed

[18] Black-leg can cause plant disease resulting in significant yield losses. It is not a significant threat in Canada due to the development of black-leg resistant varieties of canola.

[19] The *Canada Transportation Act* requires that CN and CP maintain a current listing on their corporate websites of the sidings they provide for producer-car loading. Any such siding may be closed by the railway following a 60-day notice of the planned closure in a newspaper with a general circulation in the area where the siding is located.

that the cost of track inspection and maintenance, required regardless of the site's actual usage, did not justify their continued support.

In light of what was quickly turning into a public-relations disaster, CN agreed to partially pull back on its plans. First, it agreed to reissue the notices that it had published concerning the planned closure of 13 of its 53 sites, as these had been widely viewed as insufficient. The railway also committed to delay any attempt at removing the physical infrastructure associated with these sidings pending further consultation with affected parties.

2.33 Railway Service Complaints Diminish

As reported in previous editions of the Monitor's reports, complaints over railway service and car allocation have been on the rise in recent years. Of particular concern has been a perceived decline in the consistency and reliability with which that service has been delivered. Grain shippers have frequently cited costly instances where railcars have not been spotted in a timely manner at country elevators for loading, or at destination terminals for unloading. The general car allocation process – always a contentious matter – also came under fire from shippers who argued that they were continually being shorted, often in preference to other shippers.

Since 2007, a number of grain shippers, all frustrated with the service they were receiving from CN, have brought their complaints to the Canadian Transportation Agency for redress. In most instances, the Agency found that the carrier had in fact breached its common carrier obligations, finding – as in the case brought forward by Great Northern Grain Terminals Ltd. – that the breach even had a wider "systemic" dimension.[20] In all such cases, the Agency directed CN to undertake specific remedial actions. In the year that followed, CN appeared to have taken a number of steps towards addressing at least some of these service issues. Shipper complaints became less vociferous as a consequence of improved railway service.

Still, in March 2009, Western Grain Trade Ltd. (WGTL) launched a similar complaint with the Agency concerning the service it had been receiving from CN at its facility in Hamlin, Saskatchewan. As a processor and exporter of special crops, WGTL maintained that reliable and consistent rail service was essential to its commercial success. Moreover, the shipper alleged that the erratic service it was receiving from CN had already undermined its business and caused it financial harm. The complainant indicated that it was ultimately seeking an order, consistent with the remedies previously advanced by the Agency, which would direct the carrier to provide service that better reflected the shipper's specific needs. By the close of the first quarter, however, a decision in the matter had still not been rendered.

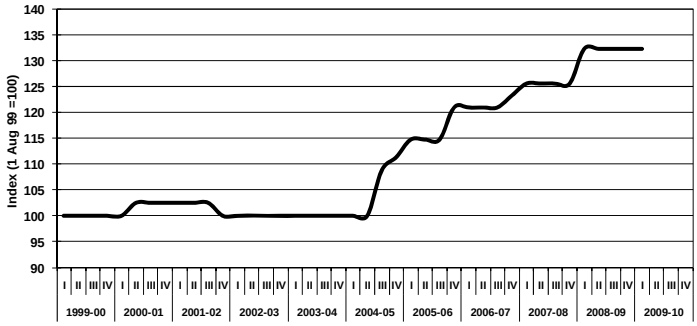
[20] See Canadian Transportation Agency Decision Number 344-R-2007, dated 6 July 2007.

3.0 System Efficiency and Service Reliability

3.1 Trucking

Short-haul trucking rates have risen substantially since the 2004-05 crop year. Through to the end of the 2008-09 crop year, commercial trucking rates had risen by a factor of 32.2% from what they had been a decade earlier. Ultimately, this increase reflected the effects of rising fuel and labour costs. To an extent, increased grain shipments also served to heighten the demand for carrying capacity, which gave service providers a greater degree of latitude in passing these costs onto their customers.

Figure 9: Composite Index – Short-Haul Trucking



Despite the reduction in fuel prices that ensued as a result of a sharp fall in the underlying cost of crude oil in the latter months of 2008, commercial trucking costs for the movement of grain remained unchanged from the relative highs they reached in the first quarter of the 2008-09 crop year. Moreover, the demand for their services remained comparatively high in light of the large volumes of grain still being moved at that time.

There were no increases noted for short-haul trucking rates in the first quarter of the 2009-10 crop year. As a result, the composite price index remained unchanged from the 132.2 recorded at the close of the previous crop year. Once again, the main reason for this appeared to be increased grain shipments driving the prevailing demand for carrying capacity.

3.2 Country Elevators

Total country elevator throughput, measured by shipments from primary elevator facilities, remained largely unchanged in the first quarter of the 2009-10 crop year, falling by just 0.3% to 8.3 million tonnes. Still, the decline in tonnage produced a lower capacity turnover ratio for the primary elevator system as a whole, which fell by 2.9% to 1.5 turns in the first quarter. Notwithstanding the immediate effects of lower throughput in the first quarter, an accumulated 1.0-million-tonne net reduction in storage capacity over the last decade has helped to improve the turnover ratio substantially. The progressive rise in these quarterly values over the course of the past decade demonstrates that the GHTS's remaining primary elevator network is handling comparatively more grain than at any other point in its history.[21]

The amount of grain maintained in inventory increased by 8.5% in the first quarter, rising to a weekly average of 2.8 million tonnes compared to the 2.6-million-tonne average posted in the same period twelve months earlier. Although much of this increase appears to have been tied to an overall slow-down in system activity, the total stock level still proved consistent with the lower values recorded in recent years, and well below those posted in the first two years of the GMP.[22] The amount of time spent by grain in inventory also increased in the first quarter, rising by 7.8% to an average of 31.9 days compared to 29.6 days the year previous. This suggests that grain inventories were turning over more slowly because of reduced commercial activity.

[21] Comparatively, the annualized equivalent of the volume of grain that was shipped from the primary elevator system in the first quarter would have yielded a capacity turnover ratio of 6.0. This ratio compares favourably with the better values recorded under the GMP, including the 6.6 realized as its best in the 2008-09 crop year.

[22] Country elevator stocks have generally been falling in conjunction with the overall reduction in the system's storage capacity. Despite periodic fluctuations, the quarterly value remains well below the record average of 4.1 million tonnes, which was set in the second quarter of the 1999-2000 crop year.

These forces served to elevate the overall average weekly stock-to-shipment ratio for the period by 7.1%, which grew to 4.5 from the 4.2 scored a year earlier. This value affirms that grain inventories were still more than sufficient to meet the prevailing demand, and that the grain companies faced few challenges in sourcing product during this period.

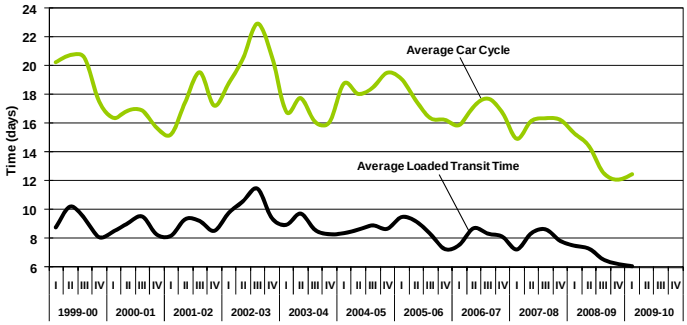
3.3 Railway Operations

The volume of grain moved in covered hopper cars during the first quarter increased by 14.3%, to 7.1 million tonnes from 6.2 million tonnes a year earlier. With originations of 6.9 million tonnes, the Class 1 carriers saw a 0.9-million-tonne increase in volume, representing a gain of 14.8%, for the period. This represented 97.3%, of the total movement, unchanged from what they garnered twelve months earlier. In comparison, shortline-originated volumes, which totalled 0.2 million tonnes in the first quarter, actually decreased by 0.8%.[23] In addition, there was a sharper rise in the amount of grain originated by the grain-dependent network than in the non-grain-dependent network, 23.2% versus 10.6% respectively.

3.31 Car Cycles

The railways' average car cycle continued to show improvement, with the first quarter's average declining by 18.5% from that posted in the same period a year earlier, falling to 12.5 days from 15.3 days. Although this did not constitute a record low, it ranked among the best quarterly values witnessed under the GMP. Once again, the reduction proved widespread, with improvements noted in each of the three primary corridors. The most substantive improvement occurred in the Thunder Bay corridor, where the quarterly average fell by 21.6% to 11.7 days from 13.7 days. This was followed closely by a 20.5% reduction in the Vancouver corridor's average, which fell to 13.0 days compared to 16.4 days a year earlier. The average posted in the Prince Rupert corridor also declined, albeit by a more moderate 7.2%, falling to 12.2 days versus 13.1 days twelve months before.

Figure 10: Average Railway Car Cycle



The improvement extended equally to the loaded and empty portions of the car cycle. In the case of the former, the average time under load fell by 18.9%, to 6.1 days from 7.5 days a year earlier. The empty portion fell 17.9% with the average falling to 6.4 days from 7.8 days.

Both main carriers showed equally significant improvements, with the CN average falling by 18.8% compared to an18.2% reduction for CP. However, some differences were noted with respect to the loaded and empty portions of each carrier's car cycle. CN posted a 26.1% reduction in the loaded portion of its average cycle against a 10.4% reduction in the empty portion. The reverse was true for CP, which posted an 11.3% reduction on the loaded portion of its movement compared to a 23.8% reduction on the empty component.

Similar improvements were seen in non-special as well as special crops. The average car cycle for non-special crops fell by 18.9% to 12.3 days in the first quarter of the 2009-10 crop year. This value was 14.6% less than the 14.4-day average for special crops, which also declined by 11.6%. On the whole, these results continue to suggest that there is a structural difference in the service provided by the railways in the movement of special crops.

[23] Given a 13.7% decrease in producer car shipments in the first quarter, the decline in originated shortline volume proved more moderate than anticipated. Much of this was due to the volumes originated by new entrants such as the Great Sandhills Railway.

While a continued focus on unit train operations explains some of this improvement, the more cogent explanation may be that grain did not have to compete with other commodities for railway capacity as it had in past years. The global financial crisis that began to take hold in the late summer of 2008 caused overall railway volumes to plummet. Consequently both CN and CP have been able to direct a larger share of their carrying capacity towards the movement of those commodities that remained buoyant such as export grains.

3.32 Railway Freight Rates

As outlined in the Monitor's previous reports, CN and CP broke with the practice of advancing largely parallel adjustments to their single-car freight rates at the beginning of the 2003-04 crop year. They made the first substantive changes to the incentive discounts that they had been offering for movements in multiple-car blocks at that same time. Over the next four crop years, railways set new rates at the beginning of the crop year followed by at least one adjustment in the second half. This new process aimed at maximizing the revenues were entitled to receive under the revenue cap; a task for which CN and CP have both shown a substantial aptitude.

But the largely mileage-based, per-tonne rate structure that gave rise to these across-the-board adjustments was itself beginning to change. One of the most striking changes occurred at the beginning of the 2006-07 crop year when CN initiated a partial changeover to commodity-specific, per-car charges.[24] By the close of the 2007-08 crop year both railways had completed a a wholesale conversion in the rate structures of both carriers had been completed. In the 2007-08 crop year brought about a renewed emphasis on differential pricing. Consequently more substantive rate increases were being applied on shipments to Thunder Bay and Churchill rather than those to the west coast. At the same time, CN also widened the advantage it had begun giving rates applied to single-car movements to Prince Rupert.[25]

There was also an initial move towards seasonal pricing, which tied rates to the prevailing demand for railway carrying capacity at various points in the crop year. All of this introduced a new element of complexity to the movement of grain, with the railways' single-car rates either rising or falling accordingly. This pattern, however, was unduly complicated in the 2008-09 crop year by virtue of the unusual considerations that arose from legal challenges presented by the railways.[26] As a result, the single-car freight rates posted during the 2008-09 crop year initially moved sharply higher, and then sharply lower. By the end of the crop year, these freight rates were lower than those observed twelve months earlier.

The 2009-10 crop year saw CP extend its existing single-car rates through to the end of the first quarter. CN took much the same action on shipments to the west coast initially, but adopted a more complex mix of both increases and decreases in early October 2009. On the whole, single-car movements of wheat to Vancouver benefited from an average rate reduction of about 6.1%, but these varied widely in relation to distance. By way of example, single-car shipments from Alberta experienced an average reduction of 3.1%; Saskatchewan, 5.9%; and Manitoba, 10.7%. Much the same was true of single car shipments to Prince Rupert, which fell collectively by an average of 3.7%, but which saw an increase of some 1.7% applied against movements from

[24] In adopting per-car charges, CN grouped its single-car rates according to the average loading weights for commodities having similar densities. As a result, the per-car charges published for a given group differed from those published for another. The complexities introduced as a result of the adoption of this structure makes tracking all rate changes impractical. As a result, the GMP focuses its attention on the changes pertaining to the movement of wheat and those grains grouped with it.

[25] At the beginning of the GMP, single car rates for grain moving to Prince Rupert were about 13% greater than those applicable on its movement to Vancouver. The actions taken by CN in reducing its rates in the Prince Rupert corridor over the course of the last several years denotes a significant change in its pricing strategy, and one that has resulted in a substantial increase in volume for this more northerly port.

[26] CN and CP had moved to legally challenge an earlier decision of the Canadian Transportation Agency concerning a one-time adjustment to the Volume-Related Composite Price Index for the 2007-08 crop year. While appealing this decision to the Federal Court of Appeal, neither carrier moved to incorporate the adjustment mandated by the Agency in their rate structures. This meant that both CN and CP ran the risk of exceeding their revenue caps by a substantial margin for a second consecutive year if the court ultimately failed to find in their favour. When the Federal Court of Appeal upheld the Agencies decision, and the Supreme Court dismissed the carriers' later application for leave to appeal that decision, the stage was set for a recompression of the carriers' rate structures in order to preclude another large overage in revenue.

Alberta, while reductions of about 3.1% and 10.6% were respectively given to those from Saskatchewan and Manitoba.

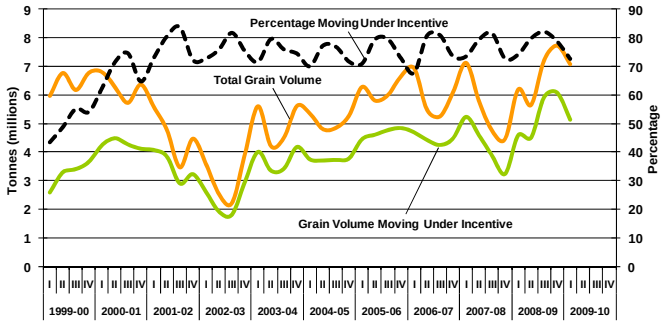
Single-car rates to Thunder Bay saw a similar restructuring, although these rates were raised at the beginning of the 2009-10 crop year as much as 10%. Not all origins received this increase. As with the pattern referred to above, the increase appeared to be tied to distance, with the rates for points in much of Manitoba incurring no increase while those positioned further afield experienced increases that ranged from about 5% in parts of northern Manitoba and northeastern Saskatchewan, to 10% in western Saskatchewan and Alberta. These rates were largely rolled back by about 6.5% in mid October 2009. By the close of the first quarter, the net effect of all this was an average overall increase of about 1.9%, although this result was shaped by a reduction of 1.2% on single-car shipments from Manitoba, and increases of about 1.8% and 2.8% on movements from Saskatchewan and Alberta respectively.

Running somewhat counter to these pricing actions was a reduction in the single-car rates applicable on grain moving to Churchill, which were cut by an average of 14.3% at the outset of the crop year. Here too, the reductions also varied according to distance, and generally ranged from a low in the area of 10% to high of 22%. The smaller reductions were tied to rates from points in northern Manitoba and Saskatchewan, while the steepest were associated with points in southern Saskatchewan.

Even so, the compound effect of the price changes witnessed over the course of the last decade has produced some significant contrasts. By the close of the first quarter, the single-car rates on movements in the Vancouver corridor had increased by an average of 7.7%, while those in the Thunder Bay corridor had risen by a more substantive 15.1%.[27] For the more northerly ports, the compound effect of CN's adjustments saw the rates on movements to Prince Rupert actually decline by 11.0%, while those applicable on Churchill-bound shipments rose by 19.5%.[28]

There have been significant changes to the structure of the financial incentives both carriers have used to promote the movement of grain in multiple car blocks. The most noteworthy of these involved the elimination of the smaller-block discounts, and an increase of those tied to the largest.[29] Over the course of the last decade, the discount applicable on these latter movements has risen by a factor of 60%, rising from $5.00 per tonne to $8.00 per tonne. There were no further adjustments to these incentives in the first quarter of the 2009-10 crop year.

Figure 11: Railway Volume Moving Under Incentive



For CN the discounts offered on movements in blocks of 50-99 cars

[27] While these composite values help underscore overall escalation of single-car rates in the two corridors, they also obscure some of the differences between the carriers. CN's single-car rate increases during this period amounted to an average of 5.8% on movements to Vancouver, and 15.2% on those destined to Thunder Bay. CP's corresponding average increases amounted to 9.6% and 15.0% respectively.

[28] Owing to the limitations of consistent pricing data over the full span of the GMP, inter-carrier comparisons of the single-car rates on CN and CP originated traffic to Prince Rupert and Churchill are not possible. The averages inherent in the increases posted by CN provide the best indication of price movement in both corridors.

[29] There are structural differences in the blocks sizes used by CN and CP. Although both define two sizes, CN's program segments these into blocks of 50-99 cars, and 100 or more cars. This contrasts with the segmentation used by CP, which employs somewhat larger block sizes, namely those involving shipments of 56-111 cars, and those consisting of 112 or more.

remained at $4.00 per tonne, and movements of 100 or more cars stayed at $8.00 per tonne. Likewise CP's $5.00-per-tonne discount for movements in blocks of 56-111 cars remained unchanged as did its $8.00-per-tonne maximum on shipments in blocks of 112 cars or more.

The quantity of grain moved under the railways' incentive programs during the first quarter increased by 12.0%, to 5.1 million tonnes from 4.6 million tonnes a year earlier. But it fell noticeably short of the 21.1% increase tied to non-incentive based movements. A 35.8% increase in the value of the discounts earned by shippers rose to an estimated $34.2 million from $25.2 million a year earlier. The increased discounts that both CN and CP implemented in the second quarter of the 2008-09 crop year. Consequently, the first quarter's average-earned discount rose by 21.2%, to $6.66 per tonne from $5.49 per tonne twelve months before.

3.4 Terminal Elevator and Port Performance

3.41 Terminal Elevators

A total of 6.5 million tonnes of grain passed through the terminal elevators of Canada's western ports in the first quarter of the 2009-10 crop year. This marked a 15.2% increase from the 5.6 million tonnes handled in the same period a year earlier. Much of the gain was concentrated on the west coast, which collectively handled an additional 1.0 million tonnes of grain.

Accounting for over half of the overall throughput, Vancouver again proved itself to be the largest export gateway. Total throughput for the port in the first quarter rose by 22.8%, increasing to 3.6 million tonnes from 2.9 million tonnes a year earlier. Although Prince Rupert's throughput ranked well behind that of Vancouver, its first quarter volume rose by 55.9%, jumping to 1.0 million tonnes from the previous crop year's handlings of 0.7 million tonnes.[30] In both instances, these gains were largely tied to increased shipments of CWB grains.

Comparatively, the results for the eastern gateways of Churchill and Thunder Bay were more mixed. With a 24.4% increase in terminal throughput, Churchill's volume totalled slightly more than 0.5 million tonnes. This denoted a significant resurgence in volume for the port, as well as its third largest throughput for the first quarter since the beginning of the GMP. The port of Thunder Bay saw its first quarter volume decrease by 17.9%, falling to 1.3 million tonnes from 1.6 million tonnes a year earlier. Much of the decline was attributable to reductions in wheat and durum shipments.

Terminal inventories during the first quarter decreased by 10.6%, falling to an average of 1.2 million tonnes from 1.4 million tonnes a year earlier. Much of this decline was attributable to reductions in non-CWB stocks, the most significant being canola. Inventories for most ports moved lower as well. These reductions ranged from 5.7% at Thunder Bay to 21.9% and 31.2% declines at Vancouver and Churchill respectively. Conversely the inventories maintained at Prince Rupert increased by 32.6%.

In conjunction with the reduction in inventories, the average amount of time spent by grain in inventory also fell, declining by 22.0% in the first quarter, to an average of 18.1 days from 23.2 days a year earlier. Storage-time reductions occurred in all ports except Thunder Bay, with the most significant being in Vancouver and Churchill, 36.4% and 35.7% respectively, producing averages of 11.0 days in the case of the former and 14.8 days in the case of the latter. A 16.9% reduction at Prince Rupert, saw stocks remaining on hand for an average of 16.2 days. A 12.2% increase in the storage time at Thunder Bay raised the port's quarterly average to 40.5 days, the longest term yet observed in the 10 years of the GMP.

Year-over-year variations in individual terminal throughputs and inventories produced widely different shifts in the stock-to-shipment ratios for each of the major grains. At Vancouver, most ratios moved lower, while those associated with Prince Rupert generally increased. Although Thunder Bay saw an increase in the ratios tied to most of its CWB grains, changes in the ratios among non-CWB grains proved decidedly more negative. So too was the change in the ratio for wheat at Churchill. Although few ratios fell below the all-important 1.0 threshold,

[30] Throughput at Prince Rupert proved to be the third largest for the first-quarter under the GMP. For the most part, the volume gains made by the port reflect the economic advantages that it has received in recent years: A reduction in CN's applicable freight rates; and an improvement in the corridor's overall car allocation.

there were some noteworthy exceptions.[31] Among these was a 0.5 ratio for canola moving through Vancouver. Although shortages can never be fully avoided, and inventories can be tight at specific periods, few concerns were registered during the first quarter of the 2009-10 crop year.

3.42 Port Performance

Some 215 vessels called at western Canadian ports during the first three months of the 2009-10 crop year, an increase of 13.2% from the 190 vessels that called during the same period a year earlier. The average amount of time these vessels spent in port increased by 71.0% in the first quarter, rising to an average of 5.3 days from 3.1 days a year earlier. This denoted the largest average yet recorded for a first quarter since the beginning of the GMP.

On the whole, much of the first quarter's increase was attributable to a sharp rise in vessel waiting time, which climbed by 140.0%, to an average of 2.4 days from the preceding crop year's 1.0-day average. Waiting times of vessels loading at Vancouver and Prince Rupert increased substantially - by 175.0% and 231.3% to averages of 3.3 days and 5.3 days respectively. To a large extent, this increase was attributable to the delays occasioned by the need to wait for specific grains and grades. Although loading time in the first quarter also increased, the gain proved far more moderate, climbing by 38.1% to an average of 2.9 days from 2.1 days a year earlier.

Vessels calling at the west coast ports of Vancouver and Prince Rupert had the largest overall increases, the most significant posted by Prince Rupert, where the length of the typical layover jumped by 144.7%, to an average of 9.3 days from 3.8 days a year earlier. The duration of stays at Vancouver rose by a lesser 65.9%, increasing to an average of 6.8 days from 4.1 days. The rise at Churchill of18.4% increase pushed the average stay in port up to 5.8 days from 4.9 days. The story was much different at Thunder Bay, where the average layover fell by 6.3% to 1.5 days.

3.5 The Supply Chain

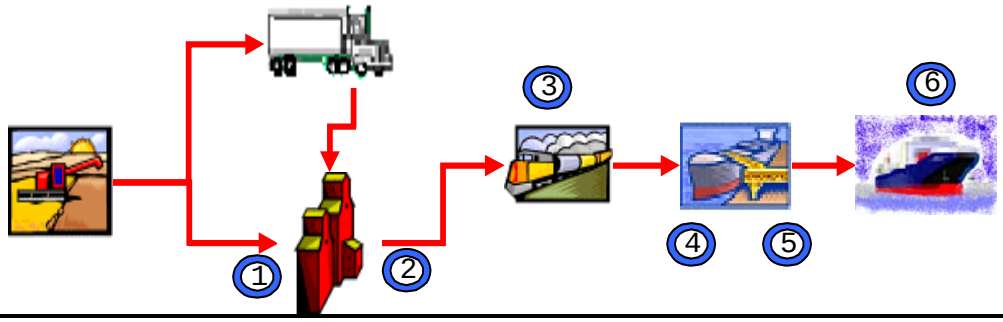
As outlined in earlier editions of the Monitor's quarterly and annual reports, the supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. For the 2008-09 crop year, it was observed that this process required an average of 51.2 days - the lowest annual average recorded in the GMP's 10 year history. Much of this was shaped by significant reductions in each of the primary supply chain elements: country elevator storage time, loaded railway transit time, and terminal elevator storage time.

Notwithstanding a further reduction of 0.7 days in the railways' average loaded transit time, the overall amount of time involved in moving grain through the supply chain rose by 9.6% in the first quarter of the 2009-10 crop year, to an average of 56.1 days. The additional time spent by grain in storage, increased by an average of 4.2 days when in the country elevator system, and by another 1.4 days when it entered the terminal elevator system. Despite the overall increase this represented, the amount of time spent by grain in moving through the GHTS in the first quarter remains one of the better values recorded for the period.

In addition to the preceding, a few other comments concerning the performance of the GHTS in the first quarter of the 2009-10 crop year are warranted:

[31] A stock-to-shipment ratio in excess of a value of 1.0 implies that a terminal's existing stocks were sufficient to fill the demand posed by vessels loading in the coming week.

Table 1: The GHTS Supply Chain



	SUPPLY CHAIN ELEMENT	TABLE	1999-00	2005-06	2006-07	2007-08	2008-09	YTD 2009-10	SUPPLY CHAIN EFFECT
	SPEED RELATED								
2	Country Elevator – Average Days-in-Store	3B-4	41.7	30.1	30.7	31.1	27.7	31.9	▲
3	Average Railway Loaded Transit Time (days)	3C-4	9.2	8.6	8.2	8.0	6.8	6.1	▼
5	Terminal Elevator – Average Days-in-Store	3D-4	18.6	17.9	19.2	21.0	16.7	18.1	▲
	Average Total Days in GHTS		69.4	56.6	58.1	60.1	51.2	56.1	▲
	SERVICE / ASSET RELATED								
1	Average Country Elevator Capacity Turnover Ratio	3B-2	4.8	6.2	6.5	6.0	6.7	6.0 *	▼
4	Average Terminal Elevator Capacity Turnover Ratio	3D-2	9.1	8.7	8.3	8.5	10.0	n/a	–
3	Average Railway Car Cycle (days)	3C-4	19.9	17.3	16.8	15.9	13.4	12.5	▼
6	Average Vessel Time in Port (days)	3D-7	4.3	4.8	5.3	5.0	4.6	5.3	▲

* For comparative purposes, the value of 6.0 presented here represents an annualized equivalent for the 1.5 actually recorded as the country elevator's capacity turnover ratio in the first three months of the 2009-10 crop year.

- Firstly, although the grain supply declined by 2.3%, falling to 64.5 million tonnes from 66.0 million tonnes, the 7.2 million tonnes of grain moved in the first three months of the 2009-10 crop year proved to be the second largest first-quarter volume in the GMP's history. As a result, the pressures brought to bear on the GHTS in the first quarter were comparable to the pace set in the first quarter of the 2007-08 crop year, when the system moved a record 7.3 million tonnes.

- Secondly, the effects of the financial crisis that impacted commodity markets around the world at the beginning of the 2008-09 crop year were still reverberating a year later. North American railway shipments remained substantially below what they had been before the onset of what had become a economic recession. From the vantage point of the GHTS, however, this proved advantageous in as much as it continued to free capacity that could be directed towards the movement of grain. This was reflected in the first quarter's 12.5-day average for loaded railway transit time, which proved to be among the best yet achieved in the GMP's history. Moreover, there were few complaints to be heard from grain shippers regarding the service that they were receiving from the railways during this period.

- Finally, grain moved through the GHTS at a faster pace than seen in the previous crop year, continuing a consistent trend to move through the supply chain faster pace than experienced in the first few years of the GMP. Much of the overall improvement has come from a virtual 10-day reduction in the amount of time spent by grain as inventory in the country elevator network, which has clearly been driven by the rationalization of these same facilities. Complementing this, however, has been the benefit of recent

improvements in the railways' average loaded transit time, which currently stands roughly three days less than that reported in the GMP's base year.

4.0 Producer Impact

4.1 Producer Netback

One of the GMP's key objectives is to determine the impact on producers arising from changes in the GHTS. The principal measure in this regard is the *producer netback,* an estimation of the per-tonne financial return to producers after the various logistics costs, collectively known as the export basis, are deducted from the actual price realized in a grain sale.[32]

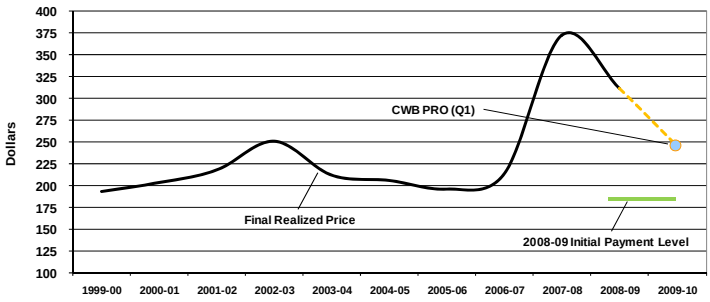
In its earlier reports, the Monitor described how increased commodity prices had largely been responsible for the improvement in the per-tonne returns accruing to producers of wheat, durum, canola, and yellow peas. Even in those years when the export basis fell, the financial gain derived from the reduction proved far less than that gained from better grain prices. But the escalation in grain prices has been highly erratic. In the first four years of the GMP, grain prices moved steadily higher. This, however, was followed by a three-year decline beginning in the 2003-04 crop year. But prices rallied sharply in the 2006-07 crop year, with even more substantial gains having been posted a year later. By the 2007-08 crop year, the financial returns accruing to farmers had reached a peak as measured during the GMP's timeframe. Unfortunately, the global financial crisis impacted commodity markets in the opening months of the 2008-09 crop year, which only added further downward pressure on weakening grain prices that were contending with increased world supplies. Although the producers' netback moved sharply lower as a result, they remained superior to those initially gauged under the GMP in the 1999-2000 crop year.

The GMP only includes these indicators in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the crop year itself. Nevertheless, current price and input-cost data is collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first quarter of the 2009-10 crop year are summarized below.

4.11 CWB Grains

The GMP uses the CWB's Pool Return Outlook (PRO) for 1 CWRS wheat (13.5% protein) as the principal barometer of changing CWB grain prices. Throughout much of the 2009-10 crop year's first quarter, the CWB's PRO for 1 CWRS wheat moved steadily downwards. In comparison to the 2008-09 crop year's final realized price of $311.36 per tonne, the PRO fell a further 21.3%, closing out October at $245.00 per tonne. This, however, still proved to be well above the farmer's initial payment, which had opened the year at $186.30 per tonne.

Figure 12: Recent Price Changes – 1CWRS Wheat (dollars per tonne)



Much of the impetus for this decline in price stemmed from the expectation of increased global supplies in consideration of weaker overall demand. Although North American production factored into this, it was largely the persistence of record exports from the European Union, Russia and Ukraine that helped to place additional downward pressure on wheat prices. As a result, the financial returns accruing to producers are expected to decline sharply in the 2009-10 crop year, although they are likely to compare reasonably well against those witnessed earlier in the GMP.

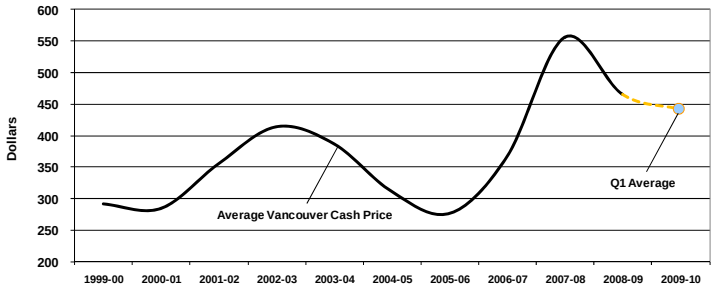
[32] Among other elements, the export basis includes the cost of trucking, elevator handling and railway movement. It also includes where applicable, the CWB's pooling costs, and other incidental charges. Similarly, it also includes a deduction for any of the financial benefits accruing to producers as a result of the receipt of trucking or any similar premiums, as well as the CWB's transportation savings.

4.12 Non-CWB Grains

Although not nearly as significant a decline as that posted for wheat, the Vancouver cash price for 1 Canada Canola also fell in the first quarter of the 2009-10 crop year, decreasing by 4.9% to an average of $442.21 per tonne compared to the previous crop year's final average of $465.22 per tonne. This decline was prompted by the continuing uncertainty surrounding the expected harvest as well as the demand for Canadian exports. The expectations of a large soybean harvest in the United States also added to the downward price pressure.

The magnitude of the price decrease noted for 1 Canada canola strongly suggests that there will be a negative impact on the per-tonne financial returns of western Canadian grain producers in the 2009-10 crop year, although as with wheat, prices and returns are still expected to be strong by historical standards.

Figure 13: Recent Price Changes – 1 Canada Canola (dollars per tonne)



Rising input costs seemed likely to further erode these returns. Among the most pronounced of these were the increases tied to various country and terminal elevator activities. In the case of the former, these increases ranged from a low of 0.5% for elevation to a high of 6.1% for storage. To a lesser degree, the escalation on the tariff rates tied to terminal elevation and storage activities amounted to about 1.0% and 1.9% respectively. Running somewhat counter to these increases were the changes made to the applicable freight rates. While CP extended its prevailing single-car rates throughout the first quarter, CN initiated a complex series of adjustments late in the period. For the most part, these resulted in reductions that ranged from a low of about 3.7% on movements to Prince Rupert, to a high of 14.3% on those to Churchill.

4.2 Producer-Car Loading

As related in the Monitor's 2008-09 annual report, the aggregate number of producer-car loading sites had fallen from 709 to 437 over the course of the last decade. Much of this net decline was the product of a reduction in the number of sites maintained by CN and CP, which fell from 644 to 333. Still, a portion of these were initially taken over by a variety of shortline railways, which served to raise their count from 65 at the outset of the GMP to a height of 166 by the end of the 2003-04 crop year. The subsequent demise of several small carriers, however, resulted in some of these reverting back to Class-1-carrier control. By the end of the 2008-09 crop year only 104 producer-car loading sites remained under the umbrella of shortline operators. The first quarter of the 2009-10 crop year saw the Class 1 carriers close a further 40 producer-car loading sites, which reduced their number by 12.0% to 293. With no change in the number operated by the shortline carriers, the total number of producer-car loading sites slid from 437 to 397.

Producer-car shipments during the first quarter of the 2009-10 crop year decreased by 13.7% from that handled a year earlier, falling to 2,123 carloads from 2,459 carloads. In relation to the volume of grain shipped in covered hoppers, producer-car loadings accounted for just 2.7% of the overall total. This share increased to 4.6% when gauged against CWB grains alone, which constituted the majority of producer car movements. Both values were substantially lower than the 3.6% and 6.6% shares respectively secured twelve months before.

Synopsis – Industry Overview

The purpose of the Industry Overview series of indicators is to track changes in grain production, the structure of the industry itself and the infrastructure comprising the GHTS. Changes in these areas can have a significant influence on the efficiency, effectiveness and competitiveness of the GHTS as a whole. They may also be catalysts that shift traditional traffic patterns, the demand for particular services, and the utilization of assets.

Highlights – First Quarter 2009-10 Crop Year

Grain Production and Supply

- *Grain production decreased by 8.7% to 55.1 million tonnes.*
  - *Consistent with normal crop production under the Grain Monitoring Program.*
- *Carry forward stocks increased by 66.6% to 9.4 million tonnes.*
  - *Increase prompted by heightened grain production in the 2008-09 crop year.*
- *Overall grain supply decreased by 2.3% to 64.5 million tonnes.*

Railway Traffic

- *Railway tonnage during the first quarter increased 13.8% to 7.2 million tonnes.*
  - *Reflected heightened export demand for CWB grains.*
- *Traffic to most western Canadian ports increased in the first quarter.*
  - *Vancouver – up by 25.0% to 4.2 million tonnes.*
  - *Thunder Bay – down by 20.6% to 1.4 million tonnes.*
  - *Prince Rupert – up by 44.8% to 1.1 million tonnes.*
  - *Churchill – up by 16.0% to 0.4 million tonnes.*

Country Elevator Infrastructure

- *Moderate reductions recorded during the first quarter.*
  - *Grain delivery points decreased by 0.7% to 270.*
  - *Number of country elevators decreased by 1.9% to 359.*
- *Elevator storage capacity increased by 1.2% to 6.1 million tonnes.*
- *Elevators capable of loading in blocks of 25 or more cars decreased by 0.8% to 241.*
  - *Accounted for 67.1% of total elevators.*
  - *Accounted for 90.1% of total storage capacity.*
- *Elevators capable of loading in blocks of 50 or more cars increased by one to 186.*
  - *Accounted for 51.8% of total elevators.*
  - *Accounted for 81.8% of total storage capacity.*

Railway Infrastructure

- *Western Canadian rail network remained unchanged at 17,904.7 route-miles.*
- *Okanagan Valley Railway suspends shortline operations in September 2009.*
- *CN transfers 84.5 route-miles of its Saskatchewan infrastructure to new shortline, Last Mountain Railway.*
  - *Commences operations between Davidson and Regina in October 2009.*
- *Discontinuance plans for some 830 route-miles of CN and CP infrastructure remain.*

Terminal Elevator Infrastructure

- *Licensed GHTS terminal elevators remained unchanged at 15.*
  - *Licensed storage capacity remained unchanged at 2.5 million tonnes.*
- *Terminal elevator unloads for the first quarter increased by 6.3% to 74,059 carloads.*

Indicator Series 1 – Industry Overview

Table	Indicator Description	Notes	1999-00	2006-07	2007-08	2008-09	2009-10 Q1	Q2	Q3	YTD (1)	% VAR	
	Production and Supply [Subseries 1A]											
1A-1	Crop Production (000 tonnes)	(1)	55,141.7	49,264.6	48,517.3	60,351.7	55,093.9	-	-	55,093.9	-8.7%	▼
1A-2	Carry Forward Stock (000 tonnes)	(1)	7,418.2	12,424.7	7,450.6	5,646.6	9,405.3	-	-	9,405.3	66.6%	▲
	Grain Supply (000 tonnes)	(1)	62,559.9	61,689.3	55,967.9	65,998.3	64,499.2	-	-	64,499.2	-2.3%	▼
1A-3	Crop Production (000 tonnes) – Special Crops	(1)	3,936.7	3,938.1	4,404.3	5,157.4	5,556.3	-	-	5,556.3	7.7%	▲
	Rail Traffic [Subseries 1B]											
1B-1	Railway Grain Volumes (000 tonnes) – Origin Province	(1)										
1B-2	Railway Grain Volumes (000 tonnes) – Primary Commodities	(1)	26,440.8	24,311.7	22,766.5	27,338.4	7,173.4	-	-	7,173.4	13.8%	▲
1B-3	Railway Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
1B-4	Railway Grain Volumes (000 tonnes) – Special Crops	(1)	2,103.4	2,344.3	2,481.0	2,645.4	719.9	-	-	719.9	-11.4%	▼
	Country Elevator Infrastructure [Subseries 1C]											
1C-1	Grain Delivery Points (number)	(2)	626	272	276	272	270	-	-		-0.7%	–
1C-1	Grain Elevator Storage Capacity (000 tonnes)	(2)	7,443.9	5,808.2	5,952.5	6,059.0	6,133.1	-	-		1.2%	▲
1C-1	Grain Elevators (number) – Province	(2)										
1C-2	Grain Elevators (number) – Railway Class	(2)	917	371	378	366	359	-	-		-1.9%	▼
1C-3	Grain Elevators (number) – Grain Company	(2)										
1C-4	Grain Elevators Capable of Multiple Car Loading (number) – Province	(2)										
1C-5	Grain Elevators Capable of Multiple Car Loading (number) – Railway Class	(2)	317	240	243	243	241	-	-		-0.8%	–
1C-6	Grain Elevators Capable of Multiple Car Loading (number) – Railway Line Class	(2)										
1C-7	Grain Elevator Openings (number) – Province	(2)										
1C-8	Grain Elevator Openings (number) – Railway Class	(2)	43	48	10	18	9	-	-		-50.0%	▼
1C-9	Grain Elevator Openings (number) – Railway Line Class	(2)										
1C-10	Grain Elevator Closures (number) – Province	(2)										
1C-11	Grain Elevator Closures (number) – Railway Class	(2)	130	51	3	30	16	-	-		-46.7%	▼
1C-12	Grain Elevator Closures (number) – Railway Line Class	(2)										
1C-13	Grain Delivery Points (number) – Accounting for 80% of Deliveries	(2)(3)	217	97	91	89	n/a	n/a	n/a		n/a	–
	Railway Infrastructure [Subseries 1D]											
1D-1	Railway Infrastructure (route-miles) – Grain-Dependent Network	(2)	4,876.6	4,137.7	3,658.8	3,591.6	3,591.6	-	-		0.0%	–
1D-1	Railway Infrastructure (route-miles) – Non-Grain-Dependent Network	(2)	14,513.5	14,357.6	14,319.2	14,313.1	14,313.1	-	-		0.0%	–
1D-1	Railway Infrastructure (route-miles) – Total Network	(2)	19,390.1	18,495.3	17,978.0	17,904.7	17,904.7	-	-		0.0%	–
1D-2	Railway Grain Volumes (000 tonnes) – Grain-Dependent Network	(1)	8,686.5	6,988.8	6,648.9	7,586.4	2,277.1	-	-	2,277.1	23.2%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Non-Grain-Dependent Network	(1)	16,975.8	16,748.1	15,435.1	19,173.6	4,792.2	-	-	4,792.2	10.6%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Total Network	(1)	25,662.3	23,736.9	22,084.0	26,760.0	7,069.3	-	-	7,069.3	14.3%	▲
1D-3	Shortline Railway Infrastructure (route-miles)	(2)	3,043.0	2,023.2	1,870.7	1,987.0	2,071.5	-	-		10.7%	▲
1D-3	Shortline Railway Grain Volumes (000 tonnes)	(1)	2,090.5	1,059.1	578.3	761.5	189.9	-	-	189.9	-0.8%	▼
1D-5	Railway Grain Volumes (000 tonnes) – Class 1 Carriers	(1)	23,571.8	22,677.8	21,505.7	25,998.5	6,879.4	-	-	6,879.4	14.8%	▲
1D-5	Railway Grain Volumes (000 tonnes) – Class 2 and 3 Carriers	(1)	2,090.5	1,059.1	578.3	761.5	189.9	-	-	189.9	-0.8%	▼
1D-6	Grain Elevators (number) – Grain-Dependent Network	(2)	371	117	117	113	115	-	-		1.8%	▲
1D-6	Grain Elevators (number) – Non-Grain-Dependent Network	(2)	513	238	240	234	226	-	-		-3.4%	▼
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Grain-Dependent Network	(2)	2,475.4	1,575.6	1,593.9	1,611.1	1,662.3	-	-		3.2%	▲
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Non-Grain-Dependent Network	(2)	4,847.6	4,169.0	4,274.7	4,370.8	4,398.3	-	-		0.6%	–
	Terminal Elevator Infrastructure											
1E-1	Terminal Elevators (number)	(2)	15	16	15	15	15	-	-		0.0%	–
1E-1	Terminal Elevator Storage Capacity (000 tonnes)	(2)	2,678.6	2,642.6	2,475.6	2,475.6	2,475.6	-	-		0.0%	–
1E-2	Terminal Elevator Unloads (number) – Covered Hopper Cars	(1)	278,255	261,204	245,213	294,335	74,059	-	-	74,059	6.3%	▲

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Railway Grain Volumes). The accompanying percentage variance denotes the relative change in the current YTD value compared to the same period a year earlier.
(2) – Quarterly values for non-volume-related indicators (i.e., Grain Delivery Points) are "as at" the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period compared to that at the end of the preceding crop year.
(3) – Statistics relating to grain deliveries by station, as produced by the Canadian Grain Commission, are generally produced a full six months after the close of the crop year. The most recent statistics available are those from the 2007-08 crop year.

Synopsis – Commercial Relations

One of the objectives of the government's regulatory reforms was to provide the GHTS with a more commercial orientation. To this end, a cornerstone element in the reforms was the introduction, and gradual expansion of tendering for Canadian Wheat Board (CWB) grain shipments to Western Canadian ports. For the 2008-09 crop year, the CWB has once again committed itself to moving 40% of its grain shipments under a new program that combines tendering as well as advance car awards.

The government also expects that industry stakeholders will forge new commercial processes that will ultimately lead to improved accountability. The purpose of this monitoring element is twofold: to track and assess the impact of the CWB's tendering practices as well as the accompanying changes in the commercial relations existing between the various stakeholders within the grain industry.

Highlights – First Quarter 2009-10 Crop Year

Tendering Program

- *61 tender calls were issued by the CWB during the first three months of the 2009-10 crop year.*
  - *Calls for the movement of 0.7 million tonnes to export positions in western Canada.*
    - *Prince Rupert delivery – 45.1%; Thunder Bay – 28.1%; Vancouver – 26.8%; and Churchill – 0.0%.*
- *253 bids received; offered an aggregated 1.4 million tonnes.*
  - *Response rates somewhat more intense than in the 2008-09 crop year.*
    - *Strongest response rates tied to durum and Thunder Bay tender calls.*
- *97 contracts concluded for the movement of 0.6 million tonnes.*
    - *Vancouver – 38.5%; Thunder Bay – 31.3%; Prince Rupert – 30.3%; and Churchill – 0.0%.*
  - *Represented 13.9% of volume shipped by CWB to port positions in Western Canada.*
- *Tenders for 26.1% of the tonnage called either partially, or not at all, filled.*
  - *135,300 tonnes – not required.*
  - *36,300 tonnes – no bid.*
  - *5,500 tonnes – insufficient quantity bid.*
- *Proportion of tendered grain volume moving in multiple car blocks increased marginally to 91.9%.*
  - *Proportion moving in blocks of 50 or more cars increased to 65.7% from 61.9% in the 2008-09 crop year.*
- *97.4% of all tendered movements originated at high-throughput elevators.*
  - *Marginally lower than the 97.7% observed in the 2008-09 crop year.*

Other Commercial Developments

- *First quarter sees the emergence of several significant issues relating to market access for Canadian grain.*
  - *European Union embargoes Canadian imports of flaxseed.*
    - *Follows discovery in processed goods of a genetically modified variety known as Triffid.*
    - *Canadian industry moves to develop protocol for the sampling, testing and documentation of future shipments.*
  - *Discovery of salmonella-contaminated canola meal shipments from Canada leads the United States to impose stricter testing on all cross-border railcar movements.*
    - *Five Canadian crushers placed on US "import alert list."*
    - *Canadian crushers forced to curtail production while seeking alternative markets.*
  - *China demands that all Canadian canola shipments be certified as "black-leg free" by mid November 2009.*
    - *Extends from the view that the Canadian strain is more virulent than the Chinese pathogen.*
    - *Given the size of the Chinese market, the Canadian industry moves quickly to address the issue.*
- *CN moves to close 53 producer-car loading sites in September 2009.*
  - *Prompts a widespread backlash from a number of affected communities and producer groups.*
    - *Spurs calls for federal government intervention, and possible imposition of a moratorium.*
    - *CN responds by agreeing to delay its immediate closure plans.*
- *Complaints about railway service diminish in the face of improvements.*
  - *CTA decision in the level-of-service complaint brought forward by Western Grain Trade Ltd. remains outstanding.*

Indicator Series 2 – Commercial Relations

Table	Indicator Description	Notes	1999-00	2006-07	2007-08	2008-09	2009-10 Q1	Q2	Q3	YTD (1)	% VAR	
	Tendering Program [Subseries 2A]											
2A-1	Tenders Called (000 tonnes) – Grain	(1)	n/a	3,765.1	1,891.2	3,416.2	678.3	-	-	678.3	-13.3%	▼
2A-2	Tenders Called (000 tonnes) – Grade	(1)										
2A-3	Tender Bids (000 tonnes) – Grain	(1)	n/a	6,753.6	4,396.7	5,622.1	1,384.4	-	-	1,384.4	-25.3%	▼
2A-4	Tender Bids (000 tonnes) – Grade	(1)										
2A-5	Total CWB Movements (000 tonnes)	(1)(2)	n/a	14,932.2	13,332.3	15,612.8	4,181.7	-	-	4,181.7	40.1%	▲
2A-5	Tendered Movements (%) – Proportion of Total CWB Movements	(1)(2)	n/a	17.8%	14.3%	14.4%	13.9%	-	-	13.9%	-15.2%	▼
2A-5	Tendered Movements (000 tonnes) – Grain	(1)(2)	n/a	2,651.6	1,900.0	2,246.6	580.9	-	-	580.9	19.0%	▲
2A-6	Tendered Movements (000 tonnes) – Grade	(1)(2)										
2A-7	Unfilled Tender Volumes (000 tonnes)	(1)	n/a	1,276.6	207.9	1,445.3	177.0	-	-	177.0	-24.4%	▼
2A-8	Tendered Movements (000 tonnes) – Not Awarded to Lowest Bidder	(1)	n/a	46.3	18.7	4.9	0.0	-	-	0.0	-100.0%	▼
2A-9	Tendered Movements (000 tonnes) – FOB	(1)(2)	n/a	152.8	65.1	284.9	67.8	-	-	67.8	n/a	▲
2A-9	Tendered Movements (000 tonnes) – In-Store	(1)	n/a	2,651.6	1,835.0	1,961.7	513.0	-	-	513.0	5.3%	▲
2A-10	Distribution of Tendered Movements – Port	(3)										
2A-11	Distribution of Tendered Movements – Railway	(3)										
2A-12	Distribution of Tendered Movements – Multiple-Car Blocks	(3)										
2A-13	Distribution of Tendered Movements – Penalties	(3)										
2A-14	Distribution of Tendered Movements – Province / Elevator Class	(3)										
2A-15	Distribution of Tendered Movements – Month	(3)										
2A-16	Distribution of Tender Delivery Points (number) – Contracted Cars	(3)										
2A-17	Average Tendered Multiple-Car Block Size (railcars) – Port		n/a	64.7	57.5	59.7	61.4	-	-	61.4	2.0%	▲
2A-18	Railway Car Cycle (days) – Tendered Grain		n/a	14.7	13.9	11.8	10.3	-	-	10.3	-9.6%	▼
2A-18	Railway Car Cycle (days) – Non-Tendered Grain		n/a	16.4	15.2	13.0	13.0	-	-	13.0	-15.0%	▼
2A-19	Maximum Accepted Tender Bid ($ per tonne) – Wheat		n/a	-$24.51	-$23.78	-$23.01	-$21.28	-	-	-$21.28	-7.5%	▼
2A-19	Maximum Accepted Tender Bid ($ per tonne) – Durum		n/a	-$21.56	-$10.52	-$14.95	-$21.13	-	-	-$21.13	41.3%	▲
2A-20	Market Share (%) – CWB Grains – Major Grain Companies		n/a	75.6%	74.3%	72.9%	76.3%	-	-	76.3%	0.0%	–
2A-20	Market Share (%) – CWB Grains – Non-Major Grain Companies		n/a	24.4%	25.7%	27.1%	23.7%	-	-	23.7%	0.0%	–
	Advance Car Awards Program [Subseries 2B]											
2B-1	Advance Award Movements (%) – Proportion of Total CWB Movements		n/a	15.8%	13.7%	12.1%	8.3%	-	-	8.3%	-18.6%	▼
2B-1	Advance Award Movements (000 tonnes) – Grain		n/a	2,362.9	1,831.0	1,896.5	348.7	-	-	348.7	14.8%	▲
2B-2	Distribution of Advance Award Movements – Port	(4)										
2B-3	Distribution of Advance Award Movements – Railway	(4)										
2B-4	Distribution of Advance Award Movements – Province / Elevator Class	(4)										
2B-5	Distribution of Advance Award Movements – Month	(4)										
2B-6	Railway Car Cycle (days) – Advance Award Grain		n/a	15.1	14.4	12.2	11.1	-	-	11.1	-24.0%	▼
2B-7	Distribution of Advance Award Movements – Multiple-Car Blocks	(4)										
2B-8	Weighted Average Tendered and Advance Award Multiple-Car Block Size (railcars) – Port		n/a	53.9	52.0	52.5	54.3	-	-	54.3	4.8%	▲

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Tenders Called). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier. Significant variances may be observed as a result of a change in the Canadian Wheat Board's tendering commitment.
(2) – Includes tendered malting barley volumes.
(3) – Indicators 2A-10 through 2A-16 examine tendered movements along a series of different dimensions. This examination is intended to provide greater insight into the movements themselves, and cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.
(4) – Indicators 2B-2 through 2B-5, as well as 2B-7, examine advance car awards movements along a series of different dimensions. This examination is intended to provide greater insight into the movements themselves, and cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.

Synopsis – System Efficiency

One of the chief aims in the government's decision to move the GHTS towards a more commercial orientation was to improve overall system efficiency. This stems from the belief that a more efficient system will ultimately enhance the competitiveness of Canadian grain in international markets to the benefit of all stakeholders.

The indicators presented here are intended to examine the relative change in the efficiency of the GHTS. A preceding chapter – Industry Overview – addressed changes observed in the basic components of the GHTS (country elevators, railways, and terminal elevators). In comparison, the following series of indicators largely concentrates on how these assets are utilized, and the overall time it takes grain to move through the system.

Highlights – First Quarter 2009-10 Crop Year

Trucking

- *Composite Freight Rate Index for short-haul trucking remains unchanged at 132.2 in the first quarter.*
  - *Continued demand for carrying capacity despite reduced fuel costs.*

Country Elevators

- *First quarter throughput decreased by 0.3% to 8.2 million tonnes.*
  - *Heightened CWB grain movement tempered effects of weaker non-CWB grain sales.*
- *The average elevator capacity turnover ratio decreased 2.9% to 1.5 turns over the same period last year.*
  - *Reflected effects of decreased throughput.*
- *Average inventory level increased by 8.5% to 2.8 million tonnes.*
- *Average number of days-in-store increased by 7.8% to 31.9 days.*
- *Average weekly stock-to-shipment ratio increased by 7.1% to 4.5 in the first quarter.*
- *Average posted tariff rates increased in the first quarter.*
  - *Elevation – up by 0.5%.*
  - *Dockage removal – up by 2.7%.*
  - *Storage – up by 6.1%.*

Rail Operations

- *Average car cycle decreased by 18.4% to 12.5 days during the first quarter of the crop year.*
  - *Similar reductions in underlying empty and loaded movements.*
    - *Average empty movement decreased 17.9% to 6.4 days.*
    - *Average loaded movement decreased 18.9% to 6.1 days.*
- *Proportion of grain moving under incentive programs decreased to 72.7% from 78.9% in the 2008-09 crop year.*
- *Railway incentive payments estimated to have increased by 35.8% to $34.2 million in the first quarter.*
  - *Reflected increase in applicable per-tonne discounts.*
- *Single car freight rates show more signs of differentiation in the 2009-10 crop year.*
  - *CP extends the rates in place at the end of the 2008-09 crop year through the first quarter.*
    - *No change to existing structure.*
  - *CN makes substantive changes to prevailing rate structure in the first quarter.*
    - *Vancouver – down by 6.1%; Prince Rupert – down by 3.7%.*
    - *Thunder Bay – up by 1.9%; Churchill – down by 14.3%.*

Terminal Elevators and Port Performance

- *Terminal throughput increased by 15.2% to 6.5 million tonnes during the first quarter.*
- *215 vessels loaded at western Canadian ports during the first three months of the crop year.*
  - *Average time in port increased 71.0% to 5.3 days.*
    - *Largely related to vessels waiting for specific commodities and grades.*
- *Average posted tariff rates increased in the first quarter.*
  - *Elevation – up by 1.0%.*
  - *Storage – up by 1.9%.*

Indicator Series 3 – System Efficiency

Table	Indicator Description	Notes	1999-00	2006-07	2007-08	2008-09	2009-10 Q1	Q2	Q3	YTD (1)	% VAR	
	Trucking [Subseries 3A]											
3A-1	Composite Freight Rate Index – Short-haul Trucking	(2)	100.0	123.2	125.5	132.2	132.2	-	-		0.0%	–
	Primary Country Elevators [Subseries 3B]											
3B-1	Grain Volume Throughput (000 tonnes)	(1)	32,493.9	33,452.6	31,886.4	35,349.1	8,246.5	-	-	8,246.5	-0.3%	–
3B-2	Average Elevator Capacity Turnover Ratio	(1)	4.8	6.5	6.0	6.6	1.5	-	-	1.5	-2.9%	▼
3B-3	Average Weekly Elevator Stock Level (000 tonnes)	(1)	3,699.3	2,814.7	2,705.5	2,686.7	2,830.4	-	-	2,830.4	8.5%	▲
3B-4	Average Days-in-Store (days)	(1)	41.7	30.7	31.1	27.7	31.9	-	-	31.9	7.8%	▲
3B-5	Average Weekly Stock-to-Shipment Ratio – Grain	(1)	6.2	4.5	4.5	3.9	4.5	-	-	4.5	7.1%	▲
3B-6	Average Handling Charges – Country Delivery Points	(3)										
	Rail Operations [Subseries 3C]											
3C-1	Hopper Car Grain Volumes (000 tonnes) – Province	(1)										
3C-2	Hopper Car Grain Volumes (000 tonnes) – Primary Commodities	(1)	25,662.3	23,736.9	22,084.0	26,760.0	7,069.3	-	-	7,069.3	14.3%	▲
3C-3	Hopper Car Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
3C-4	Railway Car Cycle (days) – Empty Movement	(1)	10.7	8.7	7.9	6.6	6.4	-	-	6.4	-17.9%	▼
3C-4	Railway Car Cycle (days) – Loaded Movement	(1)	9.2	8.2	8.0	6.8	6.1	-	-	6.1	-18.9%	▼
3C-4	Railway Car Cycle (days) – Total Movement	(1)	19.9	16.8	15.9	13.4	12.5	-	-	12.5	-18.4%	▼
3C-5	Railway Car Cycle (days) – Non-Special Crops	(1)	19.3	16.6	15.7	13.3	12.3	-	-	12.3	-18.9%	▼
3C-6	Railway Car Cycle (days) – Special Crops	(1)	25.8	20.0	18.1	15.6	14.4	-	-	14.4	-11.6%	▼
3C-7	Railway Car Connections (days)	(1)(3)										
3C-8	Hopper Car Grain Volumes (000 tonnes) – Non-Incentive	(1)	12,716.9	5,888.5	5,149.5	5,650.4	1,930.4	-	-	1,930.4	21.1%	▲
3C-8	Hopper Car Grain Volumes (000 tonnes) – Incentive	(1)	12,945.5	17,848.4	16,934.5	21,109.6	5,138.9	-	-	5,138.9	12.0%	▲
3C-9	Hopper Car Grain Volumes ($ millions) – Incentive Discount Value	(1)	$31.1	$96.5	$93.3	$132.0	$34.2	-	-	$34.2	35.8%	▲
3C-10	Traffic Density (tonnes per route mile) – Grain-Dependent Network	(1)	442.5	418.0	427.5	526.5	634.0	-	-	634.0	23.7%	▲
3C-10	Traffic Density (tonnes per route mile) – Non-Grain-Dependent Network	(1)	292.4	291.5	269.3	334.8	334.8	-	-	334.8	10.6%	▲
3C-10	Traffic Density (tonnes per route mile) – Total Network	(1)	330.3	320.1	303.1	373.4	394.8	-	-	394.8	14.5%	▲
3C-11	Composite Freight Rates ($ per tonne) – Rail	(2)(3)										
3C-12	Multiple-Car Shipment Incentives ($ per tonne) – Rail	(2)(3)										
3C-13	Effective Freight Rates ($ per tonne) – CTA Revenue Cap	(2)(4)	n/a	$29.88	$30.45	$30.92	n/a	n/a	n/a		n/a	–
	Terminal Elevator and Port Performance [Subseries 3D]											
3D-1	Annual Port Throughput (000 tonnes) – Grain	(1)	23,555.5	22,823.9	22,026.4	25,639.0	6,457.0	-	-	6,457.0	15.2%	▲
3D-2	Average Terminal Elevator Capacity Turnover Ratio	(1)(5)	9.1	8.3	8.5	10.0	n/a	n/a	n/a		n/a	–
3D-3	Average Weekly Terminal Elevator Stock Level (000 tonnes)	(1)	1,216.2	1,385.3	1,432.7	1,346.4	1,240.2	-	-	1,240.2	-10.6%	▼
3D-4	Average Days-in-Store – Operating Season (days)	(1)	18.6	19.2	21.0	16.7	18.1	-	-	18.1	-22.0%	▼
3D-5	Average Weekly Stock-to-Shipment Ratio – Grain	(1)(3)										
3D-6	Average Weekly Stock-to-Shipment Ratio – Grade	(1)(3)										
3D-7	Average Vessel Time in Port (days)	(1)	4.3	5.3	5.0	4.6	5.3	-	-	5.3	71.0%	▲
3D-8	Distribution of Vessel Time in Port	(1)(3)										
3D-9	Distribution of Berths per Vessel	(1)(3)										
3D-10	Annual Demurrage Costs ($millions)	(5)	$7.6	$15.1	$23.3	$11.2	n/a	n/a	n/a		n/a	–
3D-10	Annual Dispatch Earnings ($millions)	(5)	$14.5	$24.6	$29.3	$37.6	n/a	n/a	n/a		n/a	–
3D-11	Average Handling Charges – Terminal Elevators	(2)(3)										

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Grain Volume Throughput). The accompanying percentage variance denotes the relative change in the current YTD value compared to the same period a year earlier.
(2) – Quarterly values for non-volume-related indicators (i.e., Composite Freight Rate Index) are "as at" the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period compared to that at the end of the preceding crop year.
(3) – Changes in the indicator cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.
(4) – Statistics relating to effective railway freight rates, as determined by the Canadian Transportation Agency, are generally produced about six months after the close of the crop year. The most recent statistics available are those from the 2008-09 crop year.
(5) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

Synopsis – Service Reliability

The true test of any logistics chain is its ability to provide for the timely delivery of product, as it is needed – whether it is raw materials, semi-processed goods, component parts, or finished products. This applies in equal measure to both industrial and consumer products, and is summarized by a widely used colloquialism within the logistics industry: "to deliver the right product, to the right customer, at the right time." The indicators that follow are largely used to determine whether grain is moving through the system in a timely manner, and whether the right grain is in stock at port when a vessel calls for loading.

Highlights – First Quarter 2009-10 Crop Year

Port Performance

- *Average weekly stock-to-vessel-requirements ratios decline fairly substantially in the first quarter of the 2009-10 crop year.*
  - *Vancouver*
    - *Wheat – 2.1 for the first three months of the 2009-10 crop year, down by 38.2%.*
    - *Canola – 0.5, down by 84.7%.*
  - *Thunder Bay*
    - *Wheat – 8.0 for the first three months of the 2009-10 crop year, up by 43.5%.*
    - *Canola – 2.3, down by 64.2%.*
  - *Reflects strong movement but suggests that grain inventories were largely sufficient to meet short-term demand.*
    - *Shortages of specific grains and grade, especially canola, proved more prevalent.*
- *Average stock-to-shipment ratios provide similar evidence of the ability of these ports to meet short-term demand.*
  - *Vancouver*
    - *CWB grains – 2.5 for the first three months of the 2009-10 crop year, down by 25.0%.*
    - *Non-CWB grains – 1.4, down by 49.9%.*
  - *Thunder Bay*
    - *CWB grains – 5.1 for the first three months of the 2009-10 crop year; up by 15.4%.*
    - *Non-CWB grains – 5.5, up by 1.0%.*

Indicator Series 4 – Service Reliability

Table	Indicator Description	Notes	1999-00	2006-07	2007-08	2008-09	2009-10 Q1	Q2	Q3	YTD (1)	% VAR	
	Port Performance [Subseries 4A]											
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Wheat	(1)	3.1	3.3	3.6	3.2	2.1	-	-	2.1	-38.2%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Canola	(1)	2.5	2.8	3.7	1.5	0.5	-	-	0.5	-84.7%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Wheat	(1)	5.6	7.0	5.0	4.5	8.0	-	-	8.0	43.5%	▲
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Canola	(1)	2.8	5.3	8.3	5.5	2.3	-	-	2.3	-64.2%	▼
4A-2	Avg. Weekly Stock-to-Vessel Requirements Ratio – Grade	(1)(2)										
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – CWB Grains	(1)	3.5	2.9	2.9	3.1	2.5	-	-	2.5	-25.0%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – Non-CWB Grains	(1)	3.6	3.6	3.6	2.5	1.4	-	-	1.4	-49.9%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – CWB Grains	(1)	4.6	6.2	5.2	4.6	5.1	-	-	5.1	15.4%	▲
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – Non-CWB Grains	(1)	3.3	4.4	5.7	4.2	5.5	-	-	5.5	1.0%	▲
4A-4	Terminal Handling Revenue ($millions) – Vancouver	(1)(3)	$192.7	$202.9	$238.7	$284.8	n/a	n/a	n/a		n/a	–
4A-4	Terminal Handling Revenue ($millions) – Thunder Bay	(1)(3)	$82.1	$83.5	$81.2	$84.4	n/a	n/a	n/a		n/a	–
4A-4	CWB Carrying Costs ($millions) – Pacific Seaboard	(1)(3)	$63.3	$93.9	$77.4	$124.9	n/a	n/a	n/a		n/a	–
4A-4	CWB Carrying Costs ($millions) – Thunder Bay	(1)(3)	$31.3	$35.9	$37.6	$45.2	n/a	n/a	n/a		n/a	–

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Average Weekly Stock-to-Vessel Requirements Ratio). The accompanying percentage variance denotes the relative change in the current YTD value compared to the same period a year earlier.
(2) – Changes in the indicator cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.
(3) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

Synopsis – Producer Impact

One of the key objectives of the GMP rests in determining the producer impacts that stem from changes in the GHTS. The principal measure in this regard is the producer netback – an estimation of the financial return to producers after deduction of the "export basis." The methodology employed in calculating these measures was developed following an extensive study conducted as a Supplemental Work Item under the GMP, and approved for incorporation into the mainstream indicators of the GMP by Transport Canada and Agriculture and Agri-Food Canada.

Highlights – First Quarter 2009-10 Crop Year

Export Basis and Producer Netback – CWB Grains

- *Changes in the CWB's Pool Return Outlook (PRO) for 1 CWRS wheat:*
  - *Farmer's initial payment set at $186.30 per tonne.*
    - *Represented a 40.2% decrease from the final realized price for the 2008-09 crop year of $311.36 per tonne.*
  - *PRO decreased to $245.00 per tonne by the end of the first quarter.*
    - *Represented a 31.5% premium to the farmer's initial payment.*
    - *Price declined largely as a result of increased global supplies in the face of weaker overall demand.*
- *Recent changes in input costs:*
  - *Country elevator handling – up by an average of 0.5% for elevation; 2.7% for cleaning.*
    - *Storage charges increased by an average 6.1%.*
  - *Rail transportation – unchanged from CP origins, but largely reduced from CN origins.*
    - *Composite adjustments range from a reduction of about 3% on movements to Vancouver, to an increase of 1% on movements to Thunder Bay.*
  - *Terminal elevator handling – up by an average of 1.0% for elevation; 1.9% for storage.*
- *While changes in the PRO for 1 CWRS wheat, and input costs to the export basis, suggest a reduction in the producer's per-tonne netback for CWB grains in the 2009-10 crop year, these returns are expected to remain above historical standards.*

Export Basis and Producer Netback – Non-CWB Commodities

- *Changes in Vancouver cash price for 1 Canada canola:*
  - *Price fell to an average of $442.21 per tonne for the first quarter of the 2009-10 crop year.*
    - *Represented a 4.9% decrease from the 2008-09 crop year's monthly average of $465.22 per tonne.*
    - *Price declined in response to expectations of ample supplies and the uncertainty surrounding Canadian exports.*
- *Recent changes in input costs:*
  - *Country elevator handling – up by an average of 0.5% for elevation; 2.7% for cleaning.*
    - *Storage charges increased by an average 6.1%.*
  - *Rail transportation – unchanged from CP origins, but largely reduced from CN origins.*
    - *Composite adjustments range from a reduction of about 3% on movements to Vancouver, to an increase of 1% on movements to Thunder Bay.*
  - *Terminal elevator handling – up by an average of 1.0% for elevation; 1.9% for storage.*
- *While changes in the price of 1 Canada canola, and input costs to the export basis, suggest a reduction in the producer's per-tonne netback for non-CWB grains in the 2009-10 crop year, these returns are expected to remain above historical standards.*

Producer-Car Loading

- *Number of producer-car-loading sites declined by 9.2% to 397.*
  - *Resulted from the closure of 40 sites local to CN.*
- *Producer-car shipments decreased by 13.7% to 2,123 railcars in the first quarter.*

Indicator Series 5 – Producer Impact

Table	Indicator Description	Notes	1999-00	2006-07	2007-08	2008-09	2009-10 Q1	Q2	Q3	YTD (1)	% VAR	
	Export Basis											
	Western Canada											
5A-10	CWRS Wheat ($ per tonne)	(1)(3)	$54.58	$63.20	$67.65	$66.74						
5A-10	CWA Durum ($ per tonne)	(1)(3)	$67.63	$76.18	$84.44	$87.57						
5A-10	1 Canada Canola ($ per tonne)	(1)(3)	$52.51	$45.80	$53.47	$48.63						
5A-10	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(1)(3)	$54.76	$62.17	$85.51	$101.57						
	Producer-Car Loading											
5B-1	Producer-Car-Loading Sites (number) – Class 1 Carriers	(2)	415	368	346	333	293	-	-		-12.0%	▼
5B-1	Producer-Car-Loading Sites (number) – Class 2 and 3 Carriers	(2)	122	106	108	104	104	-	-		0.0%	–
5B-1	Producer-Car-Loading Sites (number) – All Carriers	(2)	537	474	454	437	397	-	-		-9.2%	▼
5B-2	Producer-Car Shipments (number) – Covered Hopper Cars	(1)	3,441	12,529	10,729	13,243	2,123	-	-	2,123	-13.7%	▼

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Producer-Car Shipments). The accompanying percentage variance denotes the relative change in the current YTD value compared to the same period a year earlier.
(2) – Quarterly values for non-volume-related indicators (i.e., Producer-Car-Loading Sites) are "as at" the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period compared to that at the end of the preceding crop year.
(3) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

Members of the Quorum Corporation Advisory Board

Mark A. Hemmes
Chairman of the Advisory Board
President, Quorum Corporation
Edmonton, Alberta

J. Marcel Beaulieu
Director – Research and Analysis, Quorum Corporation
Sherwood Park, Alberta

Richard B. Boyd
Senior Vice President, Canadian National Railway Company (retired)
Kelowna, British Columbia

A. Bruce McFadden
Director – Research and Analysis, Quorum Corporation
Edmonton, Alberta

Shelley J. Thompson
President, SJT Solutions
Southey, Saskatchewan

Members of the Quorum Corporation Grain Monitoring Team

Mark Hemmes	President
Marcel Beaulieu	Director – Research and Analysis
Bruce McFadden	Director – Research and Analysis
Vincent Roy	Senior Technical Officer

Corporate Offices

Quorum Corporation
Suite 701, 9707–110 Street
Edmonton, Alberta
T5K 2L9

Telephone: 780 / 447-2111
Fax: 780 / 447-2630

Website: www.quorumcorp.net
Email: info@quorumcorp.net

Additional copies of this report are available for downloading directly from the company's website.

Appendix 1: Program Background

On June 19, 2001, the Government of Canada announced that Quorum Corporation had been selected to serve as the Monitor of Canada's Grain Handling and Transportation System (GHTS). Under its mandate, Quorum Corporation provides the federal government with quarterly and annual reports aimed at measuring the system's performance, as well as assessing the effects arising from the government's two principal reforms, namely:

- The introduction, and gradual expansion of tendered grain movements by the Canadian Wheat Board; and

- The replacement of the maximum rate scale for rail shipments with a cap on the annual revenues that railways can earn from the movement of regulated grain.

In a larger sense, these reforms are expected to alter the commercial relations that have traditionally existed between the primary participants in the GHTS: producers; the Canadian Wheat Board; grain companies; railway companies; and port terminal operators. Using a series of indicators, the government's Grain Monitoring Program (GMP) aims to measure the performance of both the system as a whole, and its constituent parts, as this evolution unfolds. With this in mind, the GMP is designed to reveal whether the movement of grain from the farm gate to lake- and sea-going vessels (i.e., the supply chain) is being done more efficiently and reliably than before.

To this end, the GMP provides for a number of specific performance indicators grouped under five broad series, namely:

- *Series 1 – Industry Overview*
  Measurements relating to annual grain production, traffic flows and changes in the GHTS infrastructure (country and terminal elevators as well as railway lines).

- *Series 2 – Commercial Relations*
  Measurements focusing on the tendering activities of the Canadian Wheat Board as it moves towards a more commercial orientation as well as changes in operating policies and practices related to grain logistics

- *Series 3 – System Efficiency*
  Measurements aimed at gauging the operational efficiency with which grain moves through the logistics chain.

- *Series 4 – Service Reliability*
  Measurements focusing on whether the GHTS provides for the timely delivery of grain to port in response to prevailing market demands.

- *Series 5 – Producer Impact*
  Measurements designed to capture the value to producers from changes in the GHTS, and is focused largely on the calculation of "producer netback."

Appendix 2: Commodities Guide

To assist the reader of the Grain Monitor's reports, the following description of various commodities discussed is provided. These selections are taken from the CGC *Official Grain Grading Guide* – Chapter 27.

Board Grain: Board grains are western grains marketed under the control of the Canadian Wheat Board (CWB). These include western wheat and barley destined for the export market, as well as domestic sales of wheat and barley for human consumption. Domestic feed wheat and domestic feed barley may be sold either on the open market or delivered to the CWB.

Canola: The term "canola" was trademarked in 1978 by the Western Canadian Oilseed Crushers' Association to differentiate the new superior low-erucic acid and low-glucosinolate varieties and their products from older rapeseed varieties.

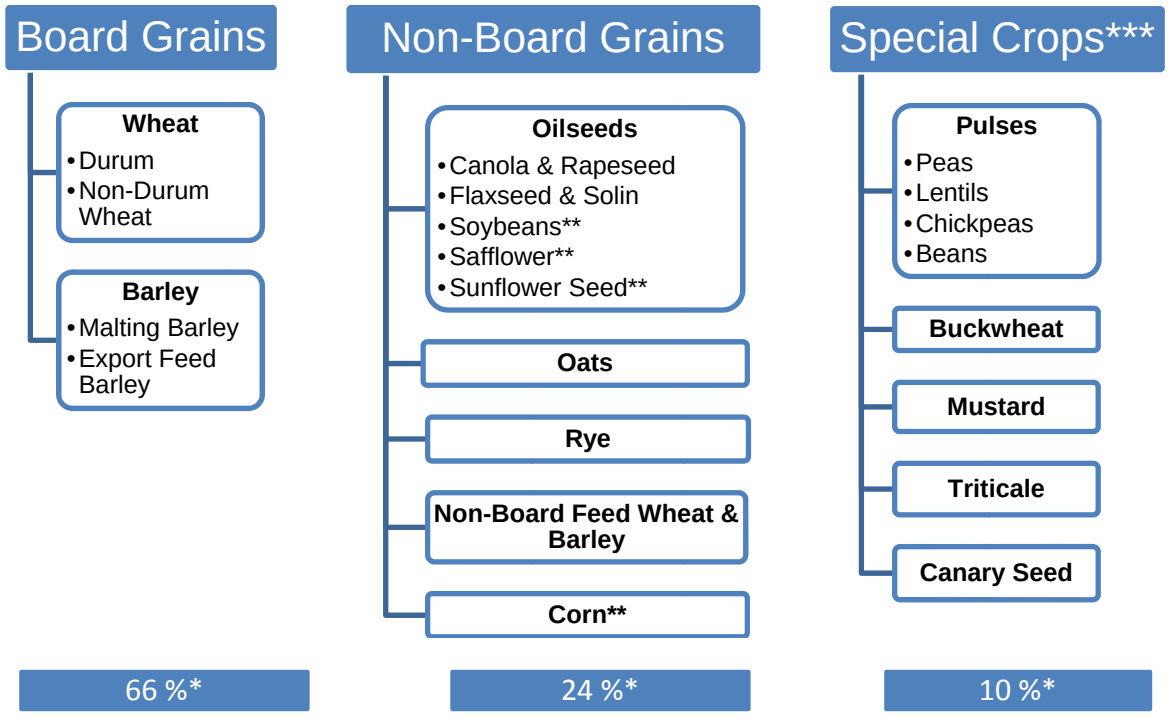
Non-Board Grain: Non-Board grain is grain marketed through the open market system. Such grain includes domestic feed wheat and barley, rye, oilseeds and specialty crops.

Oilseeds: Oilseeds include flaxseed and solin, canola and rapeseed, soybeans, safflower and sunflower seed.

Pulses: Pulses are crops grown for their edible seeds, such as peas, lentils, chick peas or beans.

Screenings: Screenings is dockage material that has been removed by cleaning from a parcel of grain.

Special Crops: Special crops are considered to be beans, buckwheat, chick peas, corn, fababeans, lentils, mustard, peas, safflower, soybeans, sunflower, and triticale.



* Percent of shipments (railway volume) to four western ports in past five years
** Also may be considered special crops
*** Not all special crops as defined by the CGC are included under the umbrella of the Canadian Special Crops Association

Appendix 3: Producer Netback Calculator

A prime issue with many stakeholders is the impact that the shrinking GHTS network has had on the length of truck haul from farm gate to elevator. While all evidence suggests that truck hauls are increasing because of the reduced number of delivery points, the exact – or even approximate – amount of this increase is unknown. Following discussions with stakeholders and the government, a methodology that would allow the Monitor to gather the data necessary to enhance the quality and reliability of this component of the export basis has been developed.[33] The Producer Netback Calculator (PNC) was designed to provide a cost-effective and non-intrusive means of gathering this data.

At the same time, and in response to producers' requests, the Monitor will provide access to data on the costs associated with moving grain from farm-specific locations to export position (the export basis). These costs are the same ones reflected as deductions on cash tickets. The PNC has been designed to assist farmers in determining the delivery options that may provide the best returns for their wheat, durum and feed barley. When these costs are subtracted from the most recent CWB Pool Return Outlook (PRO), the resulting calculation of producer netback provides the best possible estimate of the real returns to be had for their grain.

To gain access to the PNC, producers are provided with their own personal log-in identification and password. Once they have logged into the system, all communication will be secured through 128 bit encryption technology, identical to that used by major banks to allow customers access to their accounts over the internet. This ensures that all information is communicated and held with the strictest confidentiality, while allowing the Monitor to classify data according to the demographics of the specific producer. Producers can be assured that no data specific to any individual will be published, or shared, by Quorum Corporation.

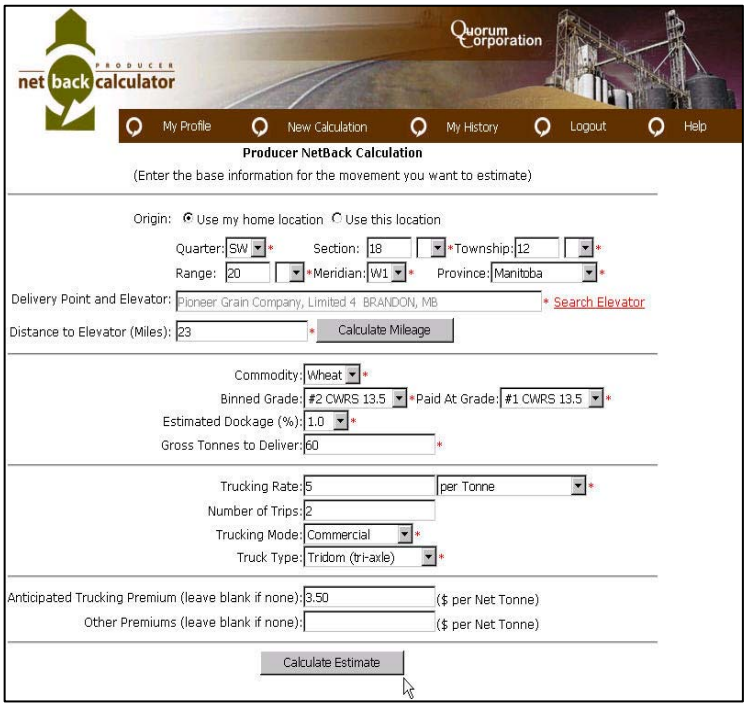


Figure A1: An image of the input screen for Quorum Corporation's Netback Calculator.

Calculation of a producer's estimated export basis and netback is based on the entry of movement-specific information (i.e., delivery point, grain company, grain, grade, etc.). After entering this basic information, the producer can then run a calculation that will return a tabular accounting of the export basis and producer netback based on the PRO. The producer also has the option of "recalculating" these estimates by returning to a previous screen, and changing any of the parameters used in the calculation (i.e., destination station, grain company, etc.).

[33] The GMP currently incorporates trucking costs based on the commercial short-haul trucking rates for an average haul of 40 miles, as presented in Table 3A-1.

Every estimate will be recorded and accessible to the producer through a "history" listing. It is through this screen that producers are given the ability to create comparative reports that can present these estimates – or those they wish to see – in summary or detail. These reports can also be printed or presented as a computer spreadsheet. This is also the section of the system where the producer identifies estimates that subsequently resulted in actual grain movements.

The Grain Monitoring Program will gain valuable data on grain logistics by retaining a record of the individual transactions that pertain to actual deliveries. In specific terms, this data will assist in analyzing the average length of haul to elevators, modal utilization, and other farm gate to elevator delivery issues. This information will be incorporated into the calculation of producer netback in future reports of the Monitor.

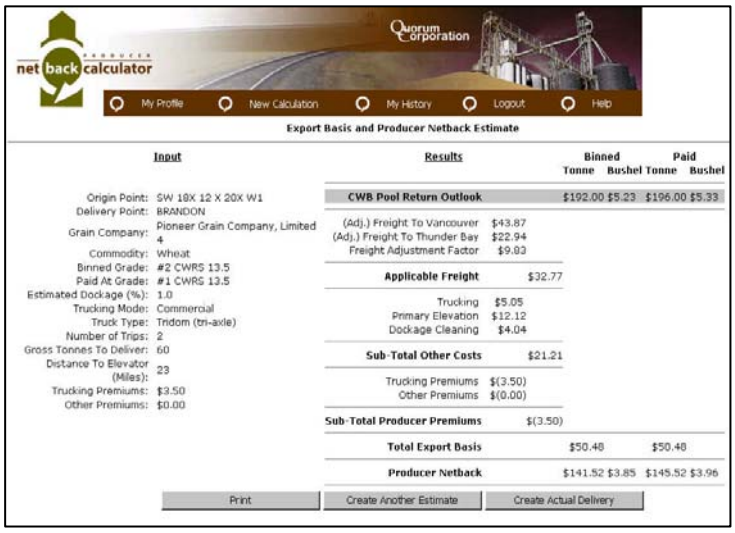


Figure A2: An image of the output screen for Quorum Corporation's Netback Calculator.

Appendix 4: Acknowledgements

The scope of this review is far-reaching and could not have been completed without the assistance of the various stakeholders that submitted views on the detailed monitoring design and provided the data in support of the GMP. Quorum Corporation would like to thank the following organizations, and more particularly the individuals within them, for the cooperation they have extended in our efforts to implement the Grain Monitoring Program. We have come to appreciate not only their cooperation as suppliers of data under the program, but to value their assistance in helping to improve the quality of the program as a whole. We look forward to their continued input and cooperation throughout the duration of the Monitoring Program.

Agricultural Producers Association of Saskatchewan
Agriculture and Agri-Food Canada
Alberta Agriculture, Food and Rural Development
Alberta Infrastructure and Transportation
Alliance Grain Terminal Ltd.
Alliance Pulse Processors Inc.
Canadian Canola Growers Association
Canadian Grain Commission
Canadian Maritime Chamber of Commerce
Canadian National Railway
Canadian Pacific Railway
Canadian Ports Clearance Association
Canadian Ship Owners Association
Canadian Special Crops Association
Canadian Transportation Agency
Canadian Wheat Board
Cando Contracting Ltd.
Cargill Limited
CMI Terminal
Fife Lake Railway Ltd.
Gardiner Dam Terminal
Government of British Columbia
Grain Growers of Canada
Great Sandhills Terminal
Great Western Railway Ltd.
ICE Futures Canada, Inc.
Inland Terminal Association of Canada
Keystone Agricultural Producers
Kinder Morgan Canada
Louis Dreyfus Canada Ltd.
Manitoba Agriculture, Food and Rural Initiatives
Manitoba Infrastructure and Transportation
Mission Terminal Inc.
National Farmers Union
North East Terminal Ltd.
North West Terminal Ltd.
OmniTRAX Canada, Inc.
Parrish & Heimbecker Ltd.
Paterson Grain
Port of Churchill
Port of Prince Rupert
Port of Thunder Bay
Port of Vancouver
Prairie West Terminal
Prince Rupert Grain Ltd.
Red Coat Road and Rail Ltd.
Richardson Pioneer Ltd.
Saskatchewan Agriculture and Food
Saskatchewan Highways and Transportation
Saskatchewan Association of Rural Municipalities
South West Terminal
Statistics Canada
Transport Canada
Viterra Inc.
West Central Road and Rail Ltd.
Western Barley Growers Association
Western Canadian Wheat Growers Association
Western Grain By-Products Storage Ltd.
Western Grain Elevator Association
Weyburn Inland Terminal Ltd.
Wild Rose Agricultural Producers