



## Monitoring the Canadian Grain Handling and Transportation System

**Second Quarter**  
**2004-2005 Crop Year**

# 1 Summary Report



Government  
of Canada

Gouvernement  
du Canada

Quorum  
Corporation



## **Foreword**

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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 six-month period ended 31 January 2005. 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 half of the 2004-05 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 2003-04 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](http://www.quorumcorp.net)).

**QUORUM CORPORATION**  
Edmonton, Alberta

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## **Findings**

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The 2004-05 crop year is proving to be one of considerable challenge to many of the stakeholders in Canada's Grain Handling and Transportation System (GHTS). Cool weather during the growing season resulted in a late harvest, which reduced supplies of high-quality spring wheat, durum and barley. The proportion of the spring wheat and durum crops falling into the top two grades was expected to be the lowest in over ten years. At the same time, other grain-producing nations produced record volumes with which Canadian grains had to compete in world markets.

### **1.0 Industry Overview**

#### **1.1 Grain Production and Supply**

Overall grain production for the 2004-05 crop year climbed to 53.4 million tonnes, an increase of 12.1% over that of the 2003-04 crop year. This marked the first time since the beginning of the Grain Monitoring Program (GMP) that western Canadian grain production returned to what could be considered a near-normal level.<sup>1</sup>

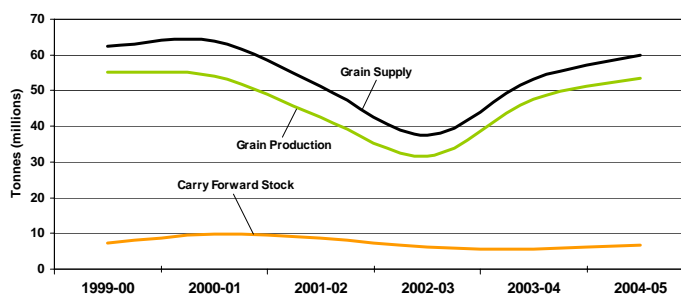
In conjunction with 6.6 million tonnes in carry-forward stocks, the overall volume of grain available for movement during the 2004-05 crop year totalled 60.0 million tonnes, 6.9 million tonnes (or 13.0%) more than was the case a year earlier. Despite this increase in the overall grain supply, grain quality was greatly reduced as a result of an unusually cool growing season, a very early frost and excessively wet harvesting weather.

Canada's traditional ability to cater to that portion of the export market seeking higher-quality grain was adversely impacted by their reduced availability in the first quarter. To an extent, this was reflected in some of the GMP's statistics for the period. Owing to the late harvest, existing elevator stocks were quickly drawn down in order to meet the demand for premium export grades. This significantly reduced average elevator storage times, and greatly accelerated the movement of available grain through the GHTS during this period.

To an extent, the representative difficulties involved in securing sufficient quantities of high-grade wheat to meet the needs of Canada's best customers while still marketing a generally poorer-quality crop were reflected in a 5.6% decline in railway grain shipments during the first quarter, which fell to 5.5 million tonnes from 5.8 million tonnes in the same period a year earlier. Moreover, this challenge was exemplified by the dramatic swing in monthly grain shipments. Although grain movements in August 2004 had exceeded those of August 2003 by 8.8%, September's shipments fell off by 23.4% from that of the same period a year earlier, before then rebounding to a comparable volume for October. The scope of these swings suggest that the greatest difficulty in securing grain for movement came in September, a time when delayed harvesting and diminishing stocks presented the most acute problems for the GHTS.

A year-over-year increase of 12.1% in the volume of grain shipped during the second quarter served to indicate that these problems had largely been overcome. Still, in January 2005 the CWB took the unusual step of moving 7,800 tonnes of wheat (primarily 1 CWRS) from Churchill to Vancouver in order to meet its outstanding

**Figure 1: Western Canadian Grain Supply**



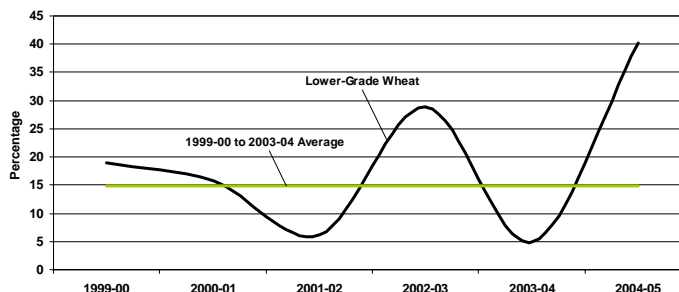
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<sup>1</sup> Grain production in the first two years of the GMP, namely the 1999-2000 and 2000-01 crop years, amounted to an annual average of 54.6 million tonnes. The 53.4 million tonnes of grain produced in the 2004-05 crop year fell only 2.2% below this value.

sales commitments. Although the CWB indicated that the move was commercially justified, some producer groups criticized the additional shipping and handling costs that would ultimately have to be borne by farmers.<sup>2</sup>

On a year-to-date basis, overall railway grain shipments for the first half of the 2004-05 crop year actually climbed by 2.0%, to 10.4 million tonnes from 10.2 million tonnes. Despite having to contend with the reduction in high-quality grain supplies, such volumes indicate that the grain industry was successfully adapting to the realities of marketing a wider range of grades. In the case of the Canadian Wheat Board (CWB), the heavier concentration of wheat at or below a grade of 3 CWRS meant that they had to re-enter a market segment that had largely been ceded to other producing nations.

Figure 2: Lower-Quality Wheat Shipments (percentage of total tonnage)



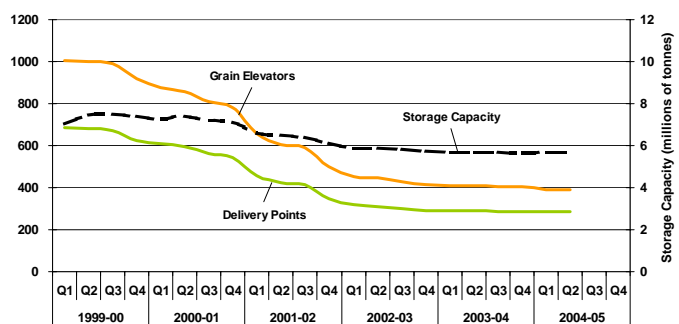
In comparatively good years, lower-quality grades made up a relatively small proportion of western Canadian wheat shipments, amounting to as little as 6% in the 2003-04 crop year. Still, grain quality does fluctuate from year to year, and in the 2002-03 crop year the proportion of lower-quality grains represented almost 30%.<sup>3</sup> Data collected under the GMP from the Canadian Grain Commission suggests that this proportion might well exceed 40% in the 2004-05 crop year.

## 1.2 Country Elevator Infrastructure

As outlined in the Monitor's previous reports, although the country elevator network continues to be rationalized, the pace of the restructuring has abated significantly. In fact, the second quarter became the first such interval under the GMP not to have registered a change in the physical make-up of the network. Still, changes effected in the first quarter reduced the total number of licensed elevators to 390 in the first six months of the 2004-05 crop year, a net reduction of 14 facilities (or 3.5%) from the 404 in place at the end of the previous crop year. This leaves only 38.8% of the 1,004 elevators that were in place at the beginning of the GMP.

The decline in elevator facilities has been accompanied by a similar reduction in the number of grain delivery points at which they were located. During the first six months of the 2004-05 crop year, the number of grain delivery points fell by just 1.4% (or four in total) to 284.

Figure 3: Grain Delivery Points, Licensed Elevators, and Licensed Elevator Storage Capacity



As with the elevator infrastructure itself, the delivery points that remained constituted just 41.5% of the 685 that were in place at the beginning of the GMP. Even so, the grain gathered at these points was not evenly distributed as a result of the increasing sway of high-throughput elevators. Rather, grain deliveries were

<sup>2</sup> The repositioning of high-quality wheat stocks from Baie-Comeau, Quebec, upstream to Montreal during the second quarter also received similar criticism.

<sup>3</sup> Over the course of the first five years of the GMP, the proportion of total wheat shipments comprised of lower-quality grades amounted to an average of 14.9%.



concentrated, with about one-third (or 95) of all delivery points accounting for 80% of total grain receipts in the 2003-04 crop year.<sup>4</sup>

When contrasted with the decline in the number of elevators and delivery points, the reduction in country elevator storage capacity has not been as dramatic. This was because the focus in elevator rationalization has been on removing the smaller, lower-capacity facilities rather than their high-throughput counterparts. As such, the 1.3-million-tonne reduction in storage capacity recorded during the GMP's first five years resulted in an overall decline of just 19.0%, which fell from 7.0 million tonnes to 5.7 million tonnes. Still, an expansion in high-throughput storage capacity during the first half of the 2004-05 crop year more than offset the reduction that arose from the closure of smaller facilities. This resulted in a modest 25,000-tonne (or 0.4%) net increase that rolled back the accumulated decline since the beginning of the GMP to 18.7%.

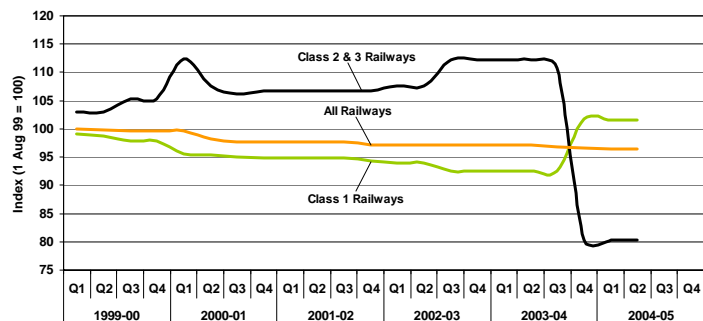
These now well-established patterns continue to show that the GHTS elevator network is evolving into a system of large facilities, with increased storage capacities and the ability to load railcars in much greater numbers. It is worth noting that while only 11.9% of the system's elevators were able to load 50 or more railcars at a time when the GMP began, that proportion had almost quadrupled by the end of the first half of the 2004-05 crop year to 44.1%.

### 1.3 Railway Infrastructure

As outlined in the Monitor's previous reports, total railway infrastructure in western Canada has only changed modestly since the beginning of the GMP. By the end of the 2003-04 crop year, the network had been reduced by 3.3% to a total of 18,822.7 route-miles of track. This, however, did not mean that the network had not changed in other ways. Throughout this period, Canadian National (CN) and Canadian Pacific (CP) continued to transfer a number of their prairie branch line operations to a variety of new shortline railways. This practice, which began in the mid 1990s, was the cornerstone of an industry restructuring that gave control over almost one-third of the railway network in western Canada to a collection of smaller regional and shortline carriers.

A major turnabout in this practice came in the closing days of the 2003-04 crop year when CN acquired BC Rail, a regional carrier with operations extending over a 1,419.8-route-mile network. This transaction resulted in a significant realignment of the railway infrastructure in western Canada. Specifically, more than one quarter of the infrastructure that had been operated by the industry's smaller carriers was taken over by a larger Class 1 railway. By the end of the 2003-04 crop year, CN and CP directly managed a total of 15,098.7 route-miles of track, which constituted a net gain of 1.8% over the 14,827.9 route-miles controlled since the beginning of the GMP. In this same period, the network that had been operated by western Canada's Class 2 and 3 carriers declined by 19.7%, from 4,640.3 route-miles to 3,724.0 route-miles.

Figure 4: Relative Change in Railway Infrastructure



From the vantage point of the GHTS, CN's acquisition of BC Rail proved significantly less dramatic since only a very small amount of export grain moved from the British Columbia interior. During the first six months of the 2004-05 crop year, a total of just under 1,500 carloads (134,000 tonnes) of grain were moved from the Fort St. John and Dawson Creek areas. And although these movements will now be factored into the calculation of the revenue cap and statutory grain revenues for CN, they only constituted about one percent of the total volume moved by rail during this period.<sup>5</sup>

<sup>4</sup> The most recent statistics available for grain deliveries by station are those from the 2003-04 crop year.

<sup>5</sup> As a consequence of the CN acquisition, the operations of the former BC Rail – which had been provincially regulated – now come under the jurisdiction of the Canadian Transportation Agency and the *Canada Transportation Act*. As such, the revenue cap now applies to the movement of grain from former BC Rail points to the four ports in western Canada.

In addition, WestCan Rail Ltd. of Abbotsford, British Columbia, completed the sale of its Great Western Railway, a shortline operation extending over a 329.1-route-mile network of grain-dependent branch lines in southwestern Saskatchewan, early in the second quarter. Faced with mounting financial losses, the company had announced late in 2003 that it intended to either sell the operation or abandon it entirely.

In response, a group of concerned area farmers mounted an effort to purchase the railway, and over the course of the next several months, successfully raised over \$4.0 million in capital through the sale of shares to local individuals, organizations and governments. In addition, the group secured a 15-year, \$1.7 million loan from the province of Saskatchewan's Short Line Railway Financial Assistance Program. The acquisition of the GWR marked the first instance in western Canada where the railway's principal users also became its owners.<sup>6</sup> This vertical integration of shipper and carrier operations denoted a significant advancement of the model often put forward by producers as a means of preserving railway service to their communities.

A total of 43.2 route-miles were removed from the western Canadian network in the first six months, and in fact all in the first quarter of the 2004-05 crop year. This was achieved when CP abandoned a section of its Burstall subdivision in southwest Saskatchewan in August 2004.<sup>7</sup> This constituted a mere 0.2% reduction in the network that had been in place at the close of the preceding crop year, leaving a network comprised of 18,779.5 route-miles, and enlarged the scope of the reductions made since the beginning of the GMP to 3.5%. The modest nature of this change continues to contrast sharply against that of licensed elevators, which as already mentioned, fell by 61.2% in the same period.

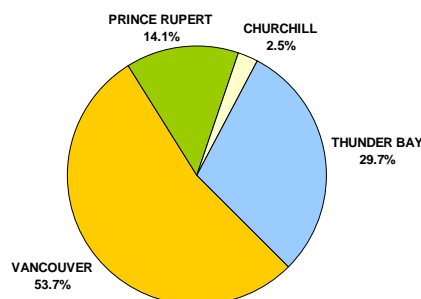
CP also indicated its intention to abandon sections of its Arborg and White Fox subdivisions by adding them to its Three-Year Network Plan. CP deemed these two grain-dependent branch lines as no longer commercially viable due to the closure of local grain elevators in recent years, and the resultant decline in traffic volume.<sup>8</sup>

#### 1.4 Terminal Elevator Infrastructure

Figure 5: Terminal Elevator Unloads – Port

No changes to the licensed terminal elevator network in western Canada were recorded during the first half of the 2004-05 crop year. At the close of the second quarter, the network comprised a total of 16 facilities with an associated storage capacity of 2.6 million tonnes.

A total of 108,741 carloads of grain were unloaded at these facilities during the first six months of the 2004-05 crop year. This was virtually unchanged from the 109,116 handled during the same period a year earlier. The port of Vancouver was the



<sup>6</sup> Local producers, organizations and municipalities have taken the lead in establishing shortline railway operations on branch lines slated for abandonment before. The creation of Red Coat Road and Rail in 1999, the Wheatland Railway in 2002, and the Prairie Alliance for the Future in 2003, all represent such instances. The distinction to be made in the case of the GWR, is that the purchaser acquired the physical assets and operations of an existing shortline railway outright.

<sup>7</sup> The portion of the Burstall subdivision abandoned by CP in August 2004 had been identified as an abandonment candidate by the carrier, and added to its Three-Year Network Plan, in 2001. The Three-Year Network Plan is a legally prescribed listing of all railway lines that a federally-regulated carrier plans to either operate, convey or abandon over the course of the ensuing three years.

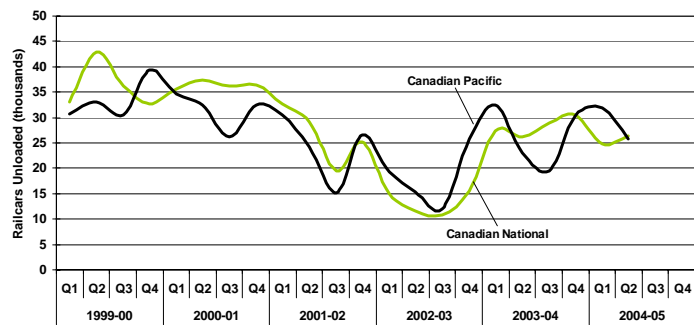
<sup>8</sup> Service on CP's White Fox subdivision had been criticized by a group of farmers in northeast Saskatchewan, who launched a formal level-of-service complaint with the Canadian Transportation Agency (CTA) early in the 2003-04 crop year. The complaint centred on an alleged failure by the carrier to supply cars for producer loading at three specific locations along the White Fox subdivision. CP had de-listed these sites at the end of the 2002-03 crop year due to declining volumes, suggesting instead that producer-car loading could easily be accommodated at Nipawin. Following mediation efforts by the CTA, CP reportedly committed itself to servicing two of the sites through to the end of the 2003-04 crop year as long as producers respected a 25-car minimum loading requirement. In light of the fact that local farmers had shipped slightly more than 100 producer cars off the line in the latter months of the 2003-04 crop year, there were early indications that a purchase effort aimed at converting the line to a new shortline operation might be attempted.

largest handler, accounting for 53.7% of the railcars unloaded. This was in turn followed at a distance by Thunder Bay with 29.7% of the total unloaded; Prince Rupert with 14.1%; and Churchill with 2.5%.

With 52.9% of the originated volume, CP was the largest handler of export grain in western Canada. Even so, the carrier's share of the second quarter's unloads were noticeably lower than that of the first, 49.5% versus 56.1% respectively.

To a large extent the higher share garnered by CP in the first quarter came as a result of the late harvest, and the fact that much of the crop first came off the field in southern Alberta and Saskatchewan, an area served principally by CP. Although the record is somewhat mixed, CP has often outpaced CN's quarterly handlings since the 2002-03 crop year. In large part, this can also be explained by a distribution in crop production that has tended to benefit CP rather than CN in recent years. Even so, changes to the incentive programs offered by the railways may also have had a bearing on the carrier selected for use by some of the larger grain companies.<sup>9</sup>

**Figure 6: Terminal Elevator Unloads – Railway Carrier**



<sup>9</sup> The scope of the changes made by CN and CP to their incentive programs is outlined in section 3.22.

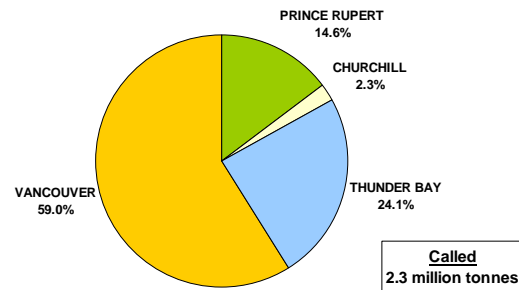
## 2.0 Commercial Relations

### 2.1 Tendering Program

Following the changes implemented in the preceding crop year, the CWB committed itself to a second year of moving a fixed 40% of its overall grain movements to the four ports in western Canada using its tendering and advance car awards programs. Under the terms of this commitment, the CWB could tender up to a maximum of 20% of this overall volume in the 2004-05 crop year.

In the first half of the 2004-05 crop year the CWB issued 155 tenders calling for the movement of just over 2.3 million tonnes of grain. As in previous crop years, the most substantive portion of these calls, 77.8%, related to the movement of wheat. A further 16.6% was consigned to the delivery of durum, and the remaining 5.6% to barley. The port of Vancouver remained the principal export gateway, with over half of the tonnage, 59.0%, having specified delivery there. This marked a further gain in the port's allocation, which amounted to 41.7% in the 2003-04 crop year. Thunder Bay followed with a 24.1% allocation, Prince Rupert with 14.6%, and Churchill with 2.3%.

Figure 7: Tendered Grain – Volume Called through 31 January 2005

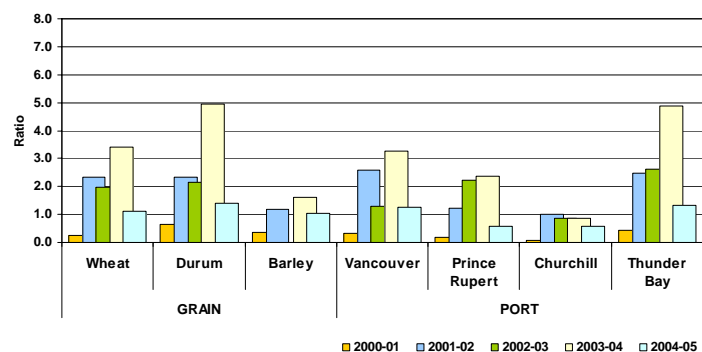


The resurgence of Vancouver came chiefly at the expense of the port of Prince Rupert, which saw its share of the CWB's tender calls fall significantly from the 24.1% it had been accorded in the 2003-04 crop year. This constituted a sharp reversal of the trend that had provided Prince Rupert with a steadily increasing share of the tendered grain volume intended for movement to the west coast. Such a reversal appeared to reflect a fundamental shift in the CWB's shipping decisions owing to poorer grain quality in the 2004-05 crop year. The evidence suggests that, given tight supplies, the CWB found it advantageous to concentrate high-quality wheat in Vancouver in order to better service key international customers such as Japan, and that its tendering program presented a useful mechanism by which to accomplish this.

Another noteworthy change adopted by the CWB for the 2004-05 crop year involved the issuance of more tenders that would better allow for shipments to move in blocks of 56 and 112 railcars. This was instituted in order to address a structural inconsistency that existed between the CWB's tendering program and CP's multiple-car block incentive program. In improving the alignment between these two programs, shippers served by CP would be better positioned to maximize the incentive discounts they could earn from the handling of tendered grain.

The calls issued by the CWB were met by 483 tender bids offering to move an aggregated 2.7 million tonnes of grain. The scope of the offering stands in sharp contrast to that witnessed previously. In general terms, the first half's bidding proved significantly less intense than in any of the three preceding crop years. Using the ratio of tonnage-bid to tonnage-called to measure grain company reaction, a broad reduction in the response rates of the bidders was observed. Durum showed the steepest relative decline in the response rates tied to individual grains, its ratio having fallen by 71.6% to 1.4 as

Figure 8: Tendered Volume – Ratio of Tonnage Bid to Tonnage Called

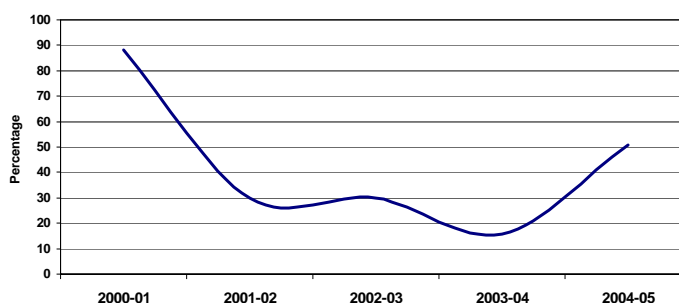


compared to 4.9 for the previous crop year as a whole. Comparatively, the ratio for wheat fell by a somewhat lesser 67.3%, to 1.1 from 3.4 the year before. Similarly, the response rate for barley also fell, albeit by a far less dramatic 36.6%, to a ratio of 1.0 from 1.6.

When the response rate was examined against the port specified in the tender call, pronounced shifts were equally evident. In particular, the ratio associated with grain intended for delivery to Prince Rupert fell by 75.2%, from 2.4 in the previous crop year to just 0.6 in the first half. The response rate on movements to Thunder Bay fell by an almost equally hard 73.1%, while those specifying Vancouver fell by 61.5%. In comparison, the ratio for Churchill declined by a much lesser 31.9%, from 0.9 to 0.6, over the same time horizon.

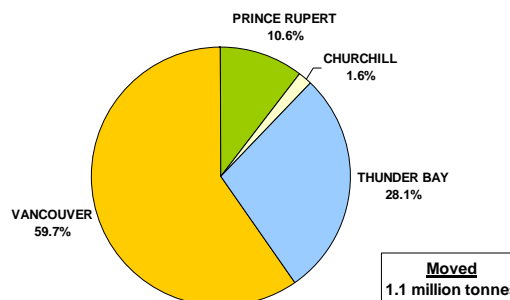
In large part, these lower response rates simply reflected the reality that high-quality wheat and durum were in tight supply, and that grain companies could not always secure the volumes needed to meet the specifications set out in the tender call. The difficulty experienced by the industry at large was also mirrored in the proportion of tenders that went unfilled in the first half, specifically 50.7%. This value was well in excess of the 15.7% recorded for the 2003-04 crop year as a whole. Furthermore, the proportion actually climbed to 66.4% in the second quarter, a level not seen since the 2000-01 crop year.<sup>10</sup>

**Figure 9: Proportion of Total Tonnage Called Not Moved**



Similarly, the difficulties encountered in securing adequate quantities of the grades specified in the tender calls were evident in the bids put forward by the grain companies and ultimately accepted by the CWB.<sup>11</sup> While the discounts inherent in these bids declined in comparison to those advanced a year earlier, there were also instances where the accepted bid actually required the CWB to pay a premium in order to get high-quality grain into position for export.<sup>12</sup> The acceptance of such bids, which in the case of at least one wheat contract required the payment of a \$10.00-per-tonne premium, marked a significant turnabout in a CWB policy that had largely rejected these bids beforehand.

**Figure 10: Tendered Grain – Volume Moved through 31 January 2005**



During the first six months of the 2004-05 crop year, the CWB awarded a total of 193 contracts for the movement of an aggregated 1.1 million tonnes of grain.<sup>13</sup> This represented a reduction of 2.6% from the volume handled in the same period a year earlier. Mirroring the destinations specified in the tender calls, the largest proportion of the grain shipped under

<sup>10</sup> Owing to a general lack of industry participation in the first year of the CWB's tendering program, 88.2% of the tonnage for which tender calls had been issued went unfilled in the 2000-01 crop year.

<sup>11</sup> The tender bids advanced by the grain companies are typically expressed as a discount to the CWB's Initial Payment.

<sup>12</sup> The maximum accepted discounts advanced as tender bids for both wheat and durum during the first half of the 2004-05 crop year reached \$21.86 per tonne and \$19.01 per tonne respectively. The maximums reached in the 2003-04 crop year were \$23.04 per tonne for wheat, and \$24.07 per tonne for durum.

<sup>13</sup> The volumes cited as moving under the CWB's tendering program also include some 43,200 tonnes of malting barley, which is administered under a separate program by the CWB.

tender, 59.7%, was sent to the port of Vancouver. Thunder Bay, Prince Rupert and Churchill followed in turn with shares of 28.1%, 10.6% and 1.6% respectively.

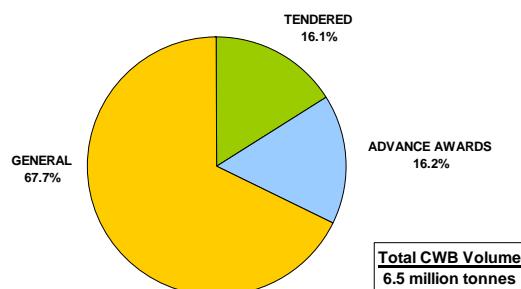
As observed previously by the Monitor, the vast majority of the grain that moved under the CWB's tendering program did so in blocks of 25 or more railcars. For the first half of the 2004-05 crop year, 89.5% of the tendered grain volume moved in such numbers. This proportion proved to be only marginally below the 94.3% recorded for the entire 2003-04 crop year. In addition, the proportion of shipments made in blocks of 50 or more cars fell marginally, to 67.6% from 70.7% the year before. Movements in blocks of 50-99 cars continued to be the most popular, and comprised 56.6% of the tonnage shipped under tender in the first half, compared to 55.1% for the 2003-04 crop year as a whole.

These usage rates are consistent with the parallel observation that high-throughput elevators are the leading originators of tendered grain shipments. During the first half, 84.3% of the tendered tonnage was shipped from these larger facilities. This proportion is essentially unchanged from the 86.2% it constituted in the previous crop year, and is only marginally greater than those recorded in either the 2001-02 or 2002-03 crop years.<sup>14</sup>

In terms of originating carriers, CP proved to be the largest handler of tendered grain in the first half. With 60.1% of the volume, it easily outdistanced CN's 39.9% share. Even so, CP's share in the second quarter fell sharply, to 43.4% from 68.8% in the first quarter. To a large extent the first quarter's elevated share appears to have been a by-product of the late harvest and the fact that much of the crop first came off the field in southern Alberta and Saskatchewan. With much of this area served by CP, the carrier appeared to have earned a disproportionately greater share of the early tendered movement than did CN. The situation was effectively reversed in the second quarter after harvesting had gravitated northward into CN territory.

In aggregate, the grain volume moved under tender by the CWB in the first half of the 2004-05 crop year represented 16.1% of its overall movement to western Canadian ports. Although the volume of tendered grain handled during this period was marginally lower than that of the same period a year earlier, the CWB's reported Transportation Savings fell by a disproportionate 34.0%, to \$12.6 million from \$19.1 million.<sup>15</sup> Undoubtedly, the reduced discounts put forward by grain companies in their tender bids were key elements in this reduction. Moreover, given prevailing market conditions, there are strong indications that this will continue to be the case throughout the remainder of the 2004-05 crop year.

**Figure 11: Western Canadian CWB Grain Volumes**



## 2.2 Advance Car Awards Program

With the beginning of the 2004-05 crop year, the CWB's advance car awards program entered its second year of operation. A total of 1.1 million tonnes of grain was moved under this program in the first half. This constituted 16.2% of the total grain tonnage shipped by the CWB to western Canadian ports during this period.

When combined with the 1.1 million tonnes that moved under the tendering program, the aggregate volume represented 32.3% of the CWB's total tonnage. Although this proportion fell short of its 40% commitment by

<sup>14</sup> The proportion of tendered grain originated at high-throughput elevators in the 2001-02 and 2002-03 crop years amounted to 83.4% and 83.0% respectively. Although the 2000-01 crop year saw 90.3% of the tendered grain volume moved from these facilities, the limited activity recorded during the initial year of the CWB's tendering program makes any comparison unfair.

<sup>15</sup> 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.

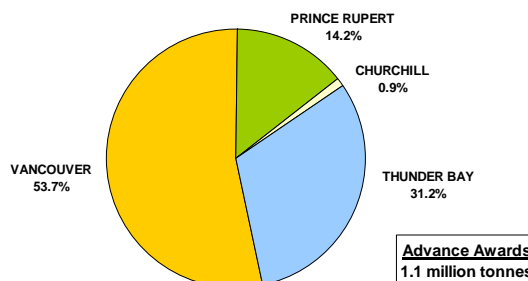


almost one-fifth, the result was largely the product of environmental influences well beyond the immediate control of the CWB.

Even so, the composition of the grain shipped under the CWB's advance car awards program continued to display characteristics similar to that of grain moved under its tendering program. As was the case in this latter program, wheat represented the principle grain moved under the advance car awards program. In aggregate, it accounted for 0.9 million tonnes and 86.6% of the total volume. Another 0.1 million tonnes, chiefly comprised of durum, made up the remaining 13.4% of the total volume.<sup>16</sup>

Similarly, the largest portion of the volume moved under the advance car awards program, almost 0.6 million tonnes (or 53.7%), was destined to the port of Vancouver. This was followed in turn by Thunder Bay with shipments totalling 0.3 million tonnes (or 31.2%); Prince Rupert with 150,000 tonnes (or 14.2%); and Churchill with 10,100 tonnes (or 0.9%).

**Figure 12: Advance Car Awards – Destination Port**



In addition, the vast majority of the grain that moved under the advance car awards program, 83.6%, originated at high-throughput elevators. This was only marginally below the 84.3% already cited for tendered grain shipments. And like tendered grain, CP also commanded the largest share of the grain moved under the advance car awards program, although this 56.0% share proved marginally less than the 60.1% share the carrier secured in moving tendered grain.

Still, when compared to tendered shipments, a lesser proportion of the grain that moved under the advance car awards program qualified for the incentive discounts offered by the railways. This was because a larger proportion of the cars allocated under the advance car awards program went to smaller conventional elevators, which effectively expanded the share of shipments made in blocks of less than 50 cars. At the same time, the major grain companies often used equipment allocated through the advance car awards program to supplement tendered grain shipments that did not meet the thresholds for movement in trainload lots of 100 or 112 cars. As a result, 78.0% of the aggregate grain volume shipped under both programs in the first half moved in blocks of 25 or more railcars. This was somewhat less than the 89.5% recorded for tendered grain alone. Similarly, the overall average size of the block used amounted to 45.5 cars as compared to the tendering program's average of 55.4 cars.

## 2.3 Other Commercial Developments

### 2.31 Potential Sale of Government-Owned Hopper Cars

Between 1972 and 1986, the federal government spent approximately \$570M to purchase some 13,000 covered hopper cars for use in the movement of western Canadian grain. These, and another 6,000 publicly supplied covered hopper cars, are provided to CN and CP under operating agreements that allow for their use as part of the carriers' general grain fleet.<sup>17</sup>

<sup>16</sup> Data gathered for the first half of the 2004-05 crop year indicates that almost 1,800 tonnes of barley was also moved under the advance car awards program. This, however, has been deemed too small an amount to warrant specific mention in the general discussion presented here.

<sup>17</sup> Over time, attrition has diminished the number of covered hopper cars still in the federal government's fleet. By the end of the 2003-04 crop year an estimated 12,400 cars remained. In addition, this fleet had at one time also been supplemented by another 2,000 cars owned by the CWB; 2,000 cars administered by the CWB on leases paid by the federal government; 1,000 cars owned by the government of Alberta, and 1,000 cars owned by the Saskatchewan Grain Car Corporation. Although these cars have also been reduced through attrition, a combined publicly-owned fleet of about 19,000 covered hopper cars had at one time been directed towards the movement of western Canadian grain.

While both railway companies supplement these cars with their own equipment in order to meet prevailing market demands, the public fleet remains the principal asset employed in moving grain through the GHTS. As a result, the deployment of these cars has always been an important matter to stakeholders. The general availability of these cars, as well as the mechanisms used to secure their use at any particular moment in time, has always figured prominently in discussions focusing on potential changes to the GHTS.

When the railways' right of first refusal in any potential sale of these cars expired on 30 June 2002, other groups expressed interest in acquiring them.<sup>18</sup> One in particular, a producer-backed organization called the Farmer Rail Car Coalition (FRCC), championed a plan that called for ownership to be transferred to a non-profit, farmer-owned company for a nominal sum. Although in the months that followed, the government indicated it had made no decision with respect to how it would dispose of the fleet, it acknowledged that the FRCC's plan represented one possible alternative. Other options, which ranged from the maintenance of the status quo to a public auctioning of the cars, were also being given consideration. Still, by the spring of 2004 the federal government was widely reported to be wrestling with a choice between selling the cars to the highest bidder or turning them over to the FRCC.

Against this backdrop, many of the contrasting perspectives that had framed earlier discussions over a potential sale of the cars were revived. Many stakeholders expressed scepticism over the FRCC's plan given the limited detail they say was provided by the organization during its efforts to promote it. Some maintained that auctioning the cars to the highest bidder remained the only fair means of dealing with the issue, while others proved equally wary of this approach as well. At the same time, some stakeholders urged the government to either maintain the status quo or, at the very least, make the process more transparent. In the case of the railways, CN offered to purchase its share of the cars at fair market value, while CP advocated that the government maintain ownership but lease the cars back to the railways under a new operating agreement.

As this unfolded, the government moved forward with its preparations for a possible transfer of ownership and commissioned a detailed mechanical inspection of the cars.<sup>19</sup> At the same time, the House of Commons Standing Committee for Agriculture and Agri-Food opened hearings into the disposal options available. In addition, the federal Minister of Transport also got to hear the industry's concerns firsthand when he met with interested stakeholders to discuss the various issues that had been raised in advance of taking a recommendation to the federal cabinet.<sup>20</sup>

In December 2004 a number of farm organizations and grain companies put forward an alternative to the FRCC's plan, which came to be known as the Farmer Industry Partnership Proposal.<sup>21</sup> Under the proposal, a stand-alone company would be established to purchase the cars from the federal government on a lease-to-own basis, with annual payments of \$5 million to be paid over a period of 20 years. The new company was also to be charged with developing a plan for the orderly, long-term replacement of these cars. According to the proposal the cars would continue to be shared between the railways, but apportioned in keeping with commercial principles.

Although these events appeared to signal that a determination concerning the future of the government's hopper car fleet was at hand, the matter remained unresolved as the second quarter came to a close.

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<sup>18</sup> In 1996, the federal government announced that it intended to sell its fleet of 13,000 covered hopper cars. However, under the operating agreement then governing the use of these cars, the railways held a right of first refusal (ROFR) in any potential sale. Deeming that any sale should be open to a broader number of potential purchasers, the federal Minister of Transport issued a five-year notice to the railways that he was exercising his right to terminate the operating agreement as of 31 December 2001. The railways' ROFR automatically expired six months later.

<sup>19</sup> The inspection was undertaken as a means of assessing the general condition of the government's covered hopper fleet, as well as identifying any repairs that might be necessary. The inspection was performed on a representative sample amounting to about eight percent of the cars still in service.

<sup>20</sup> The consultative session referred to was held in Winnipeg, Manitoba, on 1 November 2004.

<sup>21</sup> In addition to a number of grower associations, members of the Western Grain Elevators Association and the Inland terminal Association of Canada also lent their support to the Farmer Industry Partnership Proposal.



### 2.32 Ocean Freight Rates

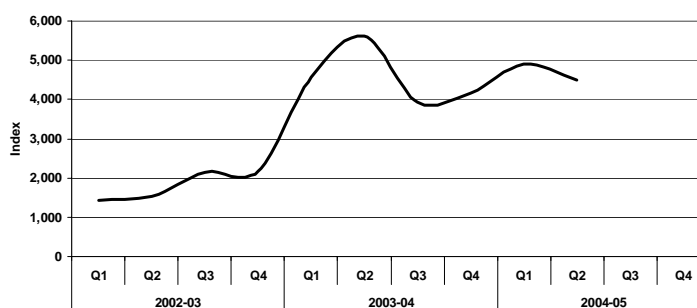
Ocean freight rates have increased substantially in the past two crop years. By the end of the second quarter of the 2003-04 crop year, they had climbed to a level that was five-and-a-half times what they had been 18 months before. Ultimately, this marked a plateau from which they tumbled in the second half. Even so, the ocean freight rates in place at the close of the 2003-04 crop year proved to be about twice what they had been at the outset of the period.

Much of this price movement reflected the prevailing, and perceived future, demand for vessels to service China's growing trade in raw materials and finished goods.<sup>22</sup> This had a significant impact on the export programs for CWB as well as non-CWB grains. In some cases, grain importers consciously deferred buying Canadian grain in the hope that ocean freight rates would moderate. In others, they simply turned to less-distant grain-exporting nations in an effort to contain these costs.

Even in North America, the rise in these costs changed traditional routing decisions. Canadian grain exports to Mexico, which had long used ocean-going vessels in movements from west coast ports, were being displaced by direct-rail shipments. By the end of the 2003-04 crop year, the direct-rail movement of Canadian grain to Mexico had climbed to almost three times what it had been a year earlier, and accounted for just over half of the total volume exported to that country. Similarly, an increase in the spread between the benchmark ocean freight rates from the US to Japan temporarily favoured the railway delivery of grain to the Pacific Northwest rather than the Gulf of Mexico. Likewise, freight differentials appeared to have influenced the timing of the railway movement of western Canadian grain to the country's east coast ports. Notwithstanding the adverse impact of reduced grain quality in the 2004-05 crop year, the high cost of ocean freight continues to be a factor in the purchasing decisions of those who consider sourcing grain from Canada.

These rates began to rise once again towards the end of the first quarter of the 2004-05 crop year, spiking by almost 50% through to the end of November 2004 before falling back sharply in December. By the end of the second quarter, ocean freight rates had increased by about 10% from those in place at the beginning of the 2004-05 crop year. A cursory examination of the Baltic Dry Index – a price index based on a composite of daily rate quotes for 24 shipping routes – showed the magnitude of the net change in recent prices.<sup>23</sup>

Figure 13: Baltic Dry Index of Ocean Freight Rates



### 2.33 Grain Industry Profitability

Having struggled in recent years with the financial realities of drought-induced reductions in grain volume and revenue, the early indications of a potential bumper crop held the promise of improved earnings for most grain handlers in the 2004-05 crop year. But the frost that affected a large section of Saskatchewan and Manitoba in late August 2004 resulted in lower yields, which in turn undermined the industry's earnings in the first half.

The impact was most evident in the financial results posted by the two largest publicly-owned grain handlers in western Canada, Agricore United (AU) and Saskatchewan Wheat Pool (SWP).<sup>24</sup> These companies had been

<sup>22</sup> A tempering of the outlook for Chinese economic growth was widely considered to have been responsible for the reduction in ocean freight rates during the second half of the 2003-04 crop year.

<sup>23</sup> The Baltic Dry Index is produced by The Baltic Exchange Limited, a London-based organization that provides independently gathered real-time freight market information such as daily fixtures, indices for the cost of shipping wet and dry cargoes, route rates, as well as a market for the trading of freight futures. The information presented in the accompanying chart is drawn from publicly available secondary sources.

<sup>24</sup> Most grain companies operating in western Canada are privately owned. As a result, the financial statements of companies such as N.M. Paterson and Sons Limited, Parrish and Heimbecker Limited and Pioneer Grain Company Limited are not publicly available.

challenged by the need to service their accumulated debts in the face of reduced grain volumes earlier in the first years of the GMP, and had worked hard to reduce their costs and improve their profitability. In fact, both companies took steps to restructure their debts in the 2002-03 crop year, although their losses for the period reached \$32.9 million and \$50.3 million for AU and SWP respectively.<sup>25</sup> With increased grain handlings, however, both managed to improve their financial positions sufficiently to post net incomes of \$4.1 million and \$5.0 million respectively in the 2003-04 crop year.

Given what had been early indications of a plentiful harvest, both companies anticipated improved earnings for the 2004-05 crop year. Cooler temperatures and an early frost severely undermined grain quality and kept producers from binning much of the crop until late in the fall of 2004. This delayed grain deliveries and adversely impacted revenues from grain storage and fertilizer sales. As a result, the two companies posted deeper than expected losses in the first half, \$43.7 million in the case of AU, and \$16.5 million for SWP.<sup>26</sup>

Clearly, the past merger of grain companies as well as their divestiture of non-core business activities has demonstrated that the industry is adaptable to changes in its competitive environment. This was witnessed once again in December 2004 when SWP announced that it was initiating a transformation of its capital structure that would formally end its existence as a farmer-controlled business cooperative.<sup>27</sup> Yet continuing losses have raised questions about the ultimate sustainability of the existing system, particularly in light of the industry's sensitivity to fluctuations in grain volume.<sup>28</sup>

It must be noted, however, that the profitability of the grain companies is not solely dependent on their grain-handling activities. Most also sell seed, fertilizer and other crop inputs, which are generally among the most lucrative facets of their businesses. The more diversified of these firms are also engaged in a variety of other commercial activities that include financial services as well as livestock operations. While this necessarily entails the acceptance of other commercial risks, the broader strategy is aimed at spreading a company's overall business risk, and minimizing the adverse financial consequences that can come from a downturn in grain-handling volume.

The problems faced by the industry are not, however, solely tied to the volume of grain handled. Many cite the overcapacity of the country elevator system as a critical issue, suggesting that the 2003-04 crop year's capacity turnover ratio of 5.6 provides the best evidence of this given that grain companies typically aim to turn over their own storage capacities by anywhere from 7 to 12 times a year.<sup>29</sup> Others counter that the GHTS's existing storage capacity provides an excellent buffer with which to hedge against the logistics challenges that loom on the horizon. For example, although bulk shipments of grain classified as "Identity Preserved" represent only a

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Even the financial statements of the foreign parents to Canadian operations such as Cargill Limited and Louis Dreyfus Ltd. are unavailable since they too are privately held. In the absence of such information, the financial performance of the largest publicly-traded, domestic grain companies, namely Agricore United and Saskatchewan Wheat Pool, must be considered indicative of the industry at large.

<sup>25</sup> Agricore United declared a net loss of \$5.5 million for its 2002-03 fiscal year. However, since the company's fiscal year extends from November through October, the result was not directly relatable to activity in the 2002-03 crop year. In order to provide for a fairer comparison, an estimated net loss of \$32.9 million for the 2002-03 crop year was developed using the company's un-audited quarterly financial reports. Similarly, this approach produced also produced an estimated net income of \$4.1 million for the 2003-04 crop year, while the company reported a net loss of \$13.7 million for its fiscal year.

<sup>26</sup> It should be noted that grain company sales and earnings are highly cyclical, typically reaching its height in the fourth quarter of the crop year. Losses in the first half of the crop year are equally characteristic, and not in itself unusual.

<sup>27</sup> The plan, which SWP saw as essential to its future viability, was aimed at significantly reducing the company's outstanding debt while improving its access to the equity market. Under the this initiative, SWP would be incorporated under the Canada Business Corporations Act, and its existing Class A and B shares consolidated into a single class of common voting shares having no special rights or privileges for farmers.

<sup>28</sup> Some grain companies contend that a significant reduction in grain quality can also have an adverse impact on profitability because, as in the case of feed wheat, it will often bypass the primary elevator system – thereby taking away from its total handlings – in favour of direct delivery to the consumer. Others maintain that the impact is negligible since reduced grain quality simply enhances the need for blending.

<sup>29</sup> The 2003-04 crop year's capacity turnover ratio of 5.6 was the highest recorded under the GMP. In large part, its rise over the course of the past five crop years has been fuelled by a 1.3-million-tonne decline in the storage capacity of the primary elevator system.

small fraction of today's total movements, its probable expansion in the near future could significantly stress the GHTS's current infrastructure and operating practices. Such differing perspectives underscore the division that exists between stakeholders with respect to how the industry can best optimize the future deployment of assets and resources.

And while the industry continues to grapple with these broader issues, it is important to note that its ongoing financial difficulties have not been limited to the GHTS's larger stakeholders. This became evident in November 2004, when Saskatchewan-based Mainline Terminal Ltd. (MTL) indicated that it was soliciting expressions of interest in its potential sale.<sup>30</sup> Since the Moosomin facility was opened in 1997, MTL had struggled to compete, accumulating large losses in the process. Even its majority shareholder, Cargill Limited, appeared uninterested in making any further investment in the operation.<sup>31</sup> By the end of the second quarter, few others seemed willing to consider a possible acquisition.

#### 2.34 Canadian Grain Commission Employees Walkout Over Stalled Contract Negotiations

Dissatisfied with the progress of contract negotiations with the federal government, Canadian Grain Commission (CGC) employees represented by the Public Service Alliance of Canada (PSAC) staged a series of rotating strikes at terminal elevator locations across Canada. The first of these began on 20 September 2004 with an illegal one-day walkout by grain inspectors in Vancouver. In the weeks that followed, CGC grain weighers and administrative staff joined in with a series of legal, as well as illegal, one-day walkouts of their own.<sup>32</sup>

In addition to Vancouver's licensed terminal elevators, those in Prince Rupert and Thunder Bay each found themselves picketed by striking PSAC employees. Among all of the facilities in western Canada, only the terminal elevator at Churchill found itself bypassed. The terminal and transfer facilities of eastern Canada were also affected.

Although these walkouts reportedly prevented vessels from being loaded in the initial stages, their impact resulted in a limited slowdown in terminal operations only. In fact the CWB indicated that the rotating strikes had no effect on its ability to meet its export sales commitments. The sole exception came when unionized grain elevator workers and stevedores refused to cross picket lines established at five of Vancouver's six terminal elevators on 24 September 2004.

In light of these actions, some questioned whether the quality control processes used in loading vessels with grain were being compromised. The CGC, however, had quickly moved to replace its striking grain inspectors and weighers with qualified non-striking personnel drawn largely from its managerial ranks in order to protect these same processes. Normally, the CGC would inspect and monitor the weighing of grain twice: once when a terminal elevator received it; and again when it was loaded onto vessels. Given practical limitations, the CGC's fill-in personnel dedicated their effort to the assurance of quality at the moment grain was loaded onto ships for export. As a means of avoiding delays and ensuring that the terminal elevators had enough grain on hand to meet demand, the terminal elevator operators were permitted to receive grain without having the CGC either inspect or weigh the cars received for unloading, provided that written permission had been received from the shipper.<sup>33</sup>

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<sup>30</sup> Mainline Terminal Limited (MTL) is a regional grain company serving southeastern Saskatchewan and southwestern Manitoba, with an inland grain terminal with producer-owned condo storage and head office located in Moosomin, Saskatchewan, and a grain elevator located in Langbank, Saskatchewan. MTL is jointly owned by Cargill Limited, which holds a majority interest, and some 350 local shareholders.

<sup>31</sup> In addition to its equity interest, Cargill Limited was also an MTL creditor owed in excess of \$2.1 million at the beginning of December 2004.

<sup>32</sup> Three separate bargaining groups represented the Canadian Grain Commission's unionized employees, with each earning the legal right to strike at various moments during the months of September and October 2004.

<sup>33</sup> In reality the impact on terminal operations as a result of this waiver was minimal given that a terminal elevator independently inspects and weighs the grain it receives. To a large extent, the CGC's inspection and weighing activity served as a failsafe mechanism, and merely confirmed the terminal elevator operator's own findings.

The walkouts came to an end late in October 2004 when striking PSAC employees reached a tentative agreement with the federal government and the CGC.

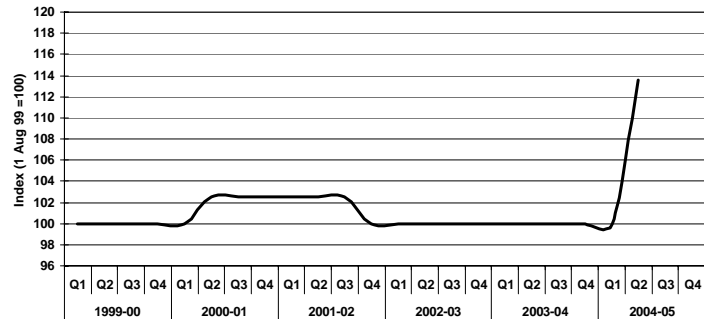
## 3.0 System Efficiency and Service Reliability

### 3.1 Trucking

Commercial trucking rates rose by 13.6% in the second quarter of the 2004-05 crop year. In fact, this escalation marks the first material change in short-haul trucking rates since fuel surcharges were implemented in the 2000-01 crop year.

To a large extent, the rates relating to the movement of grain have been contained in recent years by an excess of capacity in the face of reduced demand. In addition, the competition existing between the largest grain companies offering commercial trucking services has also been instrumental in containing these rates. However, fuel prices and other input costs have risen substantially over the course of the preceding crop year, with many carriers having already absorbed as much as a 10% increase in their direct costs. Faced with these increasing cost pressures, most carriers have indicated that rate escalations were simply unavoidable.

Figure 14: Composite Freight Rate Index – Short-Haul Trucking



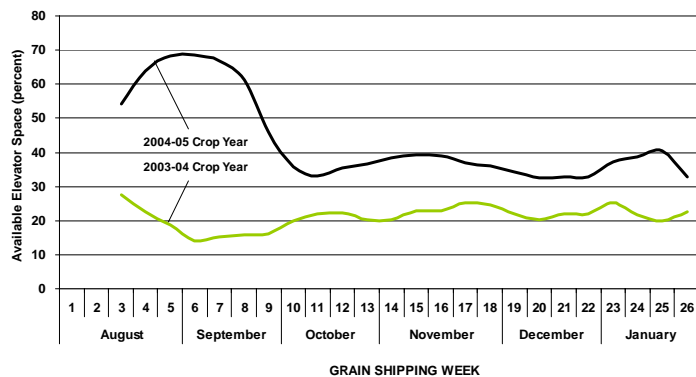
### 3.2 Country Elevators

Total country elevator throughput, measured by shipments from primary elevator facilities, increased by 4.7% in the first six months of the 2004-05 crop year, to 14.6 million tonnes from 13.9 million tonnes in the same period a year earlier. This increase in volume was also reflected in an equally higher capacity turnover ratio for the primary elevator system as a whole, which rose by 7.4% to 2.9 turns in the first half (or to 5.8 on an annualized basis). Taking into consideration an accumulated 1.3-million-tonne net reduction in associated storage capacity, this constituted one of the most commercially active periods in the history of the GMP.<sup>34</sup>

The amount of grain actually held in storage fell sharply in the first quarter, to a weekly average of 1.8 million tonnes versus 2.9 million tonnes a year earlier. More importantly, this constituted the lowest quarterly average recorded under the GMP. The average amount of time that grain spent in inventory also declined. The first quarter's 22.7-day average for the number of days-in-store was 42.2% below the 39.3-day average observed in the first quarter of the previous crop year, and rivalled the lowest time value yet seen under the GMP.<sup>35</sup>

By in large these record-setting values reflected the heightened demand for high-quality grain in a commercial environment where the late harvest had limited the supply of higher quality grains. The late harvest initially prompted a drawdown in carry-forward stocks in order to satisfy export sales commitments. When the new crop began to come off the field, whatever

Figure 15: Available Country Elevator Space



<sup>34</sup> Under the GMP, the primary elevator system's annual capacity turnover ratio reached a height of 5.6 in the 2003-04 crop year.

<sup>35</sup> A 22.7-day average for the number of days-in-store was also achieved in the fourth quarter of the 2003-04 crop year.

quantities of high-quality grain were available quickly found their way into, and through, the country elevator system. These dual forces worked to rapidly reduce inventories, and significantly lessen the amount of time grain actually spent in storage. This was reflected in an unusual rise in the amount of available country elevator space at the beginning of the first quarter, which climbed to almost 70% in early September 2004 as compared to a more normative 20%.

The improved availability of grain in the second quarter effectively relieved these pressures. Accordingly, both the weekly stock level as well as the number of days-in-store rose during this period, to an average of 2.3 million tonnes and 29.9 days respectively. This served to push up the corresponding year-to-date averages for the first half to 2.1 million tonnes and 26.1 days.

Similarly, the increase in average grain inventories in the second quarter resulted in an improvement in the overall average weekly stock-to-shipment ratio. Typically amounting to about 5.0, the first quarter's average had fallen largely in a reflection of tighter grain supplies to 2.8, the lowest value yet observed under the GMP. In the second quarter, however, the overall average climbed to 4.2. This helped to pull up the year-to-date average to 3.5.

### 3.3 Railway Operations

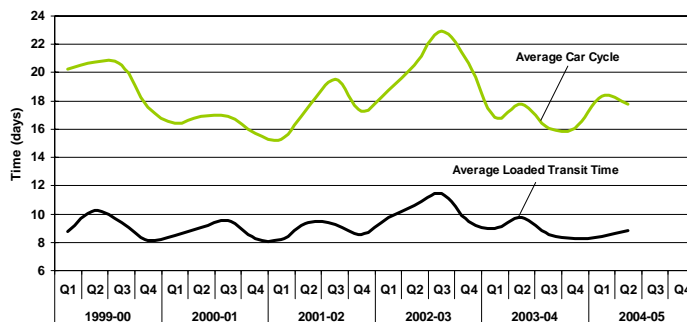
The volume of grain moved in covered hopper cars during the first half increased by 3.0% as compared to the same period a year earlier, from 9.8 million tonnes to 10.1 million tonnes. The volume originated by Class 1 carriers during this period increased by 6.0% to 9.4 million tonnes. Conversely, that originated by shortline railways fell by 24.6% to just over 0.7 million tonnes. The contrasting nature of these declines continues to underscore the effects of the traffic erosion that has come from the closure of many of the smaller wood-crib elevators located along the grain-dependent branch lines that the shortline railways in western Canada typically serve. With the loss of its conventional grain business, these smaller carriers have grown increasingly dependent on the grain volume now being shipped using producer cars.<sup>36</sup> As a result, much of the reduction in shortline grain traffic parallels the 25.7% decline in producer-car loadings during this period.

#### 3.31 Car Cycles

The railways' average car cycle in the first half increased to 18.0 days, 4.3% more than the 17.3-day average of the same period a year earlier. The car cycle to Prince Rupert posted the most substantive increase, having risen by 13.3% to an average of 17.5 days. For movements to Thunder Bay, the average car cycle increased by a substantially lesser 6.9% to 17.9 days. The average for the Vancouver corridor effectively remained unchanged at 18.3 days.

A sharp rise in the empty transit time proved to be the underlying force in the elongation of the overall car cycle. In specific terms, the six-month average empty transit time climbed by 17.9%, to 9.4 days from 7.9 days a year earlier. Conversely, the loaded transit time actually fell by 7.3%, to an average of 8.7 days from 9.3 days. Although the values varied, this general pattern was exhibited in changes to the individual averages for movements in the Thunder Bay and Vancouver corridors.<sup>37</sup>

Figure 16: Railway Car Cycles



<sup>36</sup> Producer-car loading has increased significantly in recent years. Although this has largely been facilitated by the advent of license-exempt producer loading facilities, the conversion of previously closed elevators into producer-car loading sites has also helped to stem the loss of conventional grain traffic by these smaller carriers.

<sup>37</sup> Unlike those of the Thunder Bay and Vancouver corridors, the average loaded and empty transit times for movements in the Prince Rupert corridor both showed increases.

Still, these overall averages mask the fact that CP's average car cycle fell by 8.5% in the first half, while CN's climbed by 15.1%. In addition, these results underscored some significant differences in carrier activity. Whereas CP's improvement was largely fuelled by a 19.8% reduction in its average loaded transit time, CN's deterioration stemmed chiefly from a 31.6% increase in its average empty transit time.

To some degree, these results reflect the differences in each carrier's workload. Since CP handled a significantly greater proportion of the grain volume that was moved in the first quarter, the CP fleet was comparatively more active than the CN fleet during this period. This resulted in less demand pressure having been placed on the CN fleet, particularly when it came to returning empty cars to the prairies for reloading.<sup>38</sup> Evidence of this could be found in a sharp reduction in the volume of grain that moved to Prince Rupert in September and October 2004, which adversely affected the car cycle in this particular corridor.<sup>39</sup> Conversely, CN's increased handlings in the second quarter resulted in a sharp reduction to the carrier's average empty transit time, which itself contributed significantly to the overall improvement made during this period.

### 3.32 Railway Freight Rates

As outlined in the Monitor's last annual report, the 2003-04 crop year saw CN and CP break with the practice of putting forward similar adjustments to their freight rates, and adopt decidedly different rate structures. With minor exception, CN maintained the rates that had prevailed throughout the preceding crop year, while CP effectively rolled back its rates by approximately 1.0%. Both carriers, however, increased their published rates in the latter half of the crop year. With these later adjustments, the year-over-year increase in CN and CP freight rates amounted to about 1.5% and 1.0% respectively. As a result of these different pricing decisions, a narrow gap opened in the rate structures that had previously existed, which gave CP a modicum of greater price competitiveness.

In addition, both carriers also made the first significant changes to the discounts offered under their respective incentive programs since the beginning of the 2000-01 crop year.<sup>40</sup> Here too, the discounts offered by CP provided potentially greater savings to shippers than those offered by CN. On the whole, these actions appear to have helped CP garner a greater share of the overall grain movement in western Canada.

To a large degree, railway pricing showed greater symmetry in the 2004-05 crop year. At the beginning of August 2004 CN effectively reduced its rates to the four ports in western Canada by about 1.0%. Although CP did the same with respect to its rates to Thunder Bay, it maintained the rates already in place for grain moving to Vancouver. On the whole, rates in the Thunder Bay and Vancouver corridors have increased by about 3.6% and 4.2% respectively over the span of the entire GMP.<sup>41</sup>

There were, however, substantive changes to the incentive programs offered by both railways. Although CN did not alter the discounts it offered for movements in blocks of 50-99 cars (\$4.00 per tonne) and 100 or more cars (\$6.00 per tonne), it dispensed with the \$1.00 per-tonne premium that it had been paying on shuttle train movements.<sup>42</sup> This effectively eliminated the financial benefit that had been given to shippers when they committed to move a specific number of trains over a defined period of time.

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<sup>38</sup> Inactivity is known to manifest itself in generally longer empty transit times since railcars are compelled to wait longer periods for the next loading opportunity.

<sup>39</sup> The falloff in grain traffic to Prince Rupert was the result of scheduled facility maintenance at Prince Rupert Grain Ltd., and a reduction in the volume that moved to the port while the CWB re-evaluated the quality of the crop then being harvested.

<sup>40</sup> The pricing actions of CN and CP in the 2003-04 crop year are merely outlined here. For more information on the scope of the pricing actions undertaken by both carriers during this period, please consult tables 3C-8 and 3C-9.

<sup>41</sup> The Thunder Bay and Vancouver corridors are deemed the most competitive since both CN and CP offer direct rail services to these ports. Notwithstanding minor differences, the rate increases noted here are intended to reflect the general pricing actions of both carriers in these two corridors. With only one serving carrier at the ports of Churchill and Prince Rupert, inter-carrier comparisons of rate changes are not possible. An examination of CN's published rates to these ports show increases of about 3.8% for Churchill, and reductions of about 2.0% for Prince Rupert, over the same period of time.

<sup>42</sup> CN's specified shuttle premium of \$8,700 per train effectively increased the discount earned in the movement of a 100-car train from \$6.00 per tonne to about \$7.00 per tonne.

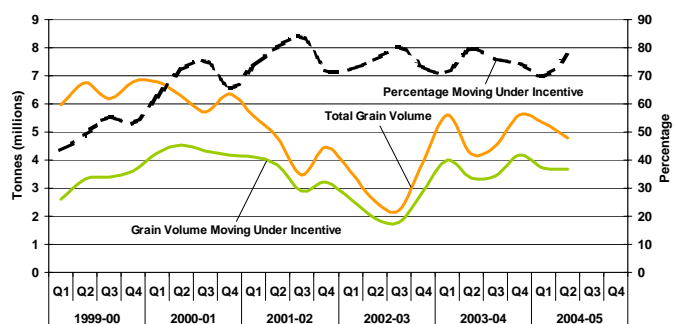
In the case of CP, the carrier reduced the discount it offered for movements in blocks of 100-111 cars from \$7.00 per tonne to \$4.00 per tonne, the same discount given for shipments in blocks of 50-99 cars.<sup>43</sup> The carrier, however, maintained its maximum discount on shipments in blocks of 112 cars at \$7.50 per tonne.<sup>44</sup> These changes effectively signalled a further effort by CP to promote grain shipments in the largest trainload lots possible. Even so, CP eliminated its shuttle train programs along with the premiums that had been offered under them.<sup>45</sup>

Nevertheless, both carriers appeared to be emphasizing the expanded benefits of their advance booking options. On the whole, these options held out the promise of improved car supply if the shipper committed to ordering cars even further ahead of time, over a larger number of consecutive shipping weeks, and in specific minimum quantities, than had been the case previously. All of these options involved a diverse series of supporting financial rewards and penalties. One change in the rationalization mechanism brought forward by CP under its “AdvanceMax” program actually required shippers to pay a premium if the penalty they bid exceeded \$3,000 per car.<sup>46</sup>

The changes made by CN and CP to their incentive programs would normally reduce the total monetary value of the incentives shippers have been earning. However, since some of the larger discounts were effectively “grandfathered,” the potential impact on railway revenues appeared to have largely been neutralized.<sup>47</sup> As such, the 0.9% reduction in the Volume-Related Composite Price Index became the key driver in the observed rollback of up to 1% in posted railway freight rates at the beginning of the 2004-05 crop year.<sup>48</sup> This meant that individual producers became the principal beneficiaries of the changes made to railway pricing, which effectively reduced their freight charges and provided them with a comparatively wider financial savings than in the previous crop year.

In general terms, there appears to have been only modest changes to the relative volume of grain that moved under the railways’ incentive programs, 73.3% in the first half as compared to 75.1% for 2003-04 crop year as a whole. However, with the restructuring of the incentive discounts

Figure 17: Railway Volume Moving Under Incentive



<sup>43</sup> It should be noted that although CP reduced the discount that applied on movements of 100-111 cars from \$7.00 per tonne to \$4.00 per tonne, a number of grain shippers indicated that the higher discount was “grandfathered” to those who had been earning it before the change was instituted.

<sup>44</sup> To earn the maximum discount of \$7.50 per tonne, a shipper must load the 112 cars in a 10-hour window. Shippers unable to do so can instead earn the \$7.00-per-tonne discount that is available for cars loaded in a 24-hour window.

<sup>45</sup> The premiums paid by CP varied according to both the number of shuttle trains to which a shipper committed itself (i.e., four, eight or twelve), as well as their relative size (i.e., 100-car trains versus 112-car trains). As such, the maximum net discount a qualifying shipper could receive amounted to about \$9.00 per tonne. These programs were formally withdrawn at the beginning of the 2004-05 crop year.

<sup>46</sup> The rationalization mechanism referred to required potential shippers to bid on the cars that CP was willing to provide for loading in a specified period. In effect, these bids constituted a penalty that the shipper would pay to the railway if it failed to load the car in accordance with the parameters of the program. In the event that a winning bid actually exceeded \$3,000 per car, the new rules required the shipper to advance any amount above this threshold to CP immediately, the residual to be paid to the carrier as a penalty if applicable.

<sup>47</sup> Had these discounts not been “grandfathered,” the change would have resulted in an increase in carrier revenues. Depending on the volume of grain actually earning such discounts, the net gain in total revenue might have been enough to exceed the limit imposed by the revenue cap.

<sup>48</sup> The revenue cap is adjusted annually for inflation by the Canadian Transportation Agency. For the 2004-05 crop year, the Agency determined that Volume-Related Composite Price Index used to accomplish this was to be reduced by 0.9%. See Canadian Transportation Agency Decision Number 203-R-2004 dated 22 April 2004.



offered by both CN and CP in the last two crop years, the Monitor is no longer able to examine these shipments in a consistent manner. Specifically, the elimination or redefinition of the car blocks defined under both programs effectively reduced the comparisons that could be made to incentive shipments in blocks of less than 50 cars versus those in blocks of 50 or more cars. As such, incentive movements in blocks of 25-49 railcars could be seen to have declined by a marginal 0.3 percentage points in this period, to 5.7% from 6.0%. Movements in blocks of 50 or more cars showed a somewhat greater decline, having fallen from an estimated 69.1% for the 2003-04 crop year as a whole, to 67.6% in the first six months of the 2004-05 crop year.

The total volume of grain that moved under railway incentives in the first half remained essentially unchanged from the same period a year earlier, increasing by just 0.6% to 7.4 million tonnes. Moreover, the value of the discounts earned by shippers is estimated to have reached \$33.5 million, a gain of 0.5% from the \$33.3 million earned in the first six months of the 2003-04 crop year. The average-earned discount amounted to \$4.52 per tonne, only 0.4% lower than the \$4.54-per-tonne average of the 2003-04 crop year as a whole.

### **3.4 Terminal Elevator and Port Performance**

#### ***3.41 Terminal Elevators***

A total of 9.6 million tonnes of grain passed through the terminal elevators of Canada's western ports in the first six months of the 2004-05 crop year. This volume was virtually indistinguishable from that of the same period a year earlier, having fallen by a mere 0.6%. Even so, there were some noticeable differences in the comparative throughputs of the individual ports during this period.

The volume of grain that passed through the port of Vancouver also saw little real change, having increased by 2.5% to 4.9 million tonnes. Furthermore, Vancouver became the principal west-coast gateway for high-quality CWB grains. Notwithstanding this, Prince Rupert saw its throughput increase by 38.6% to almost 1.3 million tonnes in total. For the most part, the port's increased volume was directly attributable to the larger quantity of feed grain that was moved by the GHTS in the first half.<sup>49</sup>

The ports of Churchill and Thunder Bay on the other hand, saw their volumes fall, by 24.9% to 0.4 million tonnes in the case of the former, and by 11.5% to 3.0 million tonnes in the case of the latter. Churchill, with its comparatively shorter shipping season, felt the effects of the late harvest more acutely than did other western ports, handling about two-thirds of the 0.6 million tonnes that had been anticipated. The poorer harvest was also the chief factor in Thunder Bay's reduced throughput for the period.

As with country elevator inventories, the demand for high-quality export grains in the face of a late harvest and tighter supplies placed additional pressure on the GHTS's terminal elevator stocks. This was particularly evident during the first quarter when terminal inventories fell to an average of 0.9 million tonnes, the lowest quarterly value observed under the GMP. With the easing of these pressures, terminal elevator stocks rose by almost one-third to an average of 1.2 million tonnes in the second quarter. Even so, the year-to-date average of 1.0 million tonnes still fell 10.0% below the 1.1-million-tonne average recorded for the corresponding period in the previous crop year.

The easing of these demand pressures had a similar impact on the amount of time spent by grain in inventory. Although the first quarter's 17.2-day average proved to have been among the lowest values yet recorded under the GMP, the average rose to 20.2 days in the second. Although this came about largely as a result of the general increase in elevator inventories already mentioned, it was heavily influenced by a 55.3% increase in Thunder Bay stocks. Even so, the year-to-date average increased only moderately to 18.6 days, a value 7.0% below the 20.0-day average of the corresponding period a year earlier.

The second quarter's increase in terminal elevator stocks had varied impacts on the average weekly stock-to-shipment ratios for the major grains. Although those tied to Vancouver moved somewhat lower in reflection of the port's increased throughput, the ratios relating to activity at Thunder Bay showed generally substantive

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<sup>49</sup> Owing to the poorer quality of the 2004 harvest, a larger proportion of the export grain movement was comprised of feed grains. With higher-quality grains having been directed through the port of Vancouver, lower-quality feed grains were moved primarily through Prince Rupert. The limited movement of high-quality grain through Prince Rupert was equally reflected in the smaller volumes that moved to the port under the CWB's tendering and advance car awards programs.

increases. To a large extent, these shifts reflect the effects of an improved stability in the weekly grain shipments made during the second quarter. The greater consistency in these shipments also helped to reduce the variability in these ratios as well. Although shortages were periodically experienced at each of the four ports, they occurred far less frequently in the second quarter.

### 3.42 Port Performance

Some 360 vessels called at western Canadian ports during the first six months of the 2004-05 crop year. Although this represented a 6.7% reduction from the 386 that arrived for loading during the same period a year earlier, it mainly reflected an increase in the use of larger vessels. This was particularly the case in Prince Rupert where much of the feed wheat was concentrated for west coast export, and where almost three-quarters of the 29 ships that arrived took on loads in excess of 30,000 tonnes.<sup>50</sup>

Despite the variation in volume witnessed over the course of the preceding five crop years, the average amount of time spent by vessels in port has generally fluctuated between 4.0 and 4.5 days.<sup>51</sup> Although the first quarter's 4.2-day average fell well within this range, the second quarter's average jumped to 5.7 days. This pushed the year-to-date average up to 4.9 days, an increase of 11.4% over the 4.4-day average for the same period a year earlier. On the whole, waiting times increased by an average of 0.4 days (or 22.2%) to 2.2 days, while the amount of time given over to the actual loading of these vessels increased by 0.1 days (or 3.8%) to an average of 2.7 days.

Much of the influence in these overall results can be traced back to activity in Vancouver, where loading delays pushed the port's second quarter and year-to-date averages up to 8.2 days and 7.1 days respectively. This stemmed chiefly from problems in locating and sourcing grains that met the shipment's specifications for higher quality, including its falling number, throughout much of November and December 2004. In addition, the handling of larger vessels at Prince Rupert drove the average time they spent in port up by 32.5% in the first half, to 5.3 days from 4.0 days a year earlier. The average for Churchill also increased by 28.2% to 5.0 days as a result of vessel loading delays brought on by the late harvest.<sup>52</sup>

## **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. In this regard, the Monitor's annual report for the 2003-04 crop year concluded that the amount of time taken by grain as it moved through the supply chain had fallen to its lowest recorded value under the GMP, 62.3 days.

Even so, at an average of 48.3 days, the pace at which grain moved through the GHTS during the first quarter of the 2004-05 crop year proved to be substantially faster. This result, however, was heavily influenced by the late harvest that resulted in a rapid draw down of existing carry-forward stocks, and dramatically reduced the amount of time spent by grain in storage in the primary elevator system, which averaged 22.7 days in the first quarter as compared to the previous crop year's 34.4-day average.

With the significant easing of these pressures, primary elevator inventories and storage times both began to increase, with the latter having rebounded to an average of 29.9 days for the second quarter. As a result, the year-to-date average for the first half of the 2004-05 crop year rose by 3.4 days to 26.1 days. This, however, still constituted an 8.3-day (or 24.1%) improvement over the previous crop year's 34.4-day average.

The improved speed with which grain moved through the GHTS was also aided by a 0.2-day (or 2.2%) reduction in the railways' loaded transit time, which averaged 8.7 days in the first half. Similarly, a 2.1%

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<sup>50</sup> Feed wheat is generally shipped in larger quantities than higher-quality grain. Comparatively, only 14 of the 28 (or 50.0%) ships that loaded at Prince Rupert in the first half of the 2003-04 crop year took on loads in excess of 30,000 tonnes. Moreover, vessel loading during this period averaged 32,800 tonnes, about three-quarters of the current crop year's 42,400-tonne average.

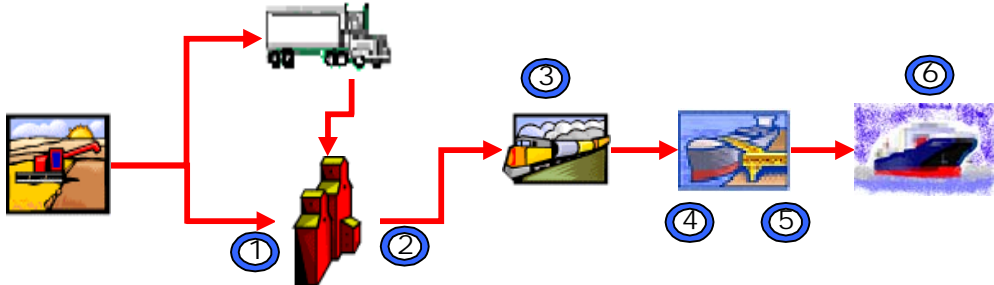
<sup>51</sup> During the course of the GMP, there were instances where the quarterly average actually exceeded 4.5 days. The most significant quarterly deviations from this value were observed in the 2000-01 crop year.

<sup>52</sup> It should be noted that any significant delay to a vessel at Churchill has a larger negative impact on the port's average given the small number of vessels handled, which amounted to 14 in the first quarter of the 2004-05 crop year.

decrease in the amount of time grain spent in inventory at terminal elevators, which averaged 18.6 days as compared to the preceding crop year's 19.0-day average, added a further 0.4 days.

As a result, grain took an average of 53.4 days to move through the supply chain in the first six months of the 2004-05 crop year. Although this was 8.9 days (or 14.3%) below the 2003-04 crop year's 62.3-day average, it marked a 5.1-day worsening of the first quarter's 48.3-day average.

**Table 1: The GHTS Supply Chain**



SUPPLY CHAIN ELEMENT	TABLE	1999-00	2000-01	2001-02	2002-03	2003-04	YTD 2004-05	SUPPLY CHAIN EFFECT	
<b><u>SPEED RELATED</u></b>									
2	Country Elevator – Average Days-in-Store	3B-4	41.7	38.3	38.0	47.9	34.4	26.1	▼
3	Average Railway Loaded Transit Time (days)	3C-4	9.2	8.8	8.8	10.1	8.9	8.7	▼
5	Terminal Elevator – Average Days-in-Store	3D-4	18.6	17.5	20.6	21.7	19.0	18.6	▼
<b>Average Total Days in GHTS</b>			69.4	64.6	67.4	79.7	62.3	53.4	▼
<b><u>SERVICE / ASSET RELATED</u></b>									
1	Average Country Elevator Capacity Turnover Ratio	3B-2	4.8	5.0	4.5	3.7	5.5	2.9	▲
4	Average Terminal Elevator Capacity Turnover Ratio	3D-2	9.1	8.9	6.6	5.0	7.0	n/a	–
3	Average Railway Car Cycle (days)	3C-4	19.9	16.4	17.1	20.4	16.7	18.0	▲
6	Average Vessel Time in Port (days)	3D-7	4.3	5.9	4.9	4.3	4.0	4.9	▲

A few general observations concerning the supply chain's performance during the first half of the 2004-05 crop year are warranted:

- Firstly, with a grain supply of 60.0 million tonnes, the 2004-05 crop year's potential grain movement falls just short of the 62.6 million tonnes that was available in the first year of the GMP. And although the first quarter's throughput was largely comparable to that handled during the same period of the 1999-2000 crop year, the amount of grain handled in the second fell well short of this benchmark. As such, only 9.6 million tonnes of grain passed through western Canadian ports in the first half of the 2004-05 crop year as compared to 12.1 million tonnes during the same period in the GMP base year. As a result, the volume-related pressures brought to bear on the GHTS in the first half have not been as great as those experienced at the beginning of the GMP.
- Secondly, although the volume of grain moved through the GHTS in the first half was comparable to what it had been a year earlier, the movement was heavily influenced by other factors. In general terms,

grain quality was significantly diminished as a result of the cool, wet conditions that prevailed in August and September 2004. This meant that the quantity of higher-quality grains that traditionally constitute the bulk of Canada's exports, such as 1 CWRS wheat and 1 CWA durum, were in very tight supply. As such, the GHTS experienced periodic shortages, and handled an unusually larger proportion of lower-quality grains than normal. This also had an influence over the mix of both grains and grades that moved through specific ports. By way of example, Vancouver became the principal west coast port for the export of higher-quality CWB grains, while Prince Rupert became the system's lead handler of lower-grade wheat.

- Thirdly, the combined effects of the late harvest along with the limited availability of higher-quality grades placed significant demand pressure on the GHTS. In general terms, carryover stocks were quickly drawn down in order to fill programmed sales, while those coming into the system after harvesting were promptly expedited. This was the key driver behind the reduction in the average stock level, and in the accelerated rate at which grain passed through both the country elevator system and the supply chain in the first quarter. The subsequent easing of these pressures was largely responsible for the deceleration that came about in the second quarter.
- Finally, higher ocean freight rates continued to exert an influence over the direct-rail movement of grain within North America. Direct-rail shipments to Mexico, while somewhat below the pace exhibited last year, continued to point towards significantly greater volumes than were seen in the earliest years of the GMP. Even though the demand for carrying capacity to service both domestic and international markets has prompted the railways to lease more equipment, problems with car supply appeared to be an ongoing concern for many of the GHTS's stakeholders.

## 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.<sup>53</sup>

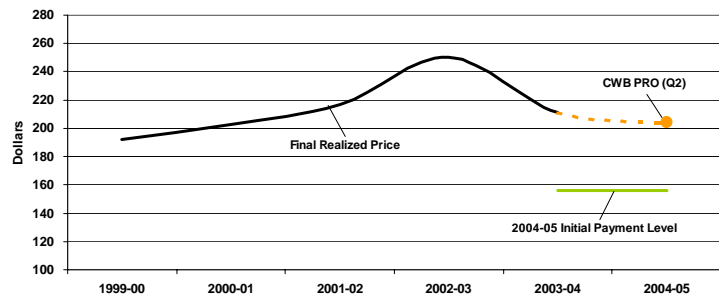
In its earlier reports, the Monitor described how increased commodity prices had largely been responsible for the improvement in the per-tonne returns accruing to producers of wheat, durum, canola, and yellow peas in the first four crop years of the GMP. During this same period, the export basis also fell marginally, thereby adding to the gains that improved grain prices had already generated. With the continued downward movement in prices observed during the first quarter of the 2004-05 crop year, the per-tonne gains that had been realized by producers through to the end of the 2002-03 crop year were being significantly eroded.

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 six months of the 2004-05 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 first half of the 2004-05 crop year, the CWB's PRO for 1 CWRS wheat fell gradually from the 2003-04 crop year's final realized price of \$211.14 per tonne. By the end of the first quarter, the PRO had fallen to \$203.00 per tonne. There was little subsequent movement in the second quarter, although the PRO ultimately fell to a low of \$202.00 per tonne before then regaining some of the ground lost to close out January 2005 at \$204.00 per tonne. Even so, this value well exceeded the \$156.15 per tonne that had been set as the farmer's initial payment for the 2004-05 crop year by 30.6%.

Figure 18: Recent Price Changes – 1 CWRS Wheat (dollars per tonne)



For the most part, much of this price erosion stemmed from the expectation of increased global production and continued competition between exporting nations. As a result, the 2004-05 crop year appears likely to be a second consecutive year wherein the financial return to producers will be undermined by a further deterioration in commodity prices. This signals a reversal of a three-year trend that had given rise to higher market prices in the face of anticipated reductions in world supplies. Even so, the premiums paid by the CWB on higher-quality grades such as 1 CWRS wheat as a result of tighter domestic supplies helped buoy prices beyond what they might have otherwise been during this period.

<sup>53</sup> 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

Similarly, the Vancouver cash price for 1 Canada Canola fell by 19.0% in the first six months of the 2004-05 crop year, from an average of \$387.11 per tonne for the 2003-04 crop year as a whole to \$313.60 per tonne. As was the case with wheat, much of this decline in price resulted from changes in the global oilseed market. The disclosure of a record South American soybean harvest provided the first real downward pressure on oilseed prices early in the 2004-05 crop year. In addition, when the US Department of Agriculture projected that American soybean production in 2004 would prove to be 27% greater than it had been in 2003, prices tumbled even further.

Still, canola prices were partially supported as a result of Canada's unusually cooler growing season and the devastating frost that came in late August, which served to heighten market concerns about both the timing and quality of the domestic harvest.

The scope of the decline in price for both 1 CWRS wheat and 1 Canada canola strongly suggests that there will be adverse impacts on the per-tonne financial returns of western Canadian grain producers in the 2004-05 crop year. Owing to the comparatively greater fall in canola prices, the producer netback for non-CWB grains will likely suffer more than will CWB grains.

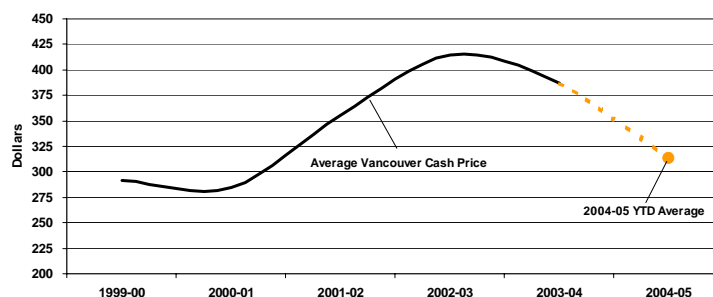
In addition, although some input costs – particularly railway freight rates – posted modest reductions at the outset of the 2004-05 crop year, most others increased. The most noteworthy of these were the charges assessed for terminal elevator storage, which increased by an average of 5.8%. Average increases in other country and terminal elevator handling charges ranged upwards to a ceiling of about 2.5%. At the same time, there are suggestions that producer benefits (i.e., trucking premiums and CWB transportation savings) have also been adversely impacted by the reduced availability of higher-quality grain. These changes allude to a modest increase in the export basis, and further erosion in the financial returns of farmers.

#### 4.2 Producer-Car Loading

As related in the Monitor's 2003-04 annual report, the aggregate number of producer-car loading sites had fallen from 706 to 492 over the course of the last five crop years. This net decline stemmed largely from a reduction of 283 sites local to both CN and CP. Shortline carriers assumed operation of a portion of these, which resulted in their count rising from 63 to 132 in the same period. The only changes registered thus far into the 2004-05 crop year came as a result of the establishment of four new producer-car loading sites in the first quarter, which increased the overall total by 0.8% to 496. Two of these sites came from the inclusion of former BC Rail locations as a result of its acquisition by CN. The remaining two sites denoted individual additions to those already serviced by major and shortline railways.

Producer-car shipments during the first half of the 2004-05 crop year fell by 25.7% from that of the same period a year earlier, from 3,902 to 2,900. In relation to the volume of grain shipped in covered hoppers, producer-car loadings accounted for just 2.6% of the total tonnage. This proportion was well below the 4.2% it was estimated to have constituted for the 2003-04 crop year as a whole. To a large extent, this decline appears to have been directly related to the previously discussed reduction in the quality of this year's crop.

Figure 19: Recent Price Changes – 1 Canada Canola (dollars per tonne)





## 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. Moreover, they may also be catalysts that shift traditional traffic patterns, the demand for particular services, and the utilization of assets.

### **Highlights – Second Quarter 2004-05 Crop Year**

#### **Grain Production and Supply**

- Grain production increased by 12.1% to 53.4 million tonnes.
  - Cool, wet weather produces lower-quality crop and a late harvest.
  - Higher-quality grades in tight supply.
- Carry forward stock increased by 21.1% to 6.6 million tonnes.
- Overall grain supply increased by 13.0% to 60.0 million tonnes.

#### **Railway Traffic**

- Railway movements in the first half increased by 2.0% from the same period a year earlier to 10.4 million tonnes.
  - Negatively impacted by the late harvest and short-term grain supply problems in the first quarter.
- Traffic to western Canadian ports show mixed results.
  - Prince Rupert volume increased by 31.5% to 1.2 million tonnes.
    - Reflects concentrated movement of lower-quality wheat.
  - Volume to Vancouver increased by 3.5% to 5.8 million tonnes.
  - Volume to Thunder Bay decreased by 7.6% to 3.0 million tonnes.
  - Churchill volume decreased 8.3% to 0.4 million tonnes.

#### **Country Elevator Infrastructure**

- Rationalization efforts of the major grain companies continued to moderate.
  - All reductions recorded in the first quarter.
    - No reductions made in the second quarter.
  - Grain delivery points reduced by 1.4% to 284.
  - Number of country elevators fell by 3.5% to 390.
- Elevator storage capacity increased by 0.4% to 5.7 million tonnes.
- Elevators capable of loading in blocks of 25 or more cars fell by 3.4% to 254.
  - Accounted for 65.1% of total GHTS elevators.
  - Share of GHTS primary storage capacity rose to 87.9%.

#### **Railway Infrastructure**

- Western Canadian rail network reduced by 0.2% to 18,780 route-miles.
  - Abandonment of 43.2 route-miles of CP infrastructure.
- CN proceeds to integrate the operations of BC Rail.
  - Included about 1,500 carloads of originated grain.
- Sale of Great Western Railway completed in second quarter.
  - Acquired by local interests.

#### **Terminal Elevator Infrastructure**

- Licensed GHTS terminal elevators remain unchanged at 16.
  - Licensed storage capacity remains unchanged at 2.6 million tonnes.
- Terminal elevator unloads for the first half falls by 0.3% to 108,741 railcars.



## Indicator Series 1 – Industry Overview

											2004-05	
Table	Indicator Description	Notes	1999-00	2001-02	2002-03	2003-04	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Production and Supply [Subseries 1A]</b>												
1A-1	Crop Production (000 tonnes)	(1)	55,141.7	42,541.4	31,539.9	47,655.3	53,401.3	-	-	53,401.3	12.1%	▲
1A-2	Carry Forward Stock (000 tonnes)	(1)	7,418.2	8,750.6	6,070.8	5,488.9	6,647.5	-	-	6,647.5	21.1%	▲
	Grain Supply (000 tonnes)	(1)	62,559.9	51,292.0	37,610.7	53,144.2	60,048.8	-	-	60,048.8	13.0%	▲
<b>Rail Traffic [Subseries 1B]</b>												
1B-1	Railway Grain Volumes (000 tonnes) – Origin Province	(1)	26,441.0	18,765.1	12,736.4	20,658.9	5,463.4	4,942.6	-	10,405.9	2.0%	▲
1B-2	Railway Grain Volumes (000 tonnes) – Primary Commodities	(1)										
1B-3	Railway Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
<b>Country Elevator Infrastructure [Subseries 1C]</b>												
1C-1	Grain Delivery Points (number)	(2)	626	348	292	288	284	284	-	-	-1.4%	▼
1C-1	Grain Elevator Storage Capacity (000 tonnes)	(2)	7,443.9	6,125.2	5,747.3	5,688.6	5,713.6	5,713.6	-	-	0.4%	-
1C-1	Grain Elevators (number) – Province	(2)	917	500	416	404	390	390	-	-	-3.5%	▼
1C-2	Grain Elevators (number) – Railway Class	(2)										
1C-3	Grain Elevators (number) – Grain Company	(2)										
1C-4	Grain Elevators Capable of Incentive Loading (number) – Province	(2)	317	292	269	263	254	254	-	-	-3.4%	▼
1C-5	Grain Elevators Capable of Incentive Loading (number) – Railway Class	(2)										
1C-6	Grain Elevators Capable of Incentive Loading (number) – Railway Line Class	(2)										
1C-7	Grain Elevator Openings (number) – Province	(2)	43	29	31	9	9	9	-	-	0.0%	-
1C-8	Grain Elevator Openings (number) – Railway Class	(2)										
1C-9	Grain Elevator Openings (number) – Railway Line Class	(2)										
1C-10	Grain Elevator Closures (number) – Province	(2)	130	310	115	21	23	23	-	-	9.5%	▲
1C-11	Grain Elevator Closures (number) – Railway Class	(2)										
1C-12	Grain Elevator Closures (number) – Railway Line Class	(2)										
1C-13	Grain Delivery Points (number) – Accounting for 80% of Deliveries	(2)(3)	217	107	89	95	n/a	n/a	n/a	n/a	n/a	-
<b>Railway Infrastructure [Subseries 1D]</b>												
1D-1	Railway Infrastructure (route-miles) – Grain-Dependent Network	(2)	4,876.6	4,495.8	4,495.8	4,406.1	4,406.1	4,406.1	-	-	0.0%	-
1D-1	Railway Infrastructure (route-miles) – Non-Grain-Dependent Network	(2)	14,513.5	14,428.1	14,428.1	14,416.6	14,373.4	14,373.4	-	-	-0.3%	-
1D-1	Railway Infrastructure (route-miles) – Total Network	(2)	19,390.1	18,923.9	18,923.9	18,822.7	18,779.5	18,779.5	-	-	-0.2%	-
1D-2	Railway Grain Volumes (000 tonnes) – Grain-Dependent Network	(1)	8,683.6	6,228.7	3,670.1	6,359.3	1,440.3	1,477.8	-	2,918.1	-10.7%	▼
1D-2	Railway Grain Volumes (000 tonnes) – Non-Grain-Dependent Network	(1)	16,976.0	12,048.0	8,601.2	13,564.2	3,879.4	3,305.6	-	7,185.1	9.9%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Total Network	(1)	25,659.6	18,276.6	12,271.3	19,923.5	5,319.8	4,783.4	-	10,103.2	3.0%	▲
1D-3	Shortline Railway Infrastructure (route-miles)	(2)	3,043.0	3,106.0	3,363.7	3,299.7	3,299.7	3,299.7	-	-	0.0%	▼
1D-3	Shortline Railway Grain Volumes (000 tonnes)	(1)	2,090.5	2,061.0	1,111.7	2,001.4	298.0	417.0	-	715.0	-24.6%	▼
1D-5	Railway Grain Volumes (000 tonnes) – Class 1 Carriers	(1)	23,569.1	16,215.7	11,159.6	17,922.1	5,021.7	4,366.4	-	9,388.2	6.0%	▲
1D-5	Railway Grain Volumes (000 tonnes) – Class 2 and 3 Carriers	(1)	2,090.5	2,061.0	1,111.7	2,001.4	298.0	417.0	-	715.0	-24.6%	▼
1D-6	Grain Elevators (number) – Grain-Dependent Network	(2)	371	180	141	135	131	131	-	-	-3.0%	▼
1D-6	Grain Elevators (number) – Non-Grain-Dependent Network	(2)	513	305	261	255	244	244	-	-	-4.3%	▼
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Grain-Dependent Network	(2)	2,475.4	1,731.3	1,569.3	1,543.1	1,593.6	1,593.6	-	-	3.3%	▲
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Non-Grain-Dependent Network	(2)	4,847.6	4,334.0	4,123.5	4,093.4	4,065.2	4,065.2	-	-	-0.7%	▼
<b>Terminal Elevator Infrastructure</b>												
1E-1	Terminal Elevators (number)	(2)	15	17	17	16	16	16	-	-	0.0%	-
1E-1	Terminal Elevator Storage Capacity (000 tonnes)	(2)	2,678.6	2,733.6	2,733.6	2,642.6	2,642.6	2,642.6	-	-	0.0%	-
1E-2	Terminal Elevator Unloads (number) – Covered Hopper Cars	(1)	278,255	202,943	125,339	218,447	56,705	52,036	-	108,741	-0.3%	-

- (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 as 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 as 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 2003-04 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 2004-05 crop year, the CWB has committed itself to moving 40% of its grain shipments under a 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 – Second Quarter 2004-05 Crop Year

#### Tendering Program

- 155 tender calls were issued by the CWB in the first half of the 2004-05 crop year.
  - Calls for the movement of 2.3 million tonnes to export positions in western Canada.
    - Vancouver delivery – 59.0%; Thunder Bay – 24.1%; Prince Rupert – 14.6%; and Churchill – 2.3%.
    - Prince Rupert share of tender calls falls sharply as it becomes the destination of choice for feed wheat exports.
- 483 bids received; offered an aggregated 2.7 million tonnes.
  - Response rate significantly less intense than in any of the three previous crop years.
    - Reflects reduced availability of higher-quality wheat and durum.
- 193 contracts concluded for the movement of 1.1 million tonnes.
  - Vancouver deliveries – 59.7%; Thunder Bay – 28.1%; Prince Rupert – 10.6%; and Churchill – 1.6%.
  - Represented 16.1% of volume shipped by CWB to port positions in western Canada.
    - Marginally below maximum 20% commitment.
- Tenders for 50.7% of the tonnage called either partially, or not at all, filled.
  - More than triple the 15.7% recorded in the 2003-04 crop year.
    - 555,100 tonnes – insufficient quantity bid.
    - 370,000 tonnes – no bid.
    - 208,800 tonnes – unacceptable bid price.
    - 34,200 tonnes – non-compliance with tender specifications.
- Proportion of tendered grain volume moving in multiple car blocks falls marginally to 89.5% from 94.3% in the 2003-04 crop year.
  - Proportion moving in blocks of 50 or more cars falls to 67.6% from 70.7% in the 2003-04 crop year.
- 84.3% of all tendered movements originated at high-throughput elevators.
  - Largely unchanged from the 86.2% observed in the 2003-04 crop year.
- CWB estimated that the overall transportation savings for the first half fell by 34.0% to \$12.6 million.
  - Underscored effects of late harvest and tight supplies of higher-quality grain.

#### Other Commercial Developments

- Government of Canada moves closer to making a decision on the disposal of the Federal covered hopper car fleet.
  - Minister of Transport consults with stakeholders at a meeting in Winnipeg.
  - Farmer Industry Partnership Proposal brought forward by farm organizations and grain companies as a new option.
- Ocean freight rates resume their climb late in the first quarter.
  - Spike by as much as 50% in November 2004 before falling back.
    - Net increase of about 10% by the end of the second quarter.
  - Attributed to a high demand for vessels to service China's growing international trade.
  - Continues to have an impact on North American grain movements.
- Unionized Canadian Grain Commission inspectors and weighers walkout in protest over lagging contract negotiations.
  - Stage rotating strikes at various Canadian ports in September and October 2004.
  - Has limited impact on GHTS activity.

## Indicator Series 2 – Commercial Relations

											2004-05	
Table	Indicator Description	Notes	1999-00	2001-02	2002-03	2003-04	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Tendering Program [Subseries 2A]</b>												
2A-1	Tenders Called (000 tonnes) – Grain	(1)	n/a	4,961.4	5,794.2	2,971.3	923.3	1,378.8	-	2,302.1	73.4%	▲
2A-2	Tenders Called (000 tonnes) – Grade	(1)										
2A-3	Tender Bids (000 tonnes) – Grain	(1)	n/a	11,400.8	11,778.1	10,288.5	1,690.8	970.7	-	2,661.6	-51.0%	▼
2A-4	Tender Bids (000 tonnes) – Grade	(1)										
2A-5	Total CWB Movements (000 tonnes)	(1)(2)	n/a	12,787.3	8,000.6	13,617.3	3,237.4	3,301.2	-	6,538.6	9.1%	▲
2A-5	Tendered Movements (%) – Proportion of Total CWB Movements	(1)(2)	n/a	27.9%	46.1%	18.1%	20.5%	11.9%	-	16.1%	-11.0%	▼
2A-5	Tendered Movements (000 tonnes) – Grain	(1)(2)	n/a	3,566.0	3,685.2	2,469.9	664.8	390.3	-	1,055.1	-2.6%	▼
2A-6	Tendered Movements (000 tonnes) – Grade	(1)(2)										
2A-7	Unfilled Tender Volumes (000 tonnes)	(1)	n/a	1,487.3	1,742.5	467.4	253.3	914.8	-	1,168.1	610.0%	▲
2A-8	Tendered Movements (000 tonnes) – Not Awarded to Lowest Bidder	(1)	n/a	96.1	126.8	72.2	13.2	4.9	-	18.1	-64.6%	▼
2A-9	Tendered Movements (000 tonnes) – FOB	(1)(2)	n/a	71.3	0.0	0.0	0.0	43.2	-	43.2	n/a	▲
2A-9	Tendered Movements (000 tonnes) – In-Store	(1)	n/a	3,494.7	3,685.2	2,469.9	664.8	347.1	-	1,011.9	-6.6%	▼
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	58.0	54.3	58.7	56.0	54.3	-	55.4	-6.3%	▼
2A-18	Railway Car Cycle (days) – Tendered Grain		n/a	14.8	19.3	14.7	15.2	17.3	-	16.6	4.4%	▲
2A-18	Railway Car Cycle (days) – Non-Tendered Grain		n/a	16.7	20.0	16.1	17.9	17.5	-	17.7	5.4%	▲
2A-19	Maximum Accepted Tender Bid (\$ per tonne) – Wheat		n/a	-\$18.07	-\$16.99	-\$23.04	-\$21.86	-\$14.12	-	-\$21.86	-5.1%	▼
2A-19	Maximum Accepted Tender Bid (\$ per tonne) – Durum		n/a	-\$14.17	-\$17.27	-\$24.07	-\$13.59	-\$19.01	-	-\$19.01	-21.0%	▼
2A-20	Market Share (%) – CWB Grains – Major Grain Companies		n/a	77.2%	72.9%	73.1%	76.3%	77.8%	-	77.0%	8.3%	▲
2A-20	Market Share (%) – CWB Grains – Non-Major Grain Companies		n/a	22.8%	27.1%	26.9%	23.7%	22.2%	-	23.0%	-20.4%	▼
<b>Advance Car Awards Program [Subseries 2B]</b>												
2B-1	Advance Award Movements (%) – Proportion of Total CWB Movements		n/a	n/a	n/a	13.9%	17.7%	14.7%	-	16.2%	78.0%	▲
2B-1	Advance Award Movements (000 tonnes) – Grain		n/a	n/a	n/a	1,888.0	574.6	484.9	-	1,059.5	96.9%	▲
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	n/a	n/a	15.0	17.6	17.1	-	17.4	3.6%	▲
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	n/a	n/a	49.9	46.0	44.8	-	45.5	-6.4%	▼

- (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 – Second Quarter 2004-05 Crop Year

#### Trucking

- Composite Freight Rate Index for short-haul trucking increased by 13.6% in the second quarter.
  - First major increase since fuel surcharges were applied in the 2000-01 crop year.
  - Reflects significant increase in input costs, particularly fuel.

#### Country Elevators

- Throughput increased by 4.7% to 14.6 million tonnes in the first half.
- The average elevator capacity turnover ratio increased by 7.4% to 2.9 turns.
- Average number of days-in-store decreased by 33.2% to 26.1 days.
  - Directly reflects the effects of a late harvest and the reduced availability of grain in the first quarter.
- Average weekly stock-to-shipment ratio falls by 35.2% to 3.5 for the first six months.
- Average posted tariff rates for elevator handling activities increased by up to 2.5% in the first half.

#### Rail Operations

- Average car cycle increased by 4.3% to 18.0 days in the first half of the crop year.
  - Significant differences in underlying empty and loaded transit time averages.
    - Average empty transit time increased 17.9% to 9.4 days.
    - Average loaded transit time decreased 7.3% to 8.7 days.
    - Partially reflects differences between CN and CP workloads.
- Proportion of grain traffic moving under incentive programs declines to 73.3%.
  - Reflects restructuring of the railways' incentive programs.
    - CP reduced discount for movements in blocks of 100-111 railcars.
  - Railways make significant changes to their shuttle train services.
    - CN eliminates discount premium.
    - CP eliminates shuttle train services entirely.
  - Grain moving in blocks of 50 or more cars accounts for 67.6% of total traffic volume.
  - Railway incentive payments estimated to have increased by 0.5% to \$33.5 million in the first half.
    - Reflects limited change in incentive grain volumes.
- Greater symmetry in CN and CP pricing actions at the beginning of the 2004-05 crop year.
  - CN's rates were generally reduced by 1.0%.
  - CP's rates to Thunder Bay reduced by 1.0% but rates to Vancouver remained unchanged.

#### Terminal Elevators and Port Performance

- Terminal throughput decreased by 0.6% to 9.6 million tonnes during the first half.
- 360 vessels loaded at western Canadian ports during the first six months of the crop year.
  - Average time in port increased by 11.4% to 4.9 days.
    - Reflects the effects of a late harvest and the reduced availability of grains.
- Average posted tariff rates for elevator storage increased by 5.8% in the first half.

## Indicator Series 3 – System Efficiency

		2004-05										
Table	Indicator Description	Notes	1999-00	2001-02	2002-03	2003-04	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Trucking [Subseries 3A]</b>												
3A-1	Composite Freight Rate Index – Short-haul Trucking	(2)	100.0	100.0	100.0	100.0	100.0	113.6	-	-	13.6%	▲
<b>Primary Country Elevators [Subseries 3B]</b>												
3B-1	Grain Volume Throughput (000 tonnes)	(1)	32,493.9	25,923.8	19,052.1	28,526.9	7,398.0	7,158.1	-	14,556.1	4.7%	▲
3B-2	Average Elevator Capacity Turnover Ratio	(1)	4.8	4.5	3.7	5.6	1.5	1.4	-	2.9	7.4%	▲
3B-3	Average Weekly Elevator Stock Level (000 tonnes)	(1)	3,699.3	2,699.8	2,502.0	2,691.9	1,829.2	2,349.0	-	2,078.7	-28.8%	▼
3B-4	Average Days-in-Store (days)	(1)	41.7	38.0	47.9	34.4	22.7	29.9	-	26.1	-33.2%	▼
3B-5	Average Weekly Stock-to-Shipment Ratio – Grain	(1)	6.2	5.4	7.1	5.0	2.8	4.2	-	3.5	-35.2%	▼
3B-6	Average Handling Charges – Country Delivery Points	(3)										
<b>Rail Operations [Subseries 3C]</b>												
3C-1	Hopper Car Grain Volumes (000 tonnes) – Province	(1)	25,659.6	18,276.6	12,271.3	19,923.5	5,319.8	4,783.4	-	10,103.2	3.0%	▲
3C-2	Hopper Car Grain Volumes (000 tonnes) – Primary Commodities	(1)										
3C-3	Hopper Car Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
3C-4	Railway Car Cycle (days) – Empty Transit Time	(1)	10.7	8.3	10.2	7.8	9.9	8.9	-	9.4	17.9%	▲
3C-4	Railway Car Cycle (days) – Loaded Transit Time	(1)	9.2	8.8	10.1	8.9	8.4	8.9	-	8.7	-7.3%	▲
3C-4	Railway Car Cycle (days) – Total Transit Time	(1)	19.9	17.1	20.4	16.7	18.3	17.8	-	18.0	4.3%	▲
3C-5	Hopper Car Grain Volumes (000 tonnes) – Non-Incentive	(1)	12,715.8	4,225.6	2,954.3	4,957.3	1,603.8	1,094.5	-	2,698.3	10.3%	▲
3C-5	Hopper Car Grain Volumes (000 tonnes) – Incentive	(1)	12,943.8	14,051.0	9,317.1	14,966.3	3,716.0	3,688.9	-	7,404.9	0.6%	–
3C-6	Hopper Car Grain Volumes (\$ millions) – Incentive Discount Value	(1)	\$31.1	\$57.2	\$37.1	\$67.9	\$17.1	\$16.4	-	\$33.5	0.5%	–
3C-7	Traffic Density (tonnes per route mile) – Grain-Dependent Network	(1)	442.3	340.8	204.1	356.7	326.9	335.4	-	331.1	-8.9%	▼
3C-7	Traffic Density (tonnes per route mile) – Non-Grain-Dependent Network	(1)	292.4	208.8	149.0	235.1	269.9	230.0	-	249.9	10.3%	▲
3C-7	Traffic Density (tonnes per route mile) – Total Network	(1)	330.3	240.5	162.1	263.8	283.3	254.7	-	269.0	3.8%	▲
3C-8	Composite Freight Rates (\$ per tonne) – Rail	(2)(3)										
3C-9	Multiple-Car Shipment Incentives (\$ per tonne) – Rail	(2)(3)										
3C-10	Effective Freight Rates (\$ per tonne) – CTA Revenue Cap	(2)(4)	n/a	\$25.28	\$24.52	\$25.72	n/a	n/a	n/a	n/a	n/a	–
<b>Terminal Elevator and Port Performance [Subseries 3D]</b>												
3D-1	Annual Port Throughput (000 tonnes) – Grain	(1)	23,555.5	18,004.6	11,806.9	18,962.0	4,874.7	4,713.8	-	9,588.5	-0.6%	–
3D-2	Average Terminal Elevator Capacity Turnover Ratio	(1)(5)	9.1	6.6	5.0	7.0	n/a	n/a	n/a	n/a	n/a	–
3D-3	Average Weekly Terminal Elevator Stock Level (000 tonnes)	(1)	1,216.2	1,113.6	1,016.5	1,069.2	899.9	1,151.3	-	1,020.6	-10.0%	▼
3D-4	Average Days-in-Store – Operating Season (days)	(1)	18.6	20.6	21.7	19.0	17.2	20.2	-	18.6	-7.0%	▼
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	4.9	4.3	4.0	4.2	5.7	-	4.9	11.4%	▲
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	\$2.9	\$0.8	\$4.7	n/a	n/a	n/a	n/a	n/a	–
3D-10	Annual Dispatch Earnings (\$millions)	(5)	\$14.5	\$7.0	\$4.4	\$20.0	n/a	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 as 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 as 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 2003-04 crop year.
- (5) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

## Synopsis – Service Reliability

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*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 indeed 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 – Second Quarter 2004-05 Crop Year

#### Port Performance

- Average weekly stock-to-vessel-requirements ratios show that sufficient grain inventories were on hand in both Vancouver and Thunder Bay to meet short-term demand, but that stocks had fallen fairly significantly from the previous year.
  - Vancouver
    - Wheat – 2.6 for the first six months of the 2004-05 crop year, down by 40.6%.
    - Canola – 2.4, down by 18.4%.
  - Thunder Bay
    - Wheat – 5.1 for the first six months of the 2004-05 crop year, up by 1.9%.
    - Canola – 1.7, down by 52.5%.
- Average stock-to-shipment ratios provide similar evidence of the ability of these ports to meet short-term demand through the first six months of the 2004-05 crop year.
  - Vancouver
    - CWB grains – 3.4 for the first six months of the 2004-05 crop year, down by 3.7%.
    - Non-CWB grains – 3.8, up by 10.9%.
  - Thunder Bay
    - CWB grains – 6.3 for the first six months of the 2003-04 crop year; up by 7.3%.
    - Non-CWB grains – 2.6; down by 29.6%.

## Indicator Series 4 – Service Reliability

		2004-05										
Table	Indicator Description	Notes	1999-00	2001-02	2002-03	2003-04	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Port Performance [Subseries 4A]</b>												
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Wheat	(1)	3.1	2.3	4.9	3.5	2.4	2.7	-	2.6	-40.6	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Canola	(1)	2.5	3.3	2.9	3.6	1.9	2.9	-	2.4	-18.4	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Wheat	(1)	5.6	4.3	6.8	4.8	4.4	6.2	-	5.1	1.9%	▲
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Canola	(1)	2.8	2.6	4.3	3.0	0.9	2.6	-	1.7	-52.5%	▼
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	3.1	4.3	3.3	3.5	3.2	-	3.4	-3.7%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – Non-CWB Grains	(1)	3.6	4.1	4.3	3.7	4.0	3.5	-	3.8	10.9%	▲
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – CWB Grains	(1)	4.6	5.5	6.6	6.0	5.5	7.8	-	6.3	7.3%	▲
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – Non-CWB Grains	(1)	3.3	2.9	5.0	3.1	3.4	2.0	-	2.6	-29.5%	▼
4A-4	Terminal Handling Revenue (\$millions) – Vancouver	(1)(3)	\$192.7	\$139.7	\$49.7	\$134.9	n/a	n/a	n/a		n/a	-
4A-4	Terminal Handling Revenue (\$millions) – Thunder Bay	(1)(3)	\$82.1	\$64.2	\$58.6	\$61.7	n/a	n/a	n/a		n/a	-
4A-4	CWB Carrying Costs (\$millions) – Pacific Seaboard	(1)(3)	\$63.3	\$49.1	\$22.4	\$52.5	n/a	n/a	n/a		n/a	-
4A-4	CWB Carrying Costs (\$millions) – Thunder Bay	(1)(3)	\$31.3	\$34.4	\$30.1	\$40.9	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 as 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 – Second Quarter 2004-05 Crop Year

#### Export Basis and Producer Netback – CWB Grains

- Changes in the CWB’s Pool Return Outlook (PRO) for 1 CWRS wheat (13.5% protein):
  - Farmer’s initial payment set at \$156.15 per tonne.
    - Represents a 26.0% reduction from the final realized price for the 2003-04 crop year of \$211.14 per tonne.
    - Reduction largely fuelled by the expectation of increased crop production in 2004.
  - PRO fell to \$204.00 per tonne by the end of the first half.
    - Represents a 30.6% gain over farmer’s initial payment.
- Recent changes in input costs:
  - Country elevator handling – up by as much as 2.5%.
  - Rail transportation – down by as much as 1.0% from most origins.
  - Terminal elevator handling – up by as much as 5.8% for storage.
- Changes in the PRO for 1 CWRS wheat, and input costs to the export basis, suggests a reduction in the producer’s per-tonne netback for CWB grains in the 2004-05 crop year.

#### Export Basis and Producer Netback – Non-CWB Commodities

- Changes in Vancouver cash price for 1 Canada canola:
  - Price falls to an average of \$313.60 per tonne by the end of the first half.
    - Represents a 19.0% reduction from the monthly average of \$387.11 per tonne for the 2003-05 crop year.
    - Reduction largely fuelled by better crop production in 2004; and changes in global market conditions.
- Recent changes in input costs:
  - Country elevator handling – up by as much as 2.5%.
  - Rail transportation – down by as much as 1.0% from most origins.
  - Terminal elevator handling – up by as much as 5.8% for storage.
- Changes in the price of 1 Canada canola, and input costs to the export basis, suggests a reduction in the producer’s per-tonne netback for non-CWB commodities in the 2004-05 crop year.

#### Producer-Car Loading

- Number of producer-car-loading sites increased by 0.8% in the first half to 496.
  - Half come from the inclusion of former BC Rail sites.
- Producer-car shipments decreased by 25.7% to 2,900 railcars in the first six months.
  - Adversely impacted by late harvest and reduced grain quality.



## Indicator Series 5 – Producer Impact

Table	Indicator Description	Notes	1999-00	2001-02	2002-03	2002-03	2003-04			YTD (1)	% VAR	
							Q1	Q2	Q3			
<b>Export Basis</b>												
Western Canada												
5A-10	CWRS Wheat (\$ per tonne)	(1)(3)	\$54.58	\$50.39	\$56.65	\$54.87						
5A-10	CWA Durum (\$ per tonne)	(1)(3)	\$67.63	\$63.05	\$73.05	\$64.72						
5A-10	1 Canada Canola (\$ per tonne)	(1)(3)	\$52.51	\$42.01	\$48.97	\$42.51						
5A-10	Canadian Large Yellow Peas – No. 2 or Better (\$ per tonne)	(1)(3)	\$54.76	\$70.97	\$83.19	\$67.75						
<b>Producer-Car Loading</b>												
5B-1	Producer-Car-Loading Sites (number) – Class 1 Carriers	(2)	415	386	380	360	363	363	-		0.8%	-
5B-1	Producer-Car-Loading Sites (number) – Class 2 and 3 Carriers	(2)	120	127	138	132	133	133	-		0.8%	-
5B-1	Producer-Car-Loading Sites (number) – All Carriers	(2)	535	513	518	492	496	496	-		0.8%	-
5B-2	Producer-Car Shipments (number) – Covered Hopper Cars	(1)	3,441	6,583	3,209	9,399	912	1,988	-	2,900	-25.7%	▼

(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 as 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 as 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.



## **Appendix 1: Program Background**

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On 19 June 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: 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.<sup>54</sup> 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 and durum. 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.

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.).

The screenshot shows the 'Producer NetBack Calculation' form with the following fields and values:

- Origin:**  Use my home location  Use this location
- Quarter:** SW **Section:** 18 **Township:** 12
- Range:** 20 **Meridian:** W1 **Province:** Manitoba
- Delivery Point and Elevator:** Pioneer Grain Company, Limited 4 BRANDON, MB [Search Elevator](#)
- Distance to Elevator (Miles):** 23
- Commodity:** Wheat **Binned Grade:** #2 CWRS 13.5 **Paid At Grade:** #1 CWRS 13.5
- Estimated Dockage (%):** 1.0 **Gross Tonnes to Deliver:** 60
- Trucking Rate:** 5 per Tonne
- Number of Trips:** 2
- Trucking Mode:** Commercial **Truck Type:** Tridom (tri-axle)
- Anticipated Trucking Premium (leave blank if none):** 3.50 (\$ per Net Tonne)
- Other Premiums (leave blank if none):** (\$ per Net Tonne)
- 

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

<sup>54</sup> 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.

Input	Results	Binned		Paid	
		Tonne	Bushel	Tonne	Bushel
Origin Point: SW 18X 12 X 20X W1	<b>CWB Pool Return Outlook</b>	\$192.00	\$5.23	\$196.00	\$5.33
Delivery Point: BRANDON	(Adj.) Freight To Vancouver				
Grain Company: Pioneer Grain Company, Limited	(Adj.) Freight To Thunder Bay				
Commodity: Wheat	Freight Adjustment Factor				
Binned Grade: #2 CWRS 13.5	<b>Applicable Freight</b>		\$32.77		
Paid At Grade: #1 CWRS 13.5	Trucking		\$5.05		
Estimated Dockage (%): 1.0	Primary Elevation		\$12.12		
Trucking Mode: Commercial	Dockage Cleaning		\$4.04		
Truck Type: Tridem (tri-axle)	<b>Sub-Total Other Costs</b>		\$21.21		
Number of Trips: 2	Trucking Premiums		\$(3.50)		
Gross Tonnes To Elevator: 60	Other Premiums		\$(0.00)		
Distance To Elevator (Miles): 23	<b>Sub-Total Producer Premiums</b>		\$(3.50)		
Trucking Premiums: \$3.50	<b>Total Export Basis</b>		\$50.48		\$50.48
Other Premiums: \$0.00	<b>Producer Netback</b>		\$141.52	\$3.85	\$145.52
					\$3.96

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

## **Appendix 3: Acknowledgements**

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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 Grain Monitoring Program (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 GMP. 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 program.

Agricore United	Mid-Sask Terminal Ltd.
Agricultural Producers Association of Saskatchewan	Mission Terminal Inc.
Agriculture and Agri-Food Canada	National Farmers Union
Alberta Agriculture, Food and Rural Development	North East Terminal Ltd.
Alberta Transportation	North West Terminal Ltd.
Alberta RailNet	OmniTRAX Canada, Inc.
Canadian Canola Growers Association	Parrish & Heimbecker Ltd.
Canadian Grain Commission	N.M. Paterson & Sons Limited
Canadian Maritime Chamber of Commerce	Port of Churchill
Canadian National Railway	Port of Prince Rupert
Canadian Pacific Railway	Port of Thunder Bay
Canadian Ports Clearance Association	Port of Vancouver
Canadian Ship Owners Association	Prairie West Terminal
Canadian Special Crops Association	Prince Rupert Grain Ltd.
Canadian Transportation Agency	Rail America
Canadian Wheat Board	Red Coat Road and Rail
Cando Contracting Ltd.	Saskatchewan Agriculture and Food
Cargill Limited	Saskatchewan Highways and Transportation
CMI Terminal	Saskatchewan Association of Rural Municipalities
ConAgra Grain, Canada	Saskatchewan Wheat Pool
Gardiner Dam Terminal	South West Terminal
Government of BC	Statistics Canada
Grain Growers of Canada	Terminal 22 Inc
Great Sandhills Terminal	Transport Canada
Great Western Rail	Vancouver Wharves Ltd. (BCR Marine)
Inland Terminal Association of Canada	Western Barley Growers Association
James Richardson International Ltd. (Pioneer Grain)	Western Canadian Wheat Growers Association
Keystone Agricultural Producers	Western Grain By-Products Storage Ltd.
Louis Dreyfus Canada Ltd.	Western Grain Elevator Association
Mainline Terminal Ltd.	Weyburn Inland Terminal Ltd.
Manitoba Agriculture	Wild Rose Agricultural Producers
Manitoba Transportation and Government Services	Winnipeg Commodity Exchange





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