Monitoring the Grain Handling and Transportation System
Supplementary Work Item

Traffic, Market and Logistical Changes in the Western GHTS: *1980 to 2010*

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Quorum Corporation

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Foreword

The federal government's Grain Monitoring Program (GMP) identified the need for ongoing supplemental studies in order to enhance and elaborate on the original design and to provide additional insight and analysis for both the Government and industry. This report includes the development of a data series and an analysis of the changes experienced by the western Grain Handing and Transportation System (GHTS) over the past 30 years.

First completed in June of 2010, this is an expanded version of what began as an accumulation of 30 years of data on the movement of grain in the Western GHTS. In addition to updated data tables (to include the 2010 crop year) this version includes a greater level of detail on the changes in the logistical and operation aspects of the GHTS as well as detailed discussions on the changes in the regulatory and market conditions (as seen in the appendices of the document).

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

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1. Overview and Objectives

As part of the Federal Government's Grain Monitoring initiative, the need for ongoing supplemental studies was identified to enhance and elaborate on the original design. This report includes the development of a data series and an analysis of the changes experienced by the western Grain Handing and Transportation System (GHTS) over the past 30 years.

The objective of this supplemental item is to examine the available data (including, but not explicitly confined to the GMP data set) in order to assess and analyze the changes in the western GHTS. It includes the development of a special data series that documents the changes in the western GHTS over the past 30 years. The analytical focus of this report is on changes in the network infrastructure, the mix of commodities produced and accompanying volumes, changes in volumes moved to various export destinations, and changes in freight and elevation rates. The study also examines the operational changes that have occurred as a result of, or been driven by, the changes in commodity mix, volume and the logistics approaches undertaken.

The focus of the data analysis in the report covers:

- Change in production – tonnes produced by commodity (including grade segregations),
- Change in consumption – domestic use versus export volume and destination,
- Change in infrastructure – evolution of rail and elevator networks,
- Changes to tariff rates charged by railways and grain companies (freight, elevation and cleaning),
- Changes in "on farm" storage
- The gradual increase in the use of containers for the movement of all grains.

This report also examines the operational changes undertaken by Canada's grain industry (producers, grain companies and railways) to respond to both the infrastructure and world market changes while improving efficiency (capacity and cost reduction) and reliability within the system.

Lastly, a review of potential future issues (e.g. requirements for traceability and food safety) viewed in the context of the event of the past 30 years concludes this review.

2. Background

Factors Driving this Review

The interdependence between Canada's agriculture industry and the transportation network has long been key to the country's economic growth and the foundation of our position in global agricultural markets. The history of Canada's economic growth, particularly in the west, has relied heavily on agricultural exports. The transportation sector, particularly railways, has been critical to the country's success in those markets. Conversely, the growth of the Western Canadian rail industry and its network of rail lines were founded on the growth of agricultural exports, such that railways continue to depend on grain movements to provide a significant portion of their ongoing revenues – most recently estimated at between 19% (CN) and 23% (CP) annually[1].

As a consequence, the agriculture and railway industries have long endured a tenuous relationship with clear interdependencies and conflicts. For example, railways have grown to view the agriculture market, grain in particular, as an inhibitor to productivity as their markets are seasonal and thereby unable to provide consistent month to month volumes for a railway to plan its operations. The grain industry is frustrated by the railways seeming inability to provide consistent service and provide ongoing capacity to meet the industries demand, therefore inhibiting the industry's ability to grow and increase overall volumes, particularly to high value, time sensitive markets.

Another distinction of the Canadian grain logistics chain is the extended length of haul to export position when compared to its global competitors. While Western Canadian grain travels between 900 and 1,200 miles to export position, other countries, such as Australia, Brazil or any of the European countries enjoy a much shorter haul in the range of 200-250 miles. This places competitors at a distinct advantage and places greater pressure on the Canadian system to be more efficient. The long distance Canadian grain has to travel results in transportation being proportionately, the largest cost for the production of exported grain. Combined with the export focus of Canadian production (45% of agriculture and agri-food products are exported) this creates a dependence of agriculture on a strong transportation network to efficiently move production to export position. As such, the rail mode provides the Canadian grain industry with the singularly most effective logistical means to compete with its global competitors.

The GHTS of 1980 was an integrated operation involving truck, rail and seaway modes to link Western Canadian grain production to over 3,000 country elevators through to ports on the three coasts and into the US and Mexican markets. The GHTS has seen a significant change to its market composition, commodity mix and the subsequent approach to the logistics of grain handling over the past 30 years. Regulatory changes that began with the passage of the Western Grain Transportation Act, progressed through the elimination of the "Crow Benefit" and subsequently saw the replacement of

[1] Source: CN and CP Annual Reports for years 2008, 2009

regulated freight rates for grain by the revenue cap, contributed to the evolution and change in the commodity mix produced and marketed in western Canada. At the same time, larger forces have been reshaping the international marketplace into which Canadian products are sold. The simultaneous explosion in container utilization has provided logistical alternatives to Canadian grain exporters not anticipated at the beginning of this timeframe.

The Changing Grain Market

The marketing of grain in the 21st century reflects the evolutionary growth of the industry itself, and the geographic challenge inherent in moving products from a region that is far removed from its markets. While Canadian grain marketing faces many of the same challenges as it has in the past, it must also confront new ones in order to adapt to a highly competitive environment. Changes that have been evolving since WWII have continued to accelerate through the last 30 years. Changes in the mix of commodities, the demand and location of markets for these commodities, agronomic technologies, and the structures and technology involved in the handling and movement of grain have been the key influences on the marketing of grain from 1980 to the present.

Research and development have led to increases in production of all commodities in the last 30 years with the total volume of all crops being almost twice that produced in 1979. And while wheat production in the last 30 years has remained at approximately the same level, its share of total grain production has declined. Production of pulse crops (peas and lentils) began in the late 1980s and has rapidly increased to account for approximately 10% of crop production (30 times the production witnessed in the 1970s). Canola production has also increased over the same period with current production levels two to three times those of the late 1970s.

Asia has continued to be a growing market for Canadian grains, oilseeds and specialty crops, although exports have fluctuated significantly from year to year. Free trade agreements with the US and Mexico have also generated an increase in the demand for oilseeds and specialty crops. The location and sizes of markets have become increasingly diverse from year to year.

The real price for wheat and other traditional grains has remained comparatively low over the last 30 years and the financial returns derived from the sale of canola and specialty crops (particularly lentils and peas) have served to increase diversification. Compounding this trend has been the increased spending on crop research and development as the acreage of these crops has increased.

The marketing of grain has faced new challenges stemming from the increased diversity of grains. Different handling and transportation techniques are required in order to preserve the value of commodities such as lentils, which shatter easily and require special handling equipment. As the quantity of production of these grains has grown, preliminary processing (cleaning and bagging) of these goods as well as other grains (e.g. crushing of canola) has also developed.

This has resulted in increased requirements for marketing both the raw grains and the processed products and byproducts (e.g. canola meal and dried distillers grains). The marketing demands include specialized handling techniques (e.g. using conveyor belts), the use of containers and an increased number of small volume sales (e.g. 1000 tonnes).

Increased volumes of production and variety of crops, combined with aging handling infrastructure resulted in the construction of new facilities for the handling and storage of grain both on-farm and by grain companies. The grain handling system rapidly moved towards a just-in-time model, where grain was brought into the elevator system only when it was needed for a sale. As a result there was an increased demand for storage on farm and an increase in the distance from farm to primary grain elevator, most of which had been replaced by new high-throughput facilities. The net result of changes to the delivery network saw that the system shrank to approximately 350 points by 2010. This was aided by technological developments in road transportation, particularly the advent of larger trucks.

The dominance of the CWB in the marketing of grain from the Canadian prairies has declined as wheat and barley assumed smaller proportions in the quantity of crops produced. In addition, the CWB has developed a variety of options which have also changed the process of marketing and handling of grain. The changing mix of commodities has led to a greater variety of marketing structures and a more diverse set of players in meeting domestic and export demands. While consolidation has continued to occur in some aspects of the grain handling business (e.g. the replacement of the three prairie Pools, and United Grain Growers with Viterra), other smaller niche market players have emerged. In addition, grains such as lentils are often subject to peak demand periods due to their use in special cultural events. Meeting the specific timing needs for the marketing of these commodities has also challenged the system.

While a more diverse set of players has developed over this period of time, none have individually exhibited the same level of market power as the CWB was able to show a quarter century earlier. The changes seen in market power over the period have challenged the traditional approaches to grain marketing, and resulted in a more complex response to the competing demands being placed on the grain handling and transportation system in an evolving marketplace.

A detailed discussion of the Canadian grain marketplace evolution can be found in Appendix A.

The Changing Regulatory Framework of the GHTS

The movement of export grain by rail in Canada remained highly regulated in 1980. Moreover, the freight rates that applied on these shipments were essentially the same ones that had been set in place more than 80 years earlier. Widely known as the Crow's Nest Pass Freight Rates – or more simply as the Crow Rate – they arose out of an agreement originally struck between the Canadian Pacific Railway and the Government of Canada in 1897. The recognition of a need to modernize the GHTS led to changes in the regulatory structure of the industry. There were several changes to the regulatory structure since 1897, with two in particular falling into the time frame under discussion in this report and discussed below. These regulatory changes, and the evolving global markets, had a large

impact on the grain marketing system. The more prominent changes prior to that are discussed separately in Appendix B.

Western Grain Transportation Act

The Western Grain Transportation Act of 1983 was the first regulatory step, prescribing a government subsidy mechanism that became known as the Crow Benefit. In effect, it provided for a gradual escalation in the freight rates to be paid by farmers, with the government subsidizing any shortfall in revenue to the railways. The Act also committed the federal government to pay for the rehabilitation of a number of prairie branch lines, and to purchase additional hopper cars for the movement of grain. Service and efficiency improvements on the part of the railways were also mandated. In support of these objectives, a new entity, the Grain Transportation Agency, was broadly charged with ensuring that the grain transportation system was operated in an efficient, reliable and effective manner.[2] The role of the Canadian Transport Commission was modified somewhat, as it now had to define the freight rates that were to be paid by farmers as well as the size of the Crow Benefit payable to the railways.

None of this was affected by the regulatory changes that the government brought forward through amendments to the National Transportation Act in 1987. These were aimed largely at granting the railways a greater degree of commercial freedom in response to the deregulation of the American railway industry several years earlier. Moreover, it was also intended to stimulate competition between the carriers themselves. Among its major reforms were the introduction of confidential contracts, the prohibition on collective rate making, the liberalization of interswitching limits, the establishment of competitive line rates, the facilitation of abandonment and line transfer procedures, and the adoption of final offer arbitration in rate disputes.

By the 1990s, however, there was a growing realization that the subsidization of the transportation costs associated with moving grain was seriously distorting the regional economy. At the same time, there was a new focus on the part of the federal government to tame its growing budget deficit. This brought pressure to bear on subsidy programs such as those embodied by the WGTA. Moreover, the federal government argued that the Crow Benefit constituted a farm subsidy that was no longer allowed under the General Agreement on Tariffs and Trade signed in 1994.

Canada Transportation Act

These forces resulted in a broad policy change. In February 1995, the federal government passed the Budget Implementation Act, which, among other things, eliminated the WGTA effective 1 August 1995. The repeal of the WGTA eliminated the payment of the Crow Benefit to the railways for the movement of grain and related products. In

[2] The Agency evolved from the previously established Grain Transportation Authority, which was created in 1979 to oversee the allocation of railcars between competing interests and to promote greater efficiency in the grain handling and transportation system.

conjunction with this, the federal government passed the *Canada Transportation Act (CTA)* in 1996. Among other things, it eased the process associated with selling or abandoning rail lines, eliminated the need for oversight in railway mergers and acquisitions, and removed subsidies for uneconomic railway services.[3] It also redefined the regulatory framework tied to the movement of grain. In effect, it delineated a mileage-based set of maximum freight rates that were to be borne by the farmer directly.[4] As a result, shippers saw their freight costs more than double in the 1995-96 crop year.

To compensate for the drop in land values that was expected to result from the elimination of the WGTA, the government provided landowners with a one-time payment of $1.6 billion under the Western Grain Transition Payments Program. The WGTPP was allocated to each western province on the basis of their historical shares of the WGTA subsidy over the 10 years that it was in place. It also established the $300 million Western Grain Transportation Adjustment Fund to aid in the industry's adjustment to these changes.

But the policy changes initiated through the repeal of the WGTA and the passage of the CTA did not end in 1996. The Canadian government remained committed to advancing reforms aimed at improving the efficiency, accountability, and competitiveness of the railway industry in Canada. Much of the focus in this policy initiative stemmed from the Government's desire to remove the regulatory protection accorded grain. In 1997, former Supreme Court justice Willard Estey was commissioned to undertake another review of the GHTS. His report, issued a year later, made a number of recommendations that ultimately laid the foundation for the reforms brought forward as amendments to the CTA in 2000. Chief among these was the replacement of the maximum rate scale with an annual cap on the revenues that CN and CP could earn from the movement of grain.

The adoption of the revenue cap granted the railways a significant degree of commercial freedom. They now had the power to set the freight rates for the movement of grain according to market conditions, so long as the total freight revenue generated fell within the limits of the cap defined. Any revenue in excess of this limit, plus a penalty, was to be surrendered. In essence, the revenue cap marked a shift away from the regulatory environment that had characterized so much of the preceding century. The revenue cap is discussed in greater detail in Chapter 3 below: *A Review of rate and pricing approaches within the GHTS.*

A detailed discussion of the Canadian GHTS regulatory history can be found in Appendix B.

[3] The earlier moratorium on prairie branch line abandonment was subsequently lifted by the Canadian Transportation Agency – the successor to the National Transportation Agency, and which replaced the Canadian Transport Commission in 1987.

[4] Although the abolishment of the WGTA eliminated the subsidy to the railways, the federal government remained committed to setting rates on a cost-recovery basis. The Canadian Transportation Agency continued setting rates so that they covered 100% of the railways' variable costs, plus a 20% contribution toward its fixed costs.

3. Market and Regulatory Influences on the GHTS

Market Influences on GHTS Delivery Processes

The impact of the markets served has an overriding influence on how the Canadian GHTS operates. While any small change in a buyers location, size of order or any of the terms that are associated with it can change the specific movement, there have been larger, more specific events that have made larger shifts in the Western Canadian GHTS that are worthy of mention.

As discussed in Section 2, the changes in the export markets we serve have significantly impacted on logistics of grain movement. Growing markets for canola and other higher value commodities have continued to displace cereal (CWB) grains. A shift from European to Asian markets has led to a shift from Eastern ports and Thunder Bay/ Seaway routings to Western ports.

The modal shift from bulk to container shipping that resulted from a combination of shifting market demand and new logistical approaches has led to one of the more significant shifts in the GHTS in its history. With the advent of larger vessels, bulk movement is tending to larger and larger lot sizes, while some sales necessarily tend to the smaller, "just in time" inventory management approach. The containerization alternative provides Canadian processors and producers with the means to compete effectively in these markets. Sales made in smaller lot sizes, seen predominantly in special crops movements (lentils etc), lends itself well to movement in containers. The buyers of some of the products that have entered this market have embraced the "global economies" opportunities and source their product at origin. The flip side of this approach will often require the buyer to use the shipping container for storage when the shipment arrives. Container movement affords them the ability to take advantage of this opportunity.

There have been challenges for Canadian shippers looking to utilize containers in the movement of grains. In particular, producers' ability to gain access to empty container capacity has been an issue. The entry into these markets began in the 1980's when capacity was ample and railways and shipping lines were looking to expand and cement the container marketplace in Canada. In the past 5 years (the economic downturn being the exception) shipping lines and railways have taken the opposite approach and looked to de-market movements of lesser profitability. As such, grain shippers have been forced to alter their logistics patterns in a manner that sees them loading hoppers cars destined to port

locations for transloading to containers. (see Quorum Supplemental Report – Containers in Canada, Nov 2008). Despite these challenges the use of containers to export grain continues to grow.

Review of rate and pricing approaches within the GHTS

The rate structure prevailing in 1980 effectively encompassed what had been laid down statutorily in 1927. Known as the Crow Rate, the freight rates applicable on the movement of western Canadian grain up to this point in time had remained unchanged for more than 50 years. In as much as rates were established as a facet of public policy by the Government of Canada, the railways were stripped of all pricing authority that would normally be accorded them. This stood in marked contrast to the pricing authority they had been exercising on other commodities since passage of the National Transportation Act in 1967.[5]

Regulated Freight Rates

It was only with the passage of the Western Grain Transportation Act in 1983 that the freight rates governing the movement of grain in western Canada began to change. Even so, the railways were still not vested with the power to set these rates themselves. That responsibility remained with the Canadian Transport Commission – and its later successor, the National Transportation Agency. But public policy had shifted in the wake of the financial losses that were being incurred by the railways, and the WGTA was intended to reshape the approach taken in dealing with the losses arising from the movement of grain as an imposed public duty.

Central to this was the view that the railways should be fully compensated for the cost of moving grain, and that the farmer should bear a larger portion – and eventually all – of the costs associated with getting grain to market. To this end, the WGTA was conceived as a transitional mechanism that would provide for a gradual escalation in the freight rates to be borne by producers. Although tied to the rate of inflation, this escalation was also to be governed by the world price of grain.[6] When gauged against the actual costs incurred, any shortfall in grain revenue would be paid to the railways through a direct subsidy, known as the Crow Benefit.[7]

A similar approach was adopted in 1996 following the passage of the *Canada Transportation Act*. The newly created Canadian Transportation Agency (Agency) was mandated with setting the rates that would ultimately be paid by the farmer, although this would now reflect the full cost – rather than just a portion – of the transportation costs. Based on

[5] The National Transportation Act of 1967 partially deregulated the railway industry in Canada, and granted the railways a greater degree of autonomy in setting freight rates on all commodities save grain.

[6] The limit was intended to cap freight at no more than 10% of the world grain price.

[7] The Crow Benefit was determined by the Canadian Transport Commission on an annual basis, but also tied to a detailed costing review conducted every four years.

distance, this became known as the Maximum Rate Scale. Since these rates were set by the Agency, pricing still remained outside of the carriers' purview.

It is important to view this in a context that recognizes that as changes in the regulatory environment were approaching railways were also adapting to a changing market environment. One of the most visible facets of this was in the modernization of the elevator system. In the post World War II era, an increasing number of elevators were moving to replace their on-site generators with direct electrical power; larger scales and longer movable spouts were being introduced to support the loading of hopper cars rather than boxcars; wooden legs were being replaced with metal ones; new driveways were being constructed to accommodate longer trucks; and truck-dumping mechanisms were being improved.

Beginning in the 1950s, such advances were spurring a consolidation in the number of elevators operated by the grain companies. Moreover, this brought about the construction, throughout the 1960s and 1970s, of ever larger facilities, separated by substantially greater distances. One of the first major changes in elevator design came towards the end of this period, when Alberta Wheat Pool built the first of its Buffalo slope facilities at Magrath, Alberta. Still others adopted the model of larger inland terminals with immense concrete silos for storage.

The railways were spurred into allying themselves with the consolidation efforts of the grain industry at large. They recognized that efficiencies could be gained from serving a smaller number of larger facilities. To this end, they introduced a series of discounts aimed at enhancing the efficiency of the system through the consolidation of grain shipments into larger car blocks beginning in 1987. Initially, these discounts were set at $1.00 per tonne for movements in blocks of at least 18 cars; $2.00 per tonne for those in blocks of 50-99 cars; and $3.00 per tonne for those in blocks of 100 or more.

It must be remembered that at that time the prairie elevator network still encompassed some 1900 facilities, most of which were conventional crib-style wooden structures. Moreover, few had the supporting track needed to permit loading in but the smallest of the car blocks specified. Nevertheless, these incentive programs caught the attention of the grain industry at large, stimulating not only their existing consolidation efforts but the construction of even larger high-throughput facilities. By the mid 1990s, the grain handling and transportation system was rapidly being transformed, with the iconic conventional elevator increasingly being displaced by these new giants. With the closure of hundreds of these smaller elevators, the tonnage originated by the branch line railway network soon began to decline. This allowed the railways to adjust their service levels in response and to realize some significant cost savings.

Because such cost reductions figured into the calculation of the Crow Benefit under the WGTA, the cost of transportation remained remarkably stable throughout the late 1980s and early 1990s, amounting to about $34.00 per tonne on a movement from central Saskatchewan.[8] The costing review completed in 1994 actually revealed that these

[8] The rates cited here pertain to shipments from Brass, Saskatchewan, and are based on data supplied by the Canadian Grain Commission.

costs were on the decline.[9] This was factored into the setting of the maximum rate scale adopted a year later, which saw the cost of transportation from this area effectively reduced by some $3.00 per tonne to about $31.00 per tonne. Even in this era of controlled rates, the cost of transportation never rose above $34.00 per tonne.

Notwithstanding the beneficial impact on freight rates from declining railway costs, there was a symbiotic aspect to the incentive programs being offered by the railways. The more the railways offered as an incentive, the more the grain industry was motivated to rationalize its elevator network in order to avail itself of them. Similarly, the smaller the elevator network became, the greater the savings the railways could realize from driving down their operating costs. Accordingly, the railways moved to increase their incentives for larger block movements. By the close of the 1999-2000 crop year, the minimum threshold had been raised from 18 cars to 25 cars, with the discount on shipments in blocks of 50-99 cars increased to $3.00 per tonne, and those in blocks of 100 or more cars to $5.00 per tonne.[10]

The Revenue Cap

The first significant change to this approach came in 2000, as a result, of the regulatory reforms put forward under amendments to the *Canada Transportation Act*. Chief among these was the replacement of the maximum rate scale with an annual cap on the revenues that both CN and CP could earn from the movement of regulated grain. At this juncture, the railways assumed full responsibility for the setting of freight rates on grain. Although the transition to a cap on carrier revenues also called for a rollback in total revenues, the railways effectively perpetuated the mileage-based maximum rate scale that had prevailed since 1996.[11] In the revenue cap's first few years of operation, these rates were modified by a value that incorporated little more than an adjustment for inflation.

This does not mean that the railways took an indifferent approach to the pricing of their services. On the contrary, the strategy they chose to employ demonstrated considerable thought. What must be remembered is that the new regime, while providing a real constraint on overall revenues, gave the carriers a significant degree of latitude in structuring not only their freight rates, which would be payable by the farmer, but in any offsets[12] that might legitimately be used to reduce total revenues. The most significant item in this arsenal was the incentive discount that the railways had been offering for larger grain shipments.

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[9] In essence, any cost savings realized by the railways could be pocketed until the next costing review, at which time it would effectively be "clawed back" as an efficiency improvement. This provided the railways with an incentive to reduce costs in the short term. The costing review completed in 1994, and based on data from 1992, revealed that the railways had managed to reduce their costs.

[10] The $1.00-per-tonne discount that applied on movements in blocks of 18-49 cars remained unchanged when the minimum threshold was raised to 25 cars.

[11] This revenue cap was set at a level 18% below the estimated grain revenues that would have been derived without the reform, and came into effect on 1 August 2000. The revenue cap has specific annual limits for both CN and CP, which are adjusted each year by the Canadian Transportation Agency to reflect changes arising from inflation, the actual grain tonnage moved, and the average distance over which it was moved.

[12] Offsets refers to such direct pricing tools such as the multi car block incentives or for the less transparent offsets such as contributions to the industrial development of specific elevators which is amortized over the projected life of an elevator, as well as certain other operating expenses as deemed acceptable by the CTA.

Implicit within the bargain struck between the railways and the federal government, that led to the establishment of the revenue cap, was the notion that in exchange for an 18% rollback in base revenues, all future productivity gains made by the railways would accrue to their own benefit.[13] In short, the railways were not required to share any of these future cost savings with producers. This created a powerful inducement for the railways to reduce their costs even further. One of the key means by which to realize such savings rested in further promoting the movement of grain in larger car blocks. As long as the railways could leverage the payout of larger incentive discounts with an even greater total cost saving, there was a financial advantage to be had from doing so. To accommodate this, the railways chose a two-pronged approach that involved partially reducing their published single-car freight rates while increasing the incentive discounts applicable on the movement of grain in multiple-car blocks. As of August 1st, 2000, shipments in blocks of 50-99 cars were raised to $4.00 per tonne, and those in blocks of 100 or more cars to $6.00 per tonne.[14]

Although the revenue cap accorded both CN and CP greater freedom in setting freight rates, their pricing actions remained largely similar through to the end of the 2002-03 crop year. At the outset of the 2003-04 crop year, both carriers broke with this practice and began to exercise a greater degree of autonomy in their pricing actions. Over the course of the next four crop years, a process involving the setting of new rates at the beginning of the crop year followed by at least one adjustment in the second half emerged. Although all of this was aimed at maximizing the revenues that the carriers were allowed to receive under the revenue cap, there were equally significant changes to the structure of their multiple-car block incentives. CN was the first to eliminate its discount on the movement of cars in blocks of 25-49 cars, although CP cut its discount on such shipment to $0.50 per tonne before also eliminating it two years later. CP also modified the discount applicable on movements of 100 or more cars, becoming the first carrier to increase it to $7.00 per tonne. Further modifications ensued, with the minimum threshold on CP movements later being increased to 56 cars.[15] This was combined with reductions in the discount applicable on shipments in less than trainload lots (100 cars in the case of CN, and 112 cars in the case of CP).

The 2006-07 crop year brought even more changes to the prevailing rate structure. The most striking element in this was CN's decision to phase out its wholesale per-tonne rates, and to replace them with commodity-specific, per-car charges.[16] And while CP did not immediately follow suit with a similar change to its structure, both carriers increased their single-car rates substantially in the face of mounting fuel costs. In addition to finalizing the transition to per-car

[13] Under the provisions of the WGTA, any such productivity gains were effectively "clawed back" through a periodic costing review. Since this mechanism was integral to the cost recovery approach used to define the Crow Benefit, it was effectively abandoned when the WGTA was repealed in 1995. Nevertheless, the idea that a portion of the railways' productivity gains should continue to be shared with producers never really diminished. The idea of an 18% rollback in the setting of the railways' base revenues was aimed at appeasing this segment of the stakeholder community.

[14] In addition to the general discounts cited, the railways also provided incentive discounts for shippers who committed to move a multiple number of trainload lots (100 or more cars) in a specified period of time.

[15] The discount was later widened to apply on movements in blocks of 56-111 cars.

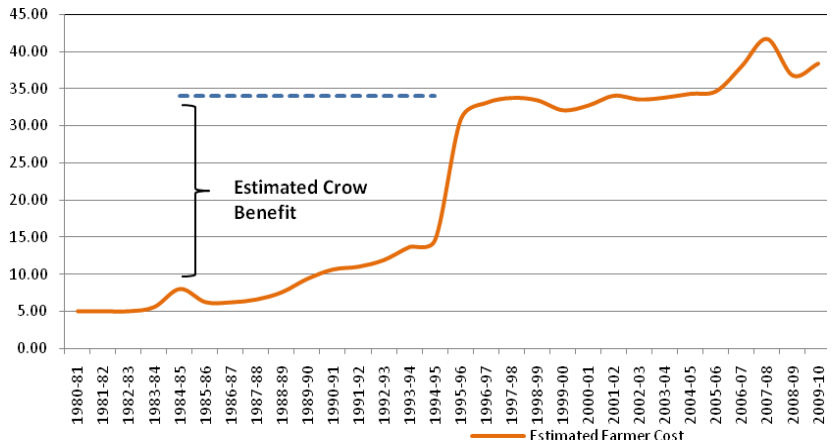
[16] In adopting per-car rates, CN grouped these rates according to the average loading weights for commodities having similar densities. As a result, the per-car rates published for a given group differ from those published for another. Moreover, it became far more complex than the non-discriminatory grain rates that existed previously.

charges, the 2007-08 crop year brought about a renewed emphasis on differential pricing. The more substantive rate increases applied on shipments to Thunder Bay and Churchill, rather than those moving to the west coast, made this especially evident. Further, CN widened the advantage on single-car movements in favour of Prince Rupert to about 10% below that of Vancouver.[17]

Layered on top of this was the initial move towards seasonal pricing, which tied rates to the prevailing demand for railway carrying capacity at various points in the crop year; this introduced a new element of complexity to the movement of grain, with the railways' single-car rates either rising or falling with changes in seasonal demand. This pattern, however, was unduly complicated in the 2008-09 crop year by virtue of the unusual considerations that arose from the legal challenges brought forward by the railways.[18] As a result, the single-car freight rates posted during the 2008-09 crop year initially moved sharply higher, and then sharply lower. This meant that the single-car freight rates in place at the end of the 2008-09 crop year were sharply lower than those observed at its opening.

The historical impact of all of this can be seen more clearly in figure 1, which depicts how the per-tonne rate on the movement of wheat has increased since the 1980-81 crop year. As can readily be observed, this rate has increased more than sevenfold over the course of the past three decades, climbing from about $5.00 per tonne in the 1980-81 crop year to over $38.00 per tonne in the 2009-10 crop year[19].

Figure 1 - Freight Rate for Wheat Moving from Brass, Saskatchewan (dollars per tonne)



In addition, both carriers again moved to increase the monetary incentives they offered on multiple-car blocks. By the close of the crop year, the discounts offered by CN on the block movement of 50-99 cars had increased from $3.00 per tonne

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

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

[19] Figures in the assessment are nominal amounts. When indexed with 1980 as the base year, the index for August 1995 is 2.096, reflecting a value of $10.58/ tonne in comparison to the $5.00/ tonne Crow rate. In August of 2009, the index would rise to 2.743 and the rate to $13.72/ tonne. (Source Bank of Canada CPI records; Quorum Analysis of rates)

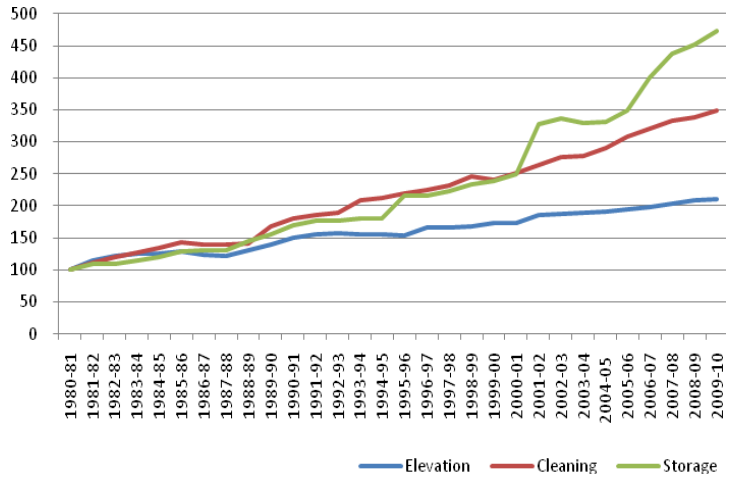
to $4.00 per tonne. At the same time, the incentive tied to shipments of 100 or more cars was raised from $7.00 per tonne to $8.00 per tonne. In comparison, CP increased the discount it offered on movements in blocks of 56-111 cars from $4.00 per tonne to $5.00, and for shipments in blocks of 112 cars from $7.00 per tonne to $8.00 per tonne.

Changes in Grain Company approach to pricing

The GHTS in western Canada is comprised of a great number and variety of grain companies as well as their facilities. These companies range from fully integrated handlers, with facilities at county and port position to companies with stand alone country collection facilities. The larger handlers have diversified operations with processing interests such as oilseed crushing, flour milling, cattle feedlots, etc. and farm supply centres that provide seed, fertilizer, chemicals and related items to producers.

For the grain handling divisions of these companies, the primary source of revenue is through the charges for services provided. These include such items as elevation, cleaning and storage of grain. All licensed handlers are required to post "maximum" tariffs with the Canadian Grain Commission. These tariffs can be adjusted at any time, but place an upper limit on the charges permitted for a given service. Figure 2 shows the change in the average handling charges based on the posted rates for country delivery points over the past 30 years.

Figure 2: Average Maximum Primary Elevator Tariffs (Index: 1980-81 = 100)



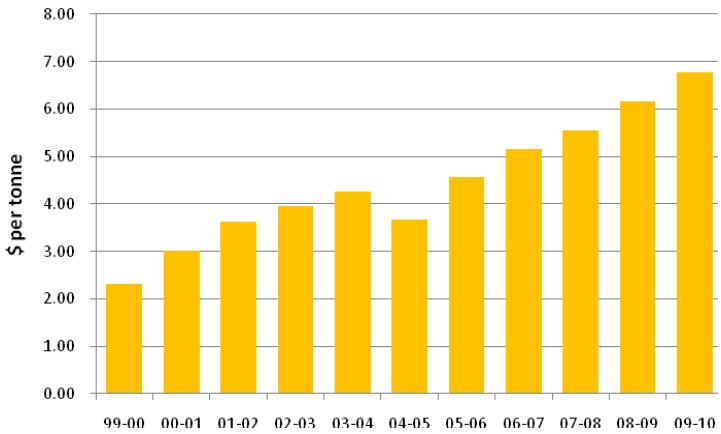
The charges are indexed with the base being the 1980-81 crop year. Charges for elevation generate the largest portion of revenue and although they have more than doubled, they have risen at the slowest pace. The western Canada average elevation tariff has risen from $6.95 per tonne at the beginning of the period to $14.64 per tonne in the 2009-10 crop year.

Analysis undertaken by the Grain Monitor suggests that for elevation and cleaning, grain companies charges are at or very near the maximums posted. Although maximum storage tariffs are also posted, negotiations are likely to result in actual charges being somewhat below the maximum.

Cleaning charges are the second largest source of revenue. They have increased nearly 200% over the past three decades, rising from an average of $1.86 per tonne in the 1980-81 crop year to $6.50 per tonne in 2009-10. Although the average maximum storage tariffs posted by grain companies have risen more than 350% over this timeframe, it does not necessarily reflect the change in actual charges.

There are a number of methods that grain companies use to compete to get grain to their elevator driveways - what they refer to as their toolbox. Since the 1999-2000 crop year, the Grain Monitor has been tracking the competitive trucking premiums that are offered as per tonne incentives for deliveries. Figure 3 shows how, for 1CWRS wheat, these premiums have increased by over 150%, from an average of $2.32 per tonne in 1999-2000 to $6.78 in the 2009-2010 crop year. In addition to trucking premiums, grade promotions, discounts on farm supplies, favourable credit terms, or even the absorption of trucking cost, are also employed. These benefits, which flow to producers, are not consistently tracked through Grain Company accounting processes and therefore, no attempt is made to quantify them.

Figure 3: Trucking Premiums for Wheat (dollars per tonne)



Changes in the Corporate Market Structure of the Grain Industry

In the period prior to 1980, the over 3,300 country elevator facilities were principally owned and operated by seven grain companies. While this allowed for healthy and intense competition, the structure that existed then does not resemble the one that exists in the Canadian grain industry today. In 1980 producer owned "co-operatives" were the dominant grain handlers. Over the next thirty years a series of mergers plus new entrants – including multi-national and domestic ventures - have shaped the more corporate structured industry that is seen today.

For the purposes of analysis and discussion, this report has classified the existing industry into three categories, as described below. Table 1 below summarizes the difference in the total numbers of elevators while in Appendix C, a detailed table can be found that illustrates in detail the changes:

Railways

In the early 1990s, the Government of Canada decided to privatize Canadian National Railways (CN). In preparation for this, the company moved to significantly enhance productivity, making significant reductions to its network as well as to the ranks of its employees. On November 17, 1995 CN's initial public offering ended the Canadian Government's railway ownership position. CN now trades publically on the Toronto and New York stock exchanges.

Following CN's privatization, the company embarked on a series of major acquisitions, intended largely to strengthen its position in the North American marketplace. These included the Illinois Central in 1998, the Wisconsin Central Transportation Corp in 2001, Great Lakes Transportation and the BC Rail in 2004, and the Elgin, Joliet and Eastern Railway in 2009.

In 2001, Canadian Pacific embarked in a breaking up of the parent company with all of its attendant businesses sold off as independent concerns. The rail division was recast as the Canadian Pacific Railway (CPR) and emerged as a stand-alone entity. It to now trades publically on the Toronto and New York stock exchanges.

The CPR's first major expansion following this divestiture came in 2007 when it purchased the Dakota, Minnesota and Eastern Railroad. The transaction included the Iowa, Chicago and Eastern Railroad and other affiliated companies.

Grain Companies

The grain industry today is made up of eight corporate entities, which together control between 70 and 80% of the total grain movement. Of these eight, five have a heritage in the western GHTS dating back to the period prior to 1980. Viterra, now the largest grain company, which was formed from mergers of the four major grain pools (Alberta, Saskatchewan and Manitoba Wheat Pools and United Grain Growers) is the only one that is publicly traded. Richardson International (formerly Pioneer Grain and James Richardson International), Cargill Canada (a subsidiary of the US parent) Patterson Global Foods (formerly NM Patterson Grain), and Parish and Heimbecker are all privately held.

There were three multi-national entrants to the western Canadian GHTS. Archer Daniel Midlands (ADM), Louis Dreyfus, and Bunge established primary elevation operations across the country in the early 1990's.[20] A fourth company, ConAgra entered the Canadian market at the same time but has since withdrawn, selling their assets to Richardson Grain.

Together, these companies operate 255 elevators of 365 across Western Canada out. (see Appendix C for detailed table).

Table 1 – Comparison of 1980-81 Facilities vs. 2009-10 Crop Year

	CROP YEAR	
	1980-81	**2009-10**
Primary Facilities (total count)	3,324	323
Index	*100.0*	*9.7*
Storage Capacity (000 tonnes)	8,748.6	5562.9
Index	*100.0*	*63.6*
Process Facilities (total count)	33	42.0
Index	*100.0*	*127.3*
Storage Capacity (000 tonnes)	602.3	769.7
Index	*100.0*	*127.8*
All Facilities (total count)	3,357	365.0
Index	*100.0*	*10.9*
Storage Capacity (000 tonnes)	9,351.0	6332.6
Index	*100.0*	*67.7*

Terminal Elevator Companies

In the mid 1970s a group of producers in Southern Saskatchewan joined together in the belief that an independent inland terminal operation would provide them with greater benefits than if they continued to use the services of existing major grain companies. Weyburn Inland Terminal (WIT) began operations in 1976 and was the first of seventeen independent grain terminal operations that would eventually be established in Western Canada. Of those seventeen, fourteen continue today, operating twenty-four facilities across Western Canada. Three terminals that began as independent operations continue to operate today under the ownership of larger grain companies.

[20] ADM and Bunge have purchased or established primary elevators, although these are relatively few and are focused on sourcing products for their own processing facilities.

Independently owned inland terminaling operations have become an integral part of the Western GHTS and have, to some degree, followed in the tradition of the prairie pools of the early 1900's as the producer's means of providing a competitive alternative to the larger grain companies.

Other Grain Elevation Operators, dealers and processors

Over the course of the past thirty years, market opportunities have brought new players into the industry. These range from seed processors to specialty grain dealers. While Table 1 covers only licensed primary and process elevators, the special crops processors and dealers have become an integral part of the Western GHTS as it continues to diversify.

The consolidation of the GHTS has also created asset related opportunities for specialized grain operations to establish themselves in the market place. Larger grain companies often sold older conventional facilities that were scheduled to be abandoned to small farm based operators. A condition of some of these sales was that they could not be used commercially for a defined period following the sale. In the past few years, as these terms expire, new operations have established themselves. These operations range from food processors to organic food handlers.

The fastest area of growth within the GHTS, not displayed in the licensed elevator listing, is the pulse and other special crops sector. Handled primarily by dealers and processors, this sector has grown from less than 3%, 30 years ago to almost 11% of the production and movement of all commodities in the western GHTS. The mode of movement of pulses and specialty crops varies from hopper cars to domestic intermodal containers, with the majority being directed to a port reload situation where product is trans-loaded to ocean-going containers for export. In Canada, the export of grain in containers has grown from virtually nothing in 1980 to almost 14% in the 2007-08 crop year (the last year for which this statistic was available).

4. Volumes, Production, Utilization Patterns and their Impact on Markets

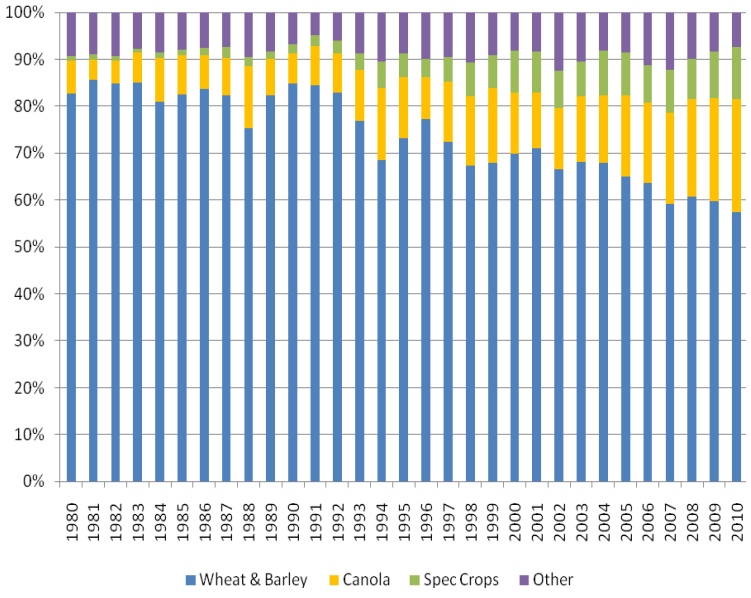
Changing Production Patterns

This section of the report will look at the past 30 years and highlight the broad trends that have occurred in the production, processing, consumption and export of grains, oilseeds and special crops. It is not intended to provide an exhaustive examination of the factors involved, but to provide the reader with an overall understanding of the key events and the market, regulatory, legislative and operational conditions that shaped the GHTS throughout this period.

Western Canada Production

Production patterns for grains, oilseeds and special crops in western Canada have changed dramatically over the past thirty years. In the early 1980's Canadian Wheat Board (CWB) grains accounted for as much as 90% of the volume produced. But by 2010, that proportion had fallen to less than 60%.[21] At the same time, canola production increased from approximately 5% of the total to almost 24%. Special crop production has gone from barely registering to over 10% of the volume produced.[22] Although year-to-year fluctuation is experienced as a result of weather, (drought, etc.), the trend over this period is clear. Producers have been looking to diversify their income streams with a greater variety of cash crops.

Figure 4: Western Canada Production – Commodity Grouping



Many factors have influenced the shift in production patterns, including both domestic and international events. The economic hardship and ultimate disintegration of the Former Soviet Union (FSU) led to the loss of a major wheat

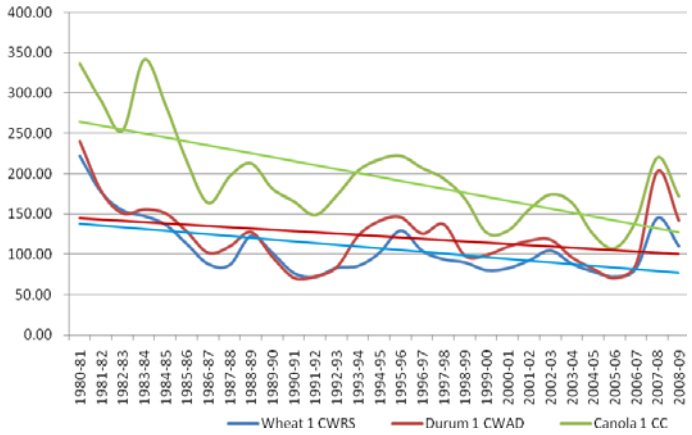
[21] CWB grains include wheat, barley, and oats until 1989. The marketing of oats was removed from the authority of the CWB as of 1 August 1989.

[22] Special crop data includes: dry peas, lentils, mustard seed, canary seed, chickpeas, dry beans, sunflower seed, buckwheat and fababeans.

customer in the early part of this timeframe. Of late, increasing production and the emergence of FSU countries as strong competitors for some of Canada's export markets has had a significant impact. The increasing recognition of canola oil as a healthy dietary choice and the development of a bio-diesel industry (especially in Europe and the United States) have contributed to a massive increase in canola demand and production. Growth of the ethanol industry and the huge increases for corn acreage has had a significant impact on feed markets as DDGS has displaced traditional feed grains in many markets.

Domestic policy changes, such as the move towards a more commercial, compensatory freight structure for moving grains has also influenced production decisions. The increase in freight rates has influenced crops differently depending on the relative value of the crops. For lower value crops, such as feed grains, a higher proportion of their price goes to transportation than do high-value crops. As such, producers have shifted to higher value crops for export and have tended to market lower value crops into domestic markets.

Figure 5: Price for Wheat, Durum and Canola ($ per tonne)



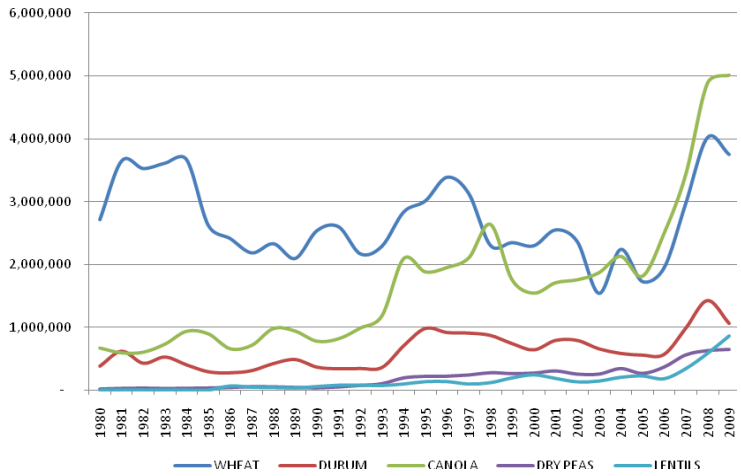
The price farmers that receive for their grain is a major driver of their annual production decisions. For most commodities produced in western Canada, the price is largely determined in the international marketplace. Figure 5 shows the changing price for wheat, durum and canola in real dollars over this timeframe and accentuates the challenges faced by producers. The associated trend lines illustrate the decline for all three commodities. The sharpest decline is seen for canola, although the price at the beginning of the period was nearly 50% higher than for the other commodities.

As producers switched t acreage from wheat to canola over this period, a decline in canola prices occurred. A likely consequence of this increase in supply had the effect of moderating the fall in wheat prices. Of these three commodities, durum has experienced the smallest price decline in real dollars. Variability is significant for all commodities, with the largest price spikes being experienced in the run-up during the 2007-08 crop year. The pattern of variability among these three commodities is very similar, even though they differ by degree. This suggests that commodity prices trend as a group, responding to the same global supply and demand factors.

Comparative Values of Commodities

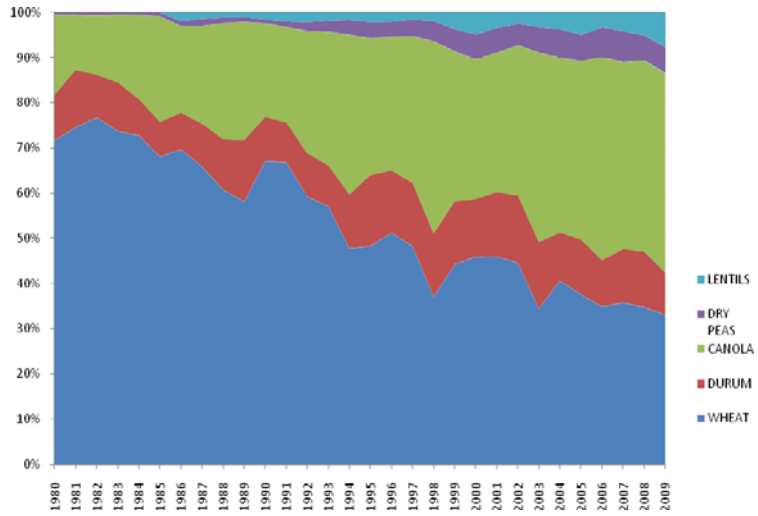
Changing production patterns in western Canada has resulted in significant shifts in the sources of income for farmers over the past three decades. The cash receipts for various commodities are shown in real dollars in Figure 6. While non-durum wheat has provided the greatest source of income from crops for most of this period, the past few years have seen canola overtake it in absolute value to producers. Notwithstanding year-to-year fluctuations, durum sales value from farms has remained relatively constant. While the price run-up during 2007 and 2008 impacts the results in the most recent years, it does not obscure the trend.[23] Although at a much lower dollar value, the most dramatic increases in returns to farmers have been seen in their sales of special crops such as dry peas and lentils.

Figure 6: Western Canada Farm Cash Receipts (thousands of dollars)



The change in value to western producers is apparent when the percentage change in real dollars is examined. Although the five commodities examined here, do not account for 100% of farm cash receipts, they provide a clear picture of the trend. Of these five commodities, (in 1980) wheat accounted for more than 70% of farm cash receipts and 90% of the volume. By 2008, the proportion had slipped to less than 40% of the value and 65% of the volume. In the same time period, canola has increased from less than 20% to over 40% of the value of these commodities. Durum has increased its share of farm cash receipts from approximately 9% to 12% of the relative value. Dry peas and lentils have seen the most dramatic increase, growing from a negligible amount to over 5% and 7% respectively in this timeframe. Producers over this period

Figure 7: Western Canada Farm Cash Receipts (Index: 1980 = 100)



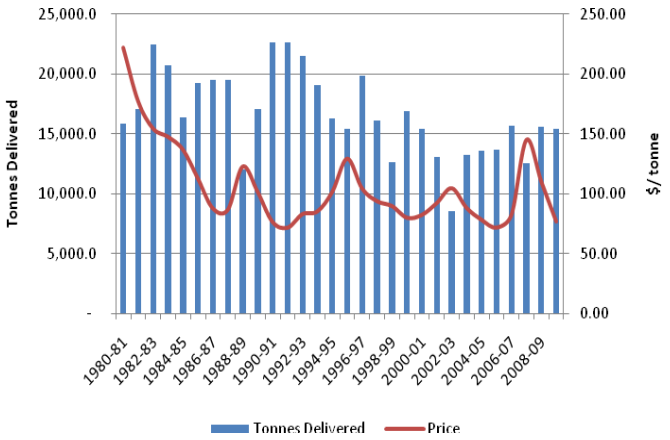
[23] The 2008 data is the most recent farm cash receipts data available. Prices have been falling since reaching a peak in 2008.

have been shifting away from traditional cereal crops to higher value oilseeds and specialty crops as these markets have grown.

Deliveries into the Network

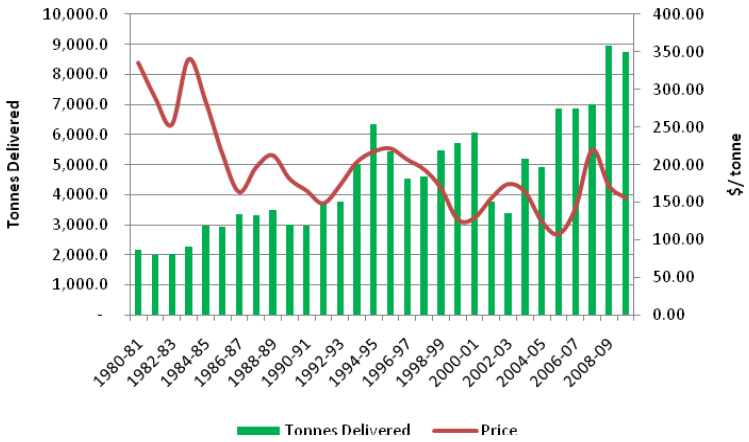
The pattern seen in deliveries to the licensed elevator network over this period is similar to that seen with production. Wheat has experienced relative declining deliveries over time as prices fluctuate and the pricing advantage shifts to other crops (Figure 8). Spikes in price accompany periods of low deliveries. These in turn are followed by a rebound in deliveries and correspondingly lower prices. Short-term cycles such as this are seen throughout the period. The inter-year real price corresponds with the downward trend in wheat production and deliveries. This observation should not be confused with the fact that pricing signals are a major tool used by grain companies to attract grains into their elevator systems. Grain companies will narrow or widen the *basis* (difference between the cash value and nearby futures month value) in order to send a signal aimed at either encouraging or discouraging farmer deliveries.

Figure 8: Wheat Deliveries and Price ('000 tonnes, $ per tonne)



Canola exhibits a somewhat different pattern. Although the real price has been falling throughout this period, production and deliveries to the licensed elevator system have been increasing. As can be seen in Figure 9, canola deliveries have surged over the past three decades. Price has fluctuated throughout this period and as was the case with wheat, spikes are sometimes associated with lower deliveries and supply.

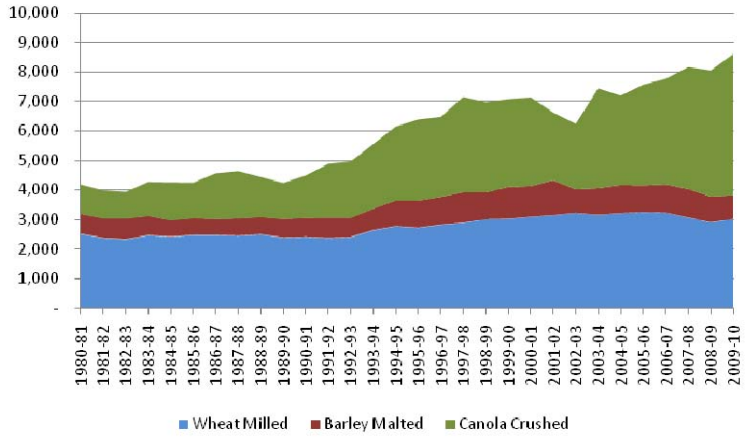
Figure 9: Canola Deliveries and Price ('000 tonnes, $ per tonne)



Changes in the Livestock and Processing Industries

Both wheat processing for flour production and barley malt production in Canada have seen modest increases since 1980. Wheat processing has increased from approximately 2.5 million tonnes per year to something over 3.0 million tonnes, while the quantity of barley malted has grown from about 700,000 tonnes to approximately 900,000 tonnes per year.[24] The most dramatic change has been seen in domestic canola crushing, which has increased fourfold over the past three decades, from 1.0 million tonnes to over 4.0 million tonnes per year.

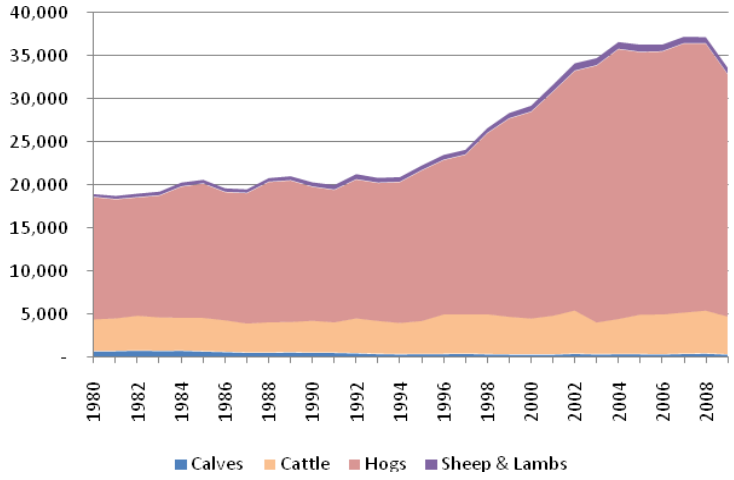
Figure 10: Domestic Processing – 1980 – 2009 ('000 tonnes)



The level of processing for both wheat and barley is fairly consistent until about the 1993-94 crop year, when the modest increases mentioned above are observed. Canola crushing had seen a modest increase up to this point and a much more dramatic increase from the mid-90s onward. One of the objectives of moving to an environment where farmers paid the full cost of transporting their grain to export position, which began August 1st 1995, was to encourage further processing of these commodities here in Canada. This data lends support to that argument, although increasing domestic demand due to population growth and the awareness of the health benefits of substituting canola oil for less healthy products cannot be ignored.

Consistent with the theory that paying higher freight rates for export grain shipments would inspire domestic processing, was the expectation that domestic feed and livestock production would benefit as well. Data for production in a time series from 1980 to the present is available for the country as a whole. Although, it obscures the specific impact in western Canada, it does illustrate the trend. For cattle production a modest increase was experienced from the mid-

Figure 11: Livestock Production in Canada – 1980 – 2009 (thousands of head)



[24] Rahr Malting constructed a new malt house at Alix, Alberta in 1993.

90s onward. This pattern is repeated for sheep and lambs. What is abundantly clear is that there has been a dramatic increase in hog numbers from the mid-1990s onward. Production jumped from approximately 15 million head to over 30 million head per year. This production increase was accomplished by a significant expansion in the number and size of hog farms, as well as the investment in infrastructure (such as the Maple Leaf Consumer Foods hog processing plant built in Brandon, Manitoba).[25]

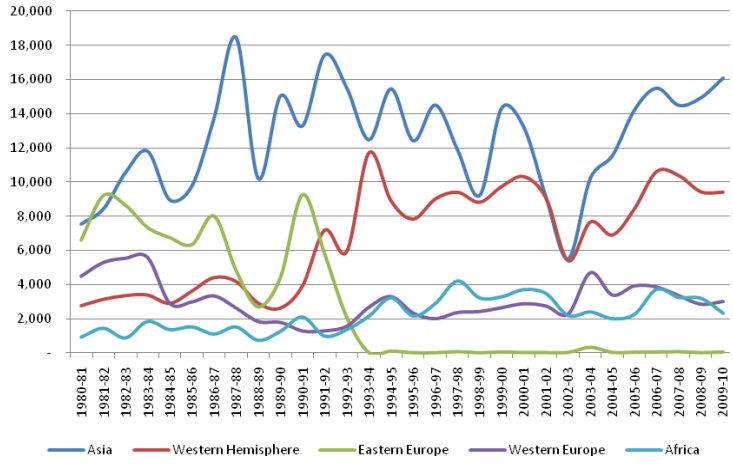
The cattle sector has not had a smooth ride to greater production and prosperity throughout this period. In May 2003, Canada's first case of Bovine Spongiform Encephalopathy (BSE) was identified in a cow from Alberta. Thus began a long saga of export restriction on Canadian cattle and cattle products that continues to linger. Depressed prices and a decrease in cattle exports accompanied these restrictions. The industry is still encumbered by related complications such as finding an economically viable solution to the disposal of "specified risk material" from slaughtered cattle.[26] The recent introduction of Country of Origin Labeling (COOL) by the United States has further depressed demand for Canadian cattle.

The hog industry has also faced significant hurdles in recent years. Despite the spectacular growth throughout the 1990s and early part of the current decade, the industry is now encountering a major setback. With two thirds of Canadian hog production destined for the export market, the strengthening Canadian dollar, and higher cost for feed, has reversed the economics of this once profitable industry. Adding to this in 2009 was the introduction of COOL by the United States and the onset of the H1N1 Flu (unfortunately known as Swine Flu). The resulting decrease in demand has left the hog industry currently undergoing a significant transition with an uncertain outcome.

Changing Export Patterns

While overall export volumes for western Canadian grains have not changed dramatically, despite year-to-year fluctuations, individual commodities have experienced both significant changes in absolute quantity and in major market destinations. When comparing exports by destination region, Asia can consistently be seen to be the largest purchaser of western Canadian grain, oilseeds and special crops. While Eastern Europe was the second most important market in

Figure 12: Exports from Western Canada – All Commodities (thousands of tonnes)



[25] The choice of location of Maple Leaf's plant was announced late in 1997 and the facility began processing hogs in August 1999.

[26] BSE is known to be concentrated in certain parts of infected animals. These tissues are referred to as specified risk material and are removed from all slaughtered animals destined for human consumption.

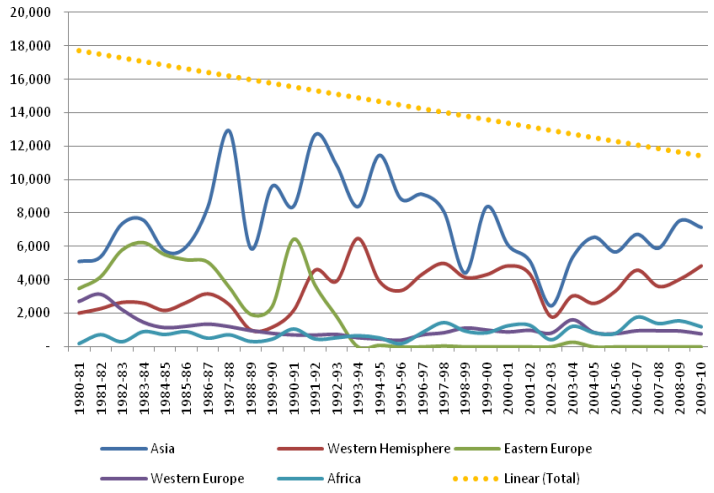
the 1980s, by the early 1990s its purchases were in decline, and have been insignificant since the 1993-94 crop year. Countries in the Western Hemisphere have been purchasing greater volumes of western Canadian production and form the second most important customer group. While exports to Western Europe have declined, those to Africa are on the rise, albeit at a lower overall rate, compared to other regions. What is also apparent is the significant year-to-year fluctuation in the level of exports to any given region. This can be caused by many factors, such as drought and reduced production here in Canada (as was the case in 1988 and 2002). Alternatively, the importing region may experience its own cycles with imports depending on domestic factors such as supply – greater in dry, low domestic production years, and lower in years of plentiful local production.

Wheat exports, being the largest by volume, follow a similar pattern to that of the aggregate exports. In comparison to the late 1980s and early 1990s, Asian purchases, which are dominated by China, have fallen to more modest levels in recent years. Much of this change is tied to China having embarked on a campaign to boost wheat production and self-sufficiency in the mid-1990s.

The FSU countries, which dominate those in the Eastern Europe region, were consistent customers of the Canadian Wheat Board in the 1980s, often entering into multi-year sales contracts that would specify minimum levels of purchase.[27] The collapse of the Soviet Union and the economic hardship that ensued essentially eliminated this group of nations from the Canadian marketplace.

Figure 13 illustrates the declining volume of wheat in the overall exports from western Canada. Producers' evolving seeding choices and the retreating or loss of large buyers such as the FSU and China, have undermined its dominance.

Figure 13: Wheat Exports from Western Canada (thousands of tonnes)



Barley exports have also declined over the past three decades. Although barley production has remained relatively constant, expanding livestock production resulted in a greater portion being consumed domestically and a lower volume being made available for export.

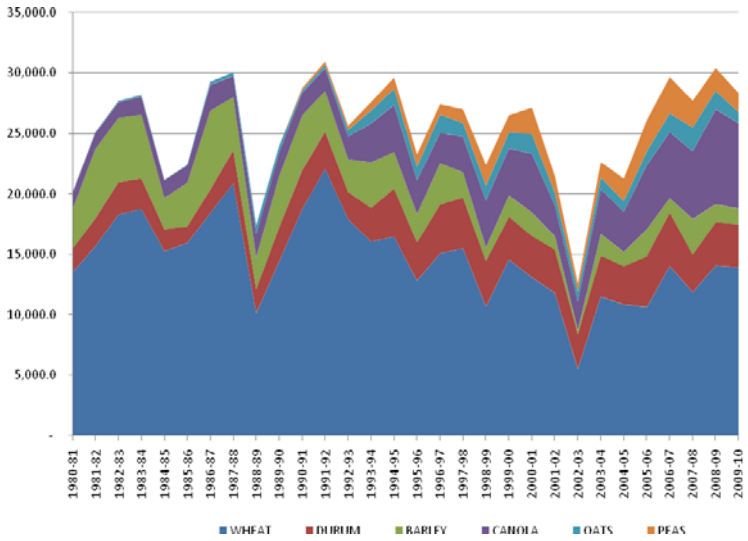
Canola exports have grown in tandem with increased production over the past 30 years. Japan has been a consistent export customer throughout this period. European demand and purchases were curtailed in 1997 due to restrictions on imports of products with unapproved genetically modified traits. Fortunately, other countries such as Mexico, and more recently China, have stepped into the

[27] Other than one agreement with China early in the current decade, multi-year sales have not been a factor for the CWB since the mid 1980s.

void.[28] As mentioned earlier, the increasing desire to substitute canola oil to achieve healthy diets and the growth of the bio-fuel industry have stimulated production and export markets.

Durum exports have also made advances throughout this period. The major export markets are Mediterranean countries and the United States. Millers and processors in these regions seek the high-quality, consistent product that can be purchased from Canada. The relatively small size of the global durum market, along with its concentrated demand, heightens the variability for both price and volume of exports. Changes in the local supply-demand balance due to domestic production swings in major markets, results in considerable variability for Canadian exports.

Figure 14: Export from Western Canada (thousands of tonnes)



The United States is the primary export market for Canadian oats. The reduction in US domestic oat production, as land has been diverted to corn and soybeans, has resulted in a supply deficit. US oats production has been on a steady decline throughout this period, from 459 million bushels in 1980 to 93 million bushels in 2009.[29] Canadian production and exports have filled this gap, meeting the demands which are largely for high-quality race horse feed.

Data on exports of dry peas is only available from 1990 onward. Producers' desire to diversify their income streams, has led to a significant increase in production of special crops in western Canada. The bulk of this production is exported. Peas, the largest component of the special crops commodities, have experienced a major, sustained escalation in importance to western farmers. Along with increases in incomes and the standard of living in developing countries, most notably on the Indian sub-continent, has come a demand for more and better food. Whether it is for green peas used for animal feed, or yellow peas for human consumption, the suitable soils and climate in western Canada have provided the ability to meet the demand.

[28] On 15 November 2009, China placed restrictions on imports of canola due to the presence of "blackleg", a soil bourn pathogen present in Canadian canola. Although some canola is still being exported to China, at this point, it is unclear as to how long and far-reaching these restrictions ultimately may be.

[29] Source: USDA, World Agricultural Outlook Board.

5. Impacts on the GHTS Infrastructure

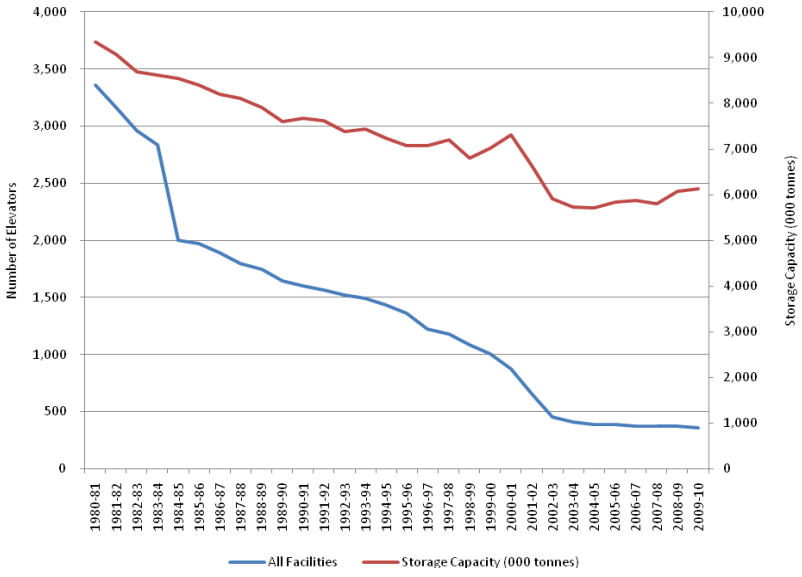
A distinction of the Canadian grain logistics chain that is often pointed to is the extended length of haul to export position as compared to our global competitors. While Western Canadian grain travels between 900 and 1,200 miles to export position, other countries, such as Australia, Brazil or any of the European countries enjoy a much shorter haul in the range of 200 to 250 miles. This places them at a distinct advantage and places greater pressure on the Canadian system to be that much more efficient. As such, given the distances involved the rail mode provides the Canadian grain industry with the singularly most effective logistical means to compete with its global competitors.

However, in the 20 year period leading up to 1980, the system was experiencing increasing distress, as revenues from the movement of grain were insufficient to support the operating and capital costs required to run the GHTS network. The system participants, specifically the grain companies and railways, engaged in a focused and coordinated strategy to make the system more efficient. This was accomplished in several ways and is discussed below.

Changes in the Elevator Network

The GHTS of 1980 was a gathering system developed over decades linking country elevators through the road and rail networks. Driven by a desire to compete effectively for the business of the small farming operations of the time, a major objective of grain companies was to position their facilities such that it would minimize the producer's length of haul. Consequently, in 1980 there were 3,357 primary and process elevators in the Western GHTS with a total storage capacity of 9.35 million tonnes, or an average of almost 2,800 tonnes per elevator. By 2010, the number of facilities had dropped to 365 elevators, just 10% of the former amount. This was accompanied by a decrease in storage capacity to 6.06 million tonnes (see figure 15). The

Figure 15 – Primary and Process Elevators of the Western GHTS: 1980 - 2010



six times increase in average storage capacity per elevator to 16,500 tonnes in 2010 reflects the nature of the change in the elevator network and the strategy employed by the grain companies over the past 30 years that has transformed the GHTS to its existing form.

The fundamental driving factor in the consolidation of the country elevator network was the push for efficiency and reduced costs. While the question of who led who in the pursuit to improve profitability, both the railways and the grain companies have initiated strategies due to pressures from global markets to become more efficient. This has given incentive to grain companies in particular who initiated strategies of converting the conventional elevator network to the high throughput facilities that now dominate the prairies.

Figure 16 - Schematic of a conventional grain elevator

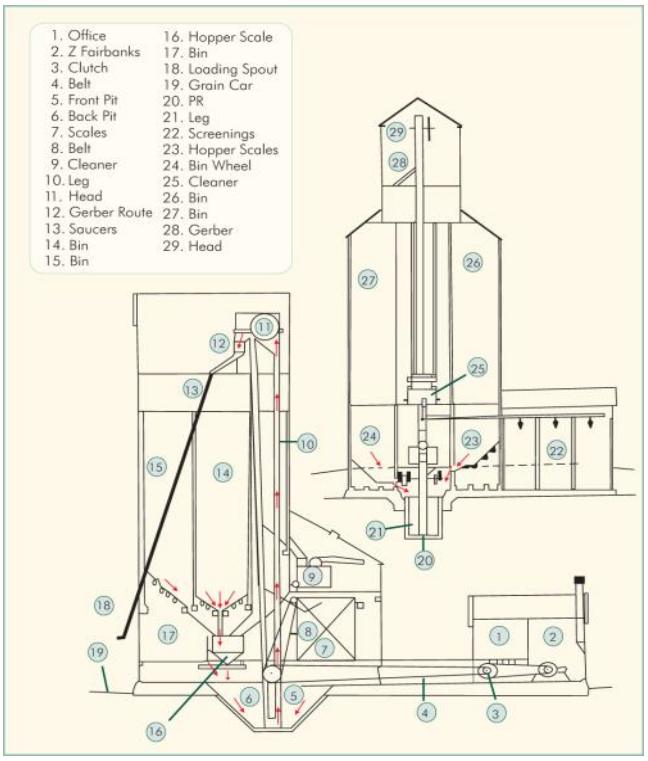


Figure 17 – A conventional wooden crib elevator facility

This was aided by the ongoing regulatory changes and an increasing move away from the cooperative/ pool approach of grain companies to a more commercial/ bottom line driven approach.

While the functional operation of elevators has not changed appreciably over the years, the volumes and storage capability has increased in pace with technology and the desire for increased efficiency. The typical design of pre 1980 elevators was the "wooden crib" elevator where grain storage was managed in 4-8 wooden bins inside the elevator. Trucks would deliver the grain by dropping the product into a pit where it would be run into the elevator and carried to the top of the structure through a series of belts and augers, called the "leg". The elevator operator would choose the bin the grain was to be sent to by turning a manifold referred to as the "head" at the top of the elevator leg and

directing the grain to the desired bin. With each bin capable of holding only 400-800 tonnes, the capability of an elevator would be limited by the number of bins and the amount of total storage. With the pressure for increased efficiency, grain companies began to increase bin sizes, then the total number of bins in a facility. Before long, the wooden crib design could no longer sustain the volumes that grain companies were looking to consolidate into single locations and a new design was sought.

Figure 18 - A high throughput elevator facility

Large concrete facilities had long been in service at port terminal locations and that design was incorporated into the new grain gathering networks. This allowed for increased total storage capacity by increasing the size of each bin – sometimes to as much as 10,000 tonnes – and the number of bins at each facility – often as many 30. Sometimes referred to as "inland terminals" these new facilities can handle 10-20 times more product in a given period, with storage capacities as high as 120,000 tonnes.

The drive for efficiency also meant changes in the activities that are undertaken within the country network. In the pre 1980 period, the country network typically undertook to gather, elevate and load the grain, leaving cleaning and drying activities to the port terminal elevators. With the diversification of markets that saw deliveries into the US and other markets, combined with a drive for efficiency, inland terminal designs have begun to incorporate the equipment and processes to take on these tasks.

Changes in the Railway Network

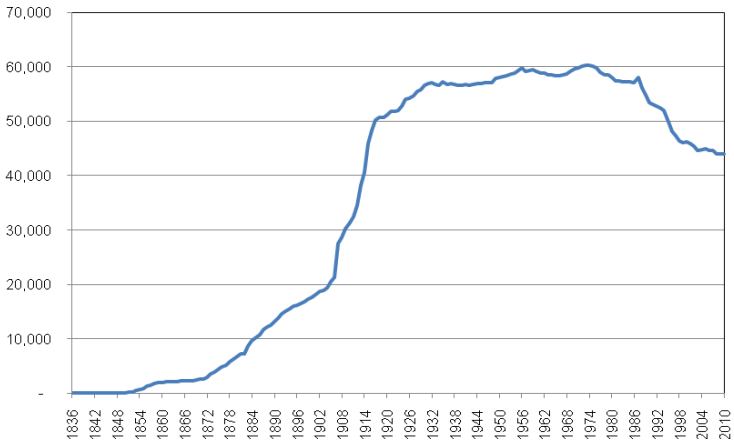
Rationalization of the Railway System

In the almost 100 years prior to 1980, the legislative environment experienced a multitude of reviews and changes. The most significant changes impacting the railway system in the time frame considered by this review saw their impetus begin with the passage of the *National Transportation Act* (NTA) in 1967. Until this juncture, any abandonment of railway infrastructure required regulatory approval. While the 1967 legislative change did not dispense with this requirement, it recognized that the railway industry needed greater latitude in adjusting its plant to fit the needs of the marketplace. The process associated with securing the regulatory approval needed to abandon unwanted track may

have remained an involved one, but it set the stage for an initial rationalization attempt. Much of this change centered on the branch line network that had developed in western Canada.

Wanting to examine the issue further, the Canadian Transportation Commission imposed an initial freeze on prairie branch line abandonments in 1973. This was followed a year later by a qualified moratorium that protected a 12,413-mile network from abandonment until 2000, and another 6,283 miles until the end of 1975. At the same time, it opened some 525 miles of track, not then in use, to possible abandonment.

Figure 19 - The Canadian Railway Network : 1836 – 2010 (Total Miles)



A commission of inquiry, headed by Emmett Hall, a retired justice of the Supreme Court of Canada, was appointed in 1975 to investigate the railway needs of grain producers, elevator operators and related businesses.[30] While the Hall Commission held hearings throughout western Canada, the CTC allowed 362 of the 525 miles of unprotected track to be abandoned. When the Commission released its report in 1977, it recommended that some 2,165 miles of grain-dependent branch lines be abandoned, in stages, over the next five years. It also affirmed the CTC's earlier decision to protect the remaining branch line network from abandonment until 2000. These recommendations were largely accepted, with the designated core network being protected by a CTC order.

Statistics Canada data from 1976 indicates that the Canadian railway system encompassed a total of 59,850 mile of operated track.[31] Almost three-quarters of this, some 43,789 miles, was classified as first main track, with the remaining 16,061 miles consisting of other main track, yard track and sidings. By 1980, Canada's railways had culled 2,116 miles from its first-main-track network. A total of 437 miles was removed through operational cutbacks in eastern Canada, primarily in Quebec and Ontario. However, the vast majority of the reduction, 1,678 miles, came from the cessation of operations in western Canada. With the exception of some 222 miles drawn from British Columbia, 1,456 miles were tied to operational reductions made on the prairies. These reductions are consistent with the abandonment recommendations put forth by the Hall Commission for that period.

[30] In light of this, the freeze on the abandonment of 6,283 miles of branch lines was extended to the end of 1976.

[31] As the name implies, operated track is distinct from non-operated track. It provides a measure of the track-miles over which a railway actually operates. It does not include the lines over which a railway may have ceased operating but still retains ownership. Nor does it include those lines which it may have also abandoned. While this is an imprecise measurement of the physical plant, changes over time do provide an indication of the amount of track that might be abandoned in the longer term.

At this juncture, some 17,672 miles – or 42.4% – of the first-main-track network was situated in the provinces of Manitoba, Saskatchewan and Alberta.

Table 2 - Canadian Railway Infrastructure (miles operated)

	1976	1980	1996	2000	2007
First Main Track					
Newfoundland and Labrador	928	943	285	283	262
Prince Edward Island	254	253	0	0	0
Nova Scotia	1,249	1,223	483	471	476
New Brunswick	1,664	1,633	634	541	718
Quebec	5,390	5,171	3,312	3,476	3,841
Ontario	9,807	9,632	7,785	7,446	7,340
Manitoba	4,596	4,078	3,484	3,245	2,918
Saskatchewan	8,450	7,763	6,474	5,618	5,394
Alberta	6,082	5,831	5,202	4,391	4,520
British Columbia	4,786	4,564	4,404	4,222	4,030
Yukon	58	58	0	0	0
Northwest Territories	129	129	75	41	75
United States	396	395	68	167	48
Subtotal	**43,789**	**41,673**	**32,206**	**29,901**	**29,622**
Other Track					
Other Main Track	2,041	2,159	2,583	2,478	2,825
Industrial, Yard and Sidings	14,020	14,180	13,299	12,486	12,494
Subtotal	16,061	16,339	15,882	14,964	15,319
Total Track	**59,850**	**58,012**	**48,088**	**44,865**	**44,941**

Source: Statistics Canada

Notwithstanding the regulatory reforms already enacted under the NTA in 1967, the rapidly changing competitive environment had prompted an even more substantive deregulation of the American railway industry in 1980. In light of the competitive advantage that had been given to their US counterparts, Canadian carriers soon began to call for the granting of more regulatory freedom at home. In response, the federal government proposed sweeping changes to its transportation policy, overhauling the *National Transportation Act* in 1987. Under its provisions, the railway industry was given a large measure of the commercial freedoms it had championed.

Once again the industry's focus centered on unburdening itself of money-losing operations. In the aftermath of the Act's passage, railway operations in Newfoundland and Prince Edward Island were shut down altogether, and both CN and CP moved quickly to scale back uneconomic branch line operations in all parts of the country. As a result of the newly simplified abandonment process, the amount of track operated by the railways began to decline more substantially. By 1990, the railway network in Canada had shed another 6,406 miles, falling to 53,444 miles in total.

The abandonment process was simplified even further following passage of the *Canada Transportation Act* in 1996. Moreover, the protection order that had served to shield the prairie branch line network from abandonment efforts was also rescinded. By the close of that year, Canadian railways had ceased operating over 9,924 miles of the network it had operated in 1980. This constituted a reduction of 17.1% in 16 years, even so the railway network has continued to contract. At the close of 2007, the last year for which detailed publicly-available information can be obtained, the overall system stood at 44,941 miles of operated track. These statistics speak to the broader shifts that occurred, but not to the changes that arose in specific regions of the country.

Owing to inconsistencies in the Statistics Canada data, a complete picture of the evolution that has taken place over the past 30 years is not possible. However, an examination of the broader geographic changes is still feasible. This shows that the most significant reductions in infrastructure occurred in Atlantic Canada, where, in addition to the cessation of operations in Newfoundland and Prince Edward Island, about 60% of the track formerly in service in New Brunswick and Nova Scotia has now been culled. In comparison, the reductions in Quebec and Ontario proved much less dramatic, falling by a factor of one quarter in the same period.

Figure 20 – Rail lines of the Western GHTS - 1980

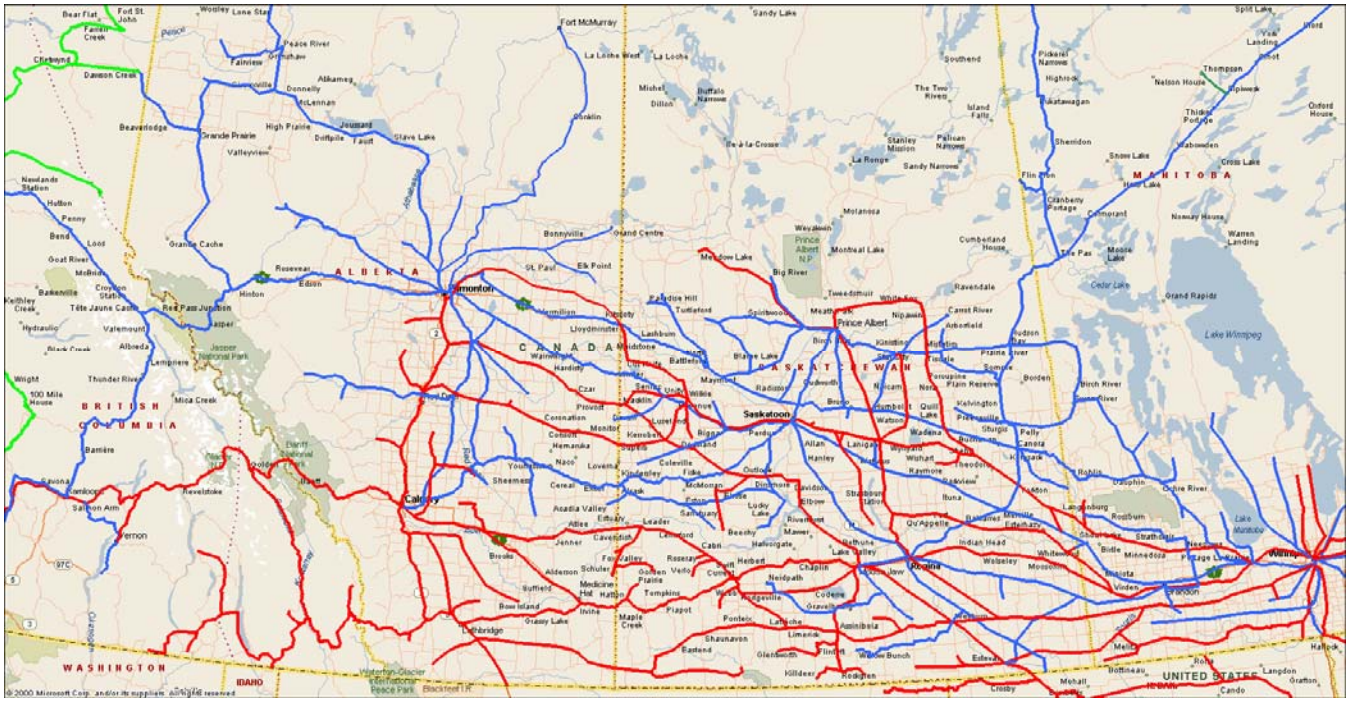
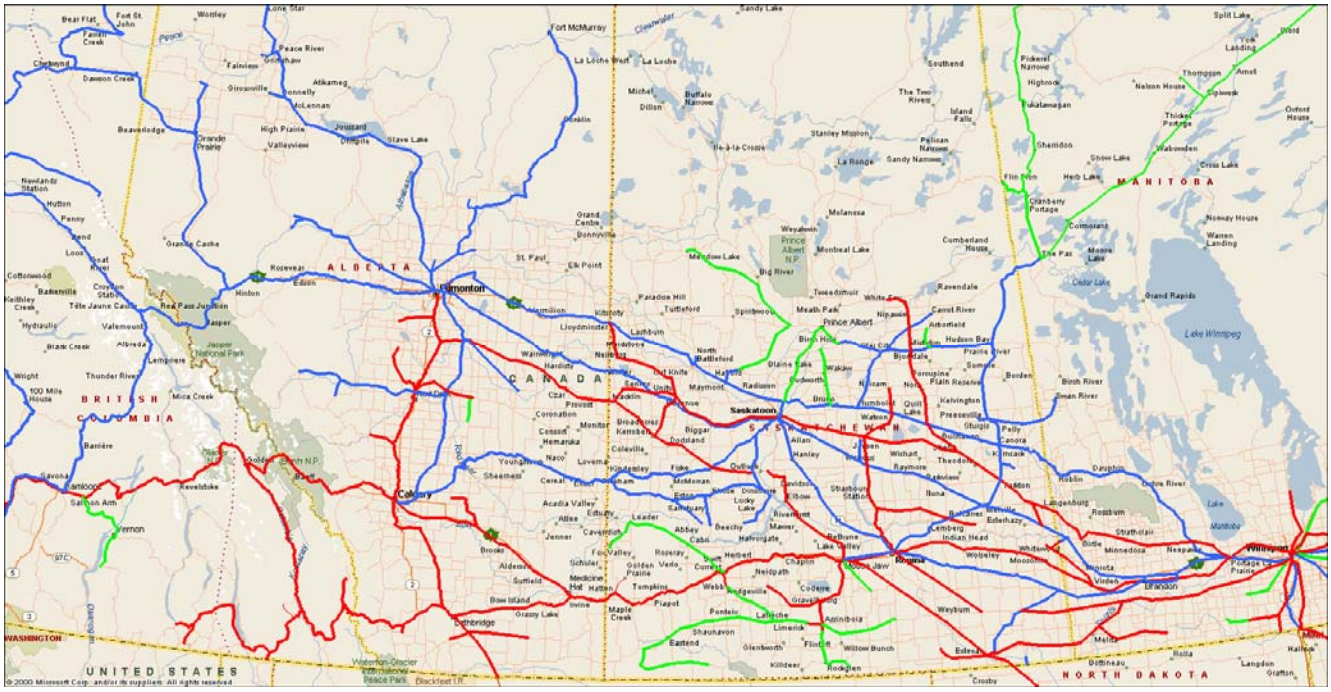


Figure 21 – The rail lines of the Western GHTS - 2010



The overall reduction posted by the western provinces was consistent with that of central Canada, declining by 5,374 miles, or 24.2%, to 16,862 miles of first-main-track. The smallest provincial decline in this region was posted by British Columbia, which saw 534 miles removed from service largely as a result of the closure of CP's line through the southern interior of that province. Reductions to the prairie network proved to be more substantive, accounting for 90% of the total miles deducted from the system.

Saskatchewan posted the largest comparative reduction, losing 2,369 miles, or 30.5%, of the 7,763 miles of first-main-track operated within its borders in 1980. This was followed by Alberta, which saw operations over 1,311 miles of its 5,831-mile network suspended during this same period. Although the 1,160-mile reduction posted by Manitoba ranked third in comparison to that of Saskatchewan and Alberta, it lost 28.5% of its 1980 network.

The largest reduction in operated track on the prairies came before 1996, when 2,512 miles were closed. Although this was entirely consistent with the recommendations put forward by the Hall Commission in 1977, reductions made through to the end of 2007 fell somewhat short of this mark, amounting to another 2,328 miles in total. Here too, the bulk of the reduction came in the years immediately following the lifting of the prohibition order on branch line abandonment in 1996, with operations over a total of 1,906 miles having been suspended by 2000. This proved to be four-and-a-half times greater than the 422 miles removed from service in the next seven years.

Logistics from Farm Gate to Country Elevator

The logistics of movements from the farm to the country elevator have changed partly through the producers drive for improved productivity but also as a reaction to the changes in other supply chain partner's infrastructure and operational approaches. The impact of the consolidation of the country elevator and branch line network on the distance between producers and the elevator locations they deliver to is indisputably significant. Producers have responded in a number of ways the two most predominant being to increase the amount of on-farm storage required and the other to increase the size of truck hauling grain off the farm.

Length of Haul

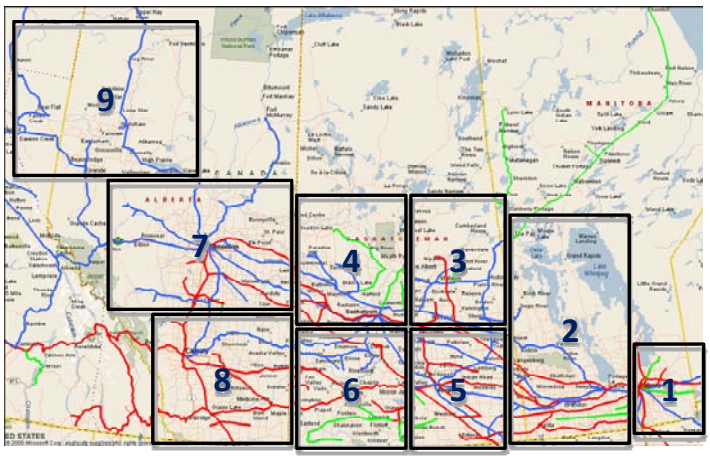
The producer's average length of haul over the period has increased. While it is difficult to assess exactly how much the length of haul has actually increased, it is possible for the GMP to estimate the change in distance from the farm to the closest elevator using data available through the GMP's Producer Netback Calculator (PNC)[32].

Table 3 - Comparison of distance to Elevator by Province (Miles)

	1999	2010	Variance
Alberta	28.07	35.13	25%
Manitoba	17.92	23.55	31%
Saskatchewan	22.46	29.79	33%
Western Canada Weighted Avg.	22.57	29.63	31%

The PNC is a web based tool developed through the GMP and offered to producers for the calculation and recording of CWB grain delivery options from farm to elevator. It allows the producer to determine the most cost effective delivery option based on the GMP's export basis methodology[33]. In order for a producer to use the PNC they must provide an origin "home quarter" where the grain being delivered is to originate from. The analysis that has been undertaken references the PNC tables for all the origins of movements that have been used. Based on those origins, and the inventory of elevators that were in existence in 1999, calculations are made to determine what the distance to the nearest elevator was from each of the origins that have been collected within the PNC database. The same calculations were made against the

Figure 22 – Grain Monitoring Program's nine measurement districts



[32] The Netback Calculator can be found at www.netback.ca. The website contains full instructions on its use and utility.

[33] The GMP export basis methodology take into account the trucking costs to the elevator, rail freight costs, costs associated with elevation and storage and is offset by the trucking premiums paid. It is intended to reflect the cash ticket that is issued upon actual delivery of grain to the terminal. Also factored into the calculation can be the blending premium offered by the elevator, which is reflects by an increase in the price.

elevator network that exists today. The comparison of these distances forms the basis of this analysis.

As shown in Table 3 above, the analysis provides an estimate of the average distance from the farm gate to the nearest elevator by province and the total for all of Western Canada. The results indicate that the average distance between the farm gate and the closest country elevator has increased some 31% between 1999 and 2010 – from 22.6 to 29.6 miles.

To view these changes at a greater level of disaggregation, the geographic segregation offered by the GMP's producer netback districts was used.

Table 4 – Comparison of distance to nearest elevator by GMP delivery district

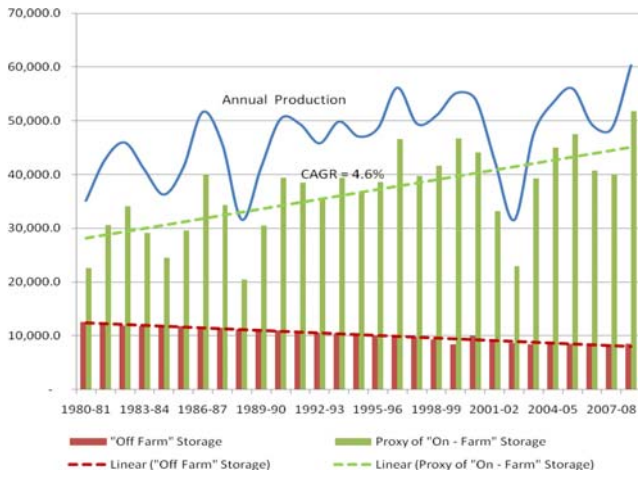
District	1999	2010	Variance
1	18.91	23.63	25%
2	17.08	23.48	38%
3	19.95	25.03	25%
4	24.09	31.35	30%
5	19.41	26.42	36%
6	26.27	37.66	43%
7	24.34	33.39	37%
8	26.96	32.85	22%
9	43.58	50.82	17%

Table 4 below delineates by district (with the boundaries of the districts shown on the adjacent map) the average distance and percentage variance. There is much consistency seen throughout most of the districts, with the exception of the Southwestern Saskatchewan area (district 6) where a noticeable amount of branch line has been abandoned and elevators closed over the past 11 years.

It is important to reiterate that this analysis portrays the distance to the nearest elevator rather than the average of the distance that grain is actually delivered. The producer decision on where to deliver grain is influenced by many different commercial factors, ranging from the blending and trucking premiums a particular elevator is offering, to the back haul opportunities that may be available. Many grain companies are now offering to arrange all aspects of the movement of grain from the farm gate, including the coordination, hiring and payment of commercial truckers. It is also important to note that other, socially related and preferences of a personal nature play into a producer choice of delivery location, such as the relationship they have built with the elevator's management or other personal or familial obligations that may coincide with a grain delivery to a specific area.

The actual behavior and actions related to the decision of where to deliver grain is such that to determine a statistically valid estimate of the actual behavior of producer deliveries would require far greater diligence in the gathering of required data than has been provided for in this report.

Figure 23 - Estimate of Change in On-Farm Storage in Western Canada



On Farm Storage

The Canadian GHTS is structured such that the majority of grain is stored on the farm. While production has grown from 40 to 60 million tonnes annually on average, the permanent off farm storage infrastructure within the GHTS (comprised of the primary country and terminal elevator networks) has fallen from 12.5 to 8.5 million tonnes. This

reduction is due in large part to the consolidation and rationalization of the industry. It is a common understanding in the grain industry that the reduction in storage combined with the growth in production has resulted in a greater demand for "on-farm storage". There are no statistics kept that reflect the actual amount of on farm storage that exists on Canadian farms, nor the rate at which producers have had to invest in it over the past 28 years. It is admittedly not an empirical approach but in the absence of actual data it is possible to provide a proxy for the rate at which the demand for on farm storage is increasing by calculating the difference between production and available off farm storage.

In Figure 8 above, the estimate of off farm storage versus estimated on farm requirements is portrayed. This analysis estimates that the demand for on farm storage has increased at approximately 4.6% annually, while production has increased at a rate slightly less than 2% annually. Producers assume the cost for that investment.

While there is a distinct capital cost associated with the construction of incremental "on farm" storage, there are other associated benefits and risks. Incremental storage provides the ability for producers to better time delivery of grain into the system when price and opportunity is best suited for the producer – they have a better opportunity to optimize their own price. Conversely it shifts the capital responsibility to the producer from the grain company, who also benefit from an enhanced "just in time" delivery system from an enhanced producer storage base.

Changes in Truck Operations

Figure 24 - Typical 5 tonne dual axle truck (C. 1983)

The approach taken by the industry in the delivery of grain from the farm to the country elevator network has seen significant change over the past 28 years. In 1980, the typical mode of movement was by producer owned truck. These were typically 5-7 tonne capacity dual axle trucks. A typical country elevator was designed with this type of vehicle in mind at the interior unloading area would just accommodate this size of vehicle.

The consolidation of the network, the move to high throughput elevators and the advent of longer trains would see a change in perspective of both grain companies and producers towards the delivery of grain. These changes and the consequent increase in distance to elevators drove the need for greater operational efficiencies in the way grain was trucked to the elevator. The shift in truck size from 5 tonne to the use of tri axle and long combination vehicle configuration (super B) has meant significant

efficiencies for the system. The increase in payload for each move has gone from 5- 7 tonnes in the early 1980's to 35 – 43 tonnes today.

The ownership and operation of the truck movement has also seen a shift in recent years. Previously the purview of the producer alone, the industry has seen the entry of contractors and mainstream trucking companies into the grain hauling market. Grain companies have also taken a greater interest in the delivery activity and the forward securing of grain from producers in order to meet the railways requirements to receive a multi car block incentive, as well as the manner in which they provide trucking incentives to the producer. Grain companies will often include trucking from the farm gate as part of the transaction to secure grain from specific producers.

Figure 25 - A Super B tractor trailer grain hauler

6. Operational and Logistics Approaches

Changes in the car allocation process

Prior to 1979, the Canadian Wheat Board was responsible for the apportioning and distribution of the fleets of boxcars and covered hoppers used by the railways to haul grain to both domestic and export markets. The CWB held marketing responsibility for the vast majority of commodities produced on the Canadian prairies at that time. The growing volume of non-CWB product, primarily canola being marketed by grain companies, led the federal government to vest the overall car allocation duty with an independent third party, the Grain Transportation Authority (GTA) in 1979.[34]

The GTA was responsible for assessing the overall demand for the various competing commodities as well as the overall supply of railcars for shipping those products. On a weekly basis, a division of the car supply would be made between the CWB and the non-Board shippers based on demand. The vast majority of the cars were supplied to the CWB, which then divided the cars among its agents (grain companies) for the shipment of Board grains. The non-Board shippers received an allocation directly from the GTA, based on their relative sales positions. The railways retained a small portion of the car fleet to meet the demand of non-administered products (special crops, etc.).

A number of factors were involved in determining the weekly CWB allocation. The process was based on the Bracken Formula, which calculated a rolling average for farmer deliveries (receipts) of grain to country elevators. This formula was modified from time to time by industry agreement. The CWB met periodically with the grain companies (agents) to review and revise its Industry Rail Car Allocation Policy. Overall car allocation authority was vested with the Grain Transportation Agency following passage of the WGTA. This system of distribution remained largely unchanged until the WGTA was repealed in 1995.

In 1996, with industry agreement, the federal government established the Car Allocation Policy Group (CAPG) to replace the GTA allocation authority. CAPG had representation from railways, grain companies, the CWB and farmers. It was responsible for assessing the total anticipated demand for shipping in a crop year and determining a percentage that would be used to divide the fleet between the CWB and non-Board shippers. On a week-to-week basis, the percentage would fluctuate due to operational considerations, but the overall target would be used as a guide. An independent non-Board allocation office was established to allocate cars for the shipment of canola among the competing grain companies.

[34] The Grain Transportation Authority was a precursor to the Grain Transportation Agency, which would be established with the passage of the WGTA in 1983.

CAPG was eliminated at the time amendments were made to the Canadian Transportation Act in 2000. The responsibility for car allocation moved entirely to the railways. Since that time, the railways have used a variety of methods to apportion cars to grain shippers – historical percentages, terminal authorizations, advance products (some involving monetary bids), order books, etc. The car allocation processes used by the railways during periods of rationing have been of a more dynamic nature than was the case under the previous administered system. Changes have been more frequent and at times confusing to the shippers, being introduced with little or no prior consultation. On more than one occasion the advance products have inspired shippers to pursue Level of Service complaints with the Canadian Transportation Agency.

Shifting focus of railway operations

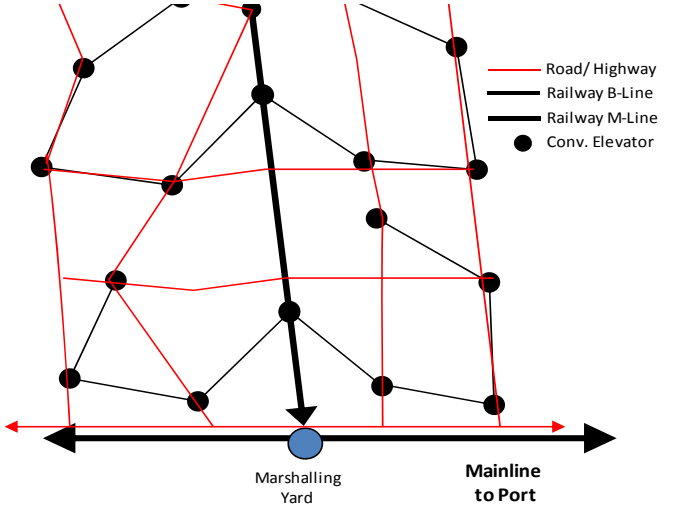
The heart of the GHTS is the branch line rail network serving the country elevator network on the western prairies. In 1980, the network served over 3,000 elevators delivering to the four western ports, eastern Canada as well in to the US and Mexican markets. [35]

While the destinations for the railways have not changed drastically, the collection process has. The shift in focus of rail operations stems from the need and desire of the primary network stakeholders to increase their efficiency in light of increased global competition.

The Changing network landscape

To serve the railway network of the time, the Western Canadian network had grown to become a comprehensive branch line network. Elevators were positioned every 15-20 miles at locations where they intersected with roads and rail lines. (see diagram in figure 26) To serve these elevators, railways, in conjunction with the Canadian Wheat Board and grain companies, would create weekly "grain run" plans on a line by line basis.

Figure 26 – Typical 1980's GHTS network model



[35] The number of elevators in Canada peaked in the 1930's at over 5,700. The number initially fell slowly – to 5,280 in the 1962-63 crop year before falling again to 3,357 in the 1980-81 crop year.

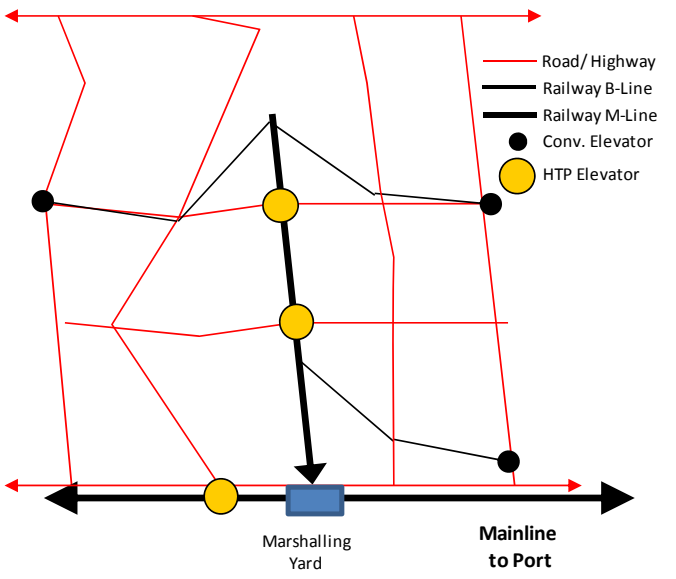
A grain run assigned to a specific branch line started at a satellite marshalling yard with 30-60 cars and would service each branch line elevator with empties, delivering between 3 and 10 cars to each elevator. The train would return a few days later to lift the loaded cars before returning to the marshalling yard. The marshalling yard would switch and marshal trains or train blocks for further movement to export locations and domestic markets.

Railways soon realized that in order to improve their own efficiency, they would need to consolidate operations to reduce the number of stops being made and the numbers of trains being run while handling the same and greater volumes.

Larger car blocks

The objective for railways in the redesign of the GHTS network was to reduce the number of stops a train makes through an increase in the number of cars loaded at one time at each elevator. The instrument used to motivate shippers to this behavior was the multi-car block incentive rate (MCB incentives). The MCB incentive that was initially provided to companies was for movements loaded and lifted in blocks of 18 cars. Railways and grain companies worked together to see elevator facilities in key strategic locations modified to accommodate this loading practice. This would usually involve the extension of the rail siding at the elevator to accommodate the larger car blocks. The initial experiments with MCB incentives proved to be successful and before long, car block sizes were increasing to 25 and 50 cars.

Figure 27 – Typical current GHTS network model



As a result, elevator efficiency was also increased as greater throughput was realized by concentrating movements in fewer and fewer elevators. With the advent of high throughput facilities, it was not long before 100 car trainloads were possible, and their use soon became common within the industry. High throughput elevators were positioned in locations that allowed for consolidation of elevation activities, usually at junctions of highways (see figure 27). By 2010, the numbers of elevators has fallen to almost one tenth of the number that existed in 1980.

Longer trains

The typical grain run model that saw 50-60 car trains servicing branch lines was predicated by the time and workload associated to a specific run. A run serving 5-10 elevators on a line would have a requirement to move no more than that many cars. With the introduction of MCB incentives and the consolidation of the network, grain run requirements have

increased to meet the volume demands of the network. With the average block size now in excess of 75 cars, the typical grain run will service only 1 – 2 elevators at a time. This is significant in that the railways have been able to reduce the numbers of trains they must operate, yielding savings in crew and other asset related operating and capital costs.

Other Railway Efficiencies

Railways have made strides in other areas that yield efficiencies for the GHTS.

The railways continued focus on asset utilization has been the driving force behind such initiatives as multiple car blocks and longer trains. They have also moved to reduce crew costs over this period with the removal of cabooses; investment in safety technology such as hot box detectors and other in-track sensor devices; and the focus on heavier more efficient locomotives. The most beneficial initiative for efficiency is likely the move to heavier weights on rail which allowed for the move to 263,000 lb loading. Already underway in the early 1980s this has since seen another increase to 286,000 lb loading. Effectively this has moved the average car load from under 75 tonnes in the 1970s to in excess of 90 tonnes today. These actions collectively allow the railcar fleet to carry almost 50% more using the same number of railcars.

The realization that working together and sharing certain portions of their infrastructure would provide benefits in the form of increased capacity has led Canada's two Class 1 railways to initiate co-production programs in several regions across the country. For the grain industry this has been most prevalent in the Vancouver and Thunder Bay corridors.

In the Thunder Bay terminal, both railways have agreed to share infrastructure and coordinate operations such that the movement and delivery of grain to the port elevators has been streamlined. As a result, all terminal elevators are serviced daily. The terminals benefit in that they are better able to plan their operations. Railways achieve shorter dwell times on cars, therefore improved car cycles.

CN and CP implemented an initiative that sees joint usage of track through the Fraser Canyon accessing the Vancouver terminal. As part of this initiative they have split the service to Vancouver's north and south shores, with CN providing the service to the north shore and CP the south. Railcars are blocked prior to arrival in Vancouver and the serving railroad taking the train or car block from a point outside of the rail terminal (Kamloops or Boston Bar) directly to the terminal elevator. This process provides the same benefits as seen in the Thunder Bay situation. The 1980's GHTS operation saw the spotting of individual cars at elevators, returning days later to lift those cars. This model required that cars be dropped at marshalling yards, switched and blocked for outbound trains that would ultimately work their way to the port destination. Larger cars blocks, ideally full train load movements, allow for a full cycle movement where locomotives and railcars move as singular unit. Locomotives will arrive at a country elevator in a move coordinated with the grain company and spot 100 or more cars. The elevator will be prepared to load the train in less than 24 hours (often less than 12 hours) and the train will immediately depart the country elevator for the port terminal – negating the requirement for further marshalling or switching enroute. The benefit of this operation accrues to both parties – the

grain companies see improved and consistent service and the railways experience improved utilization of assets (locomotive and railcar).

Railways have also begun a program of fleet renewal, acquiring larger volume cars that are shorter in length. These cars allow the same length of train to move more cars and greater volumes.

Car Pooling for greater efficiency

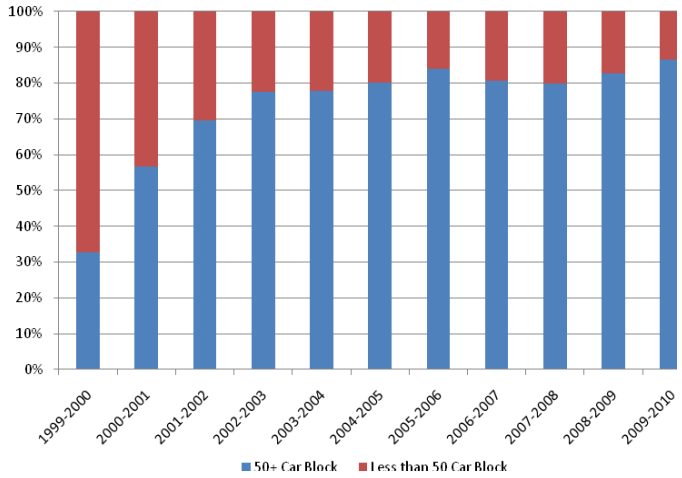
In the early 1980s, efforts were underway to improve the efficiency of operations at the ports of Vancouver and Thunder Bay. At that time, a system of "car pooling" was introduced. The overarching principle was that "a car is a car" and it was not necessary for an individual shipper's car to be directed to its designated terminal for unloading. As long as an equivalent volume of grain was credited to the shipper, cars could be unloaded at whichever terminal was the most convenient for delivery. This system allowed the railways to avoid excessive switching of cars into specific terminal elevators at ports.

The Grain Transportation Agency's port office received all records of unloads and maintained position statements of the relative balance between the terminals. Periodically, instructions were issued to direct cars to particular terminals to avoid large imbalances.

Although the system came under criticism from time to time, it continued to function until the mid-1990s. By this time, the transition to larger elevator facilities in the county, larger car spots, and shipment in larger car blocks was underway. Shippers increasingly wanted to receive the specific blocks of cars that they had shipped from their county facilities at their port terminals.

Car pooling was eliminated at the end of the 1995-96 crop year. Following that, the grain companies' efforts at rebuilding the country elevator network accelerated. By the 1999-2000 crop year, 27 % of cars were moving in blocks of 25 cars or more. By 2009-10, that had increased to nearly 87 %. The car pooling system provided efficiencies during a period of transition for the industry. By the mid-1990s, it was eclipsed by the evolution to high-throughput country facilities and multi-car block shipments.

Figure 28: Distribution of Incentive Movement



Although cars are no longer pooled at port position, terminal efficiency is enhanced by a

degree of terminal specialization, particularly at Vancouver. To facilitate such specialization, shippers assemble both CWB[36] and non-Board grains destined for the same terminal in the same train at the country elevator.

Changing Modal Patterns

While Canada's export trade in grain was predisposed to bulk movement in 1980, an increasing amount of today's trade sees demand for smaller lot sizes and greater segregation. A production shift to pulses and increased value added products have altered the logistical demands of export buyers over the last 10 years in particular. For Canadian crops, the use of international containers has increased from 5% of total overseas exports in 2000 to 14% in 2009. (see Figure 29) This fell to 12% in 2010 which is indicative of the influence bulk rates have on modal choices being made.

Another driver of modal change is the increasing practice of arbitrage between freight modes. Specifically as bulk ocean rates rose during the period between 2003 and 2007 (see Figure 30), the price of container freight remained steady or dropped[37]. As bulk rates increased[38], shippers saw opportunities to shift to containers as the price was equal or in some cases lower than bulk.

While the price of freight will continue to impact decisions made by exporters on the mode they use, the preference of many buyers for the smaller lot size and

Figure 29 - Canadian Export Grain in Containers - 2000-2010

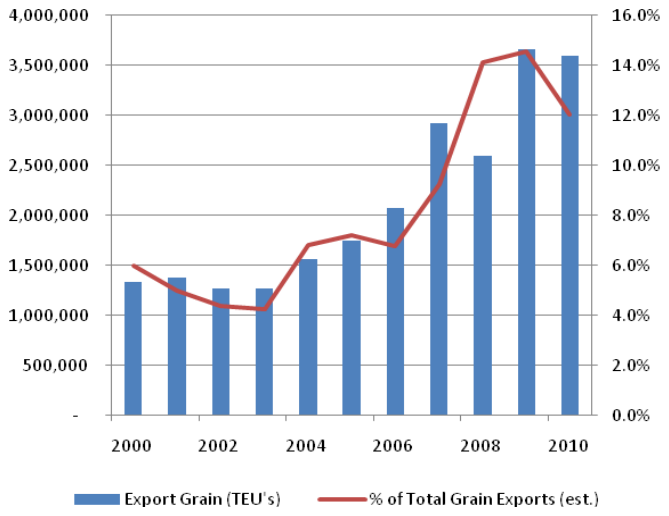
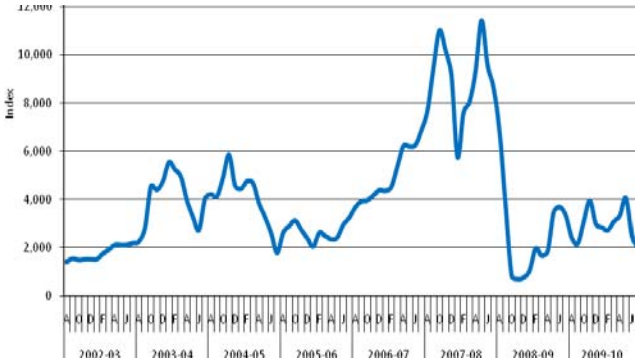


Figure 30 - Baltic Dry Index (end of month)



[36] CWB grains include wheat, durum and barley

[37] 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 cargos, route rates, as well as a market for the trading of freight futures. The Baltic Dry Index is a price index of ocean freight rates based on a composite of daily rate quotes for 24 shipping routes. The information presented in the accompanying chart is drawn from publicly available secondary sources.

[38] The price movement seen with the Baltic Dry Index reflected the prevailing, and perceived future, demand for vessels to service China's growing trade in raw materials and finished goods. The economic collapse in the fall of 2008 led the correction in ocean freight.

utility of container movement will also influence the logistics decisions associated with grain.

Integrated Planning Processes

As the regulatory environment has evolved beginning with the passage of the WGTA in 1983, the operational practices of the Western Canadian GHTS have experienced significant change. The Grain Transportation Agency (GTA) initially took the role as industry facilitator and coordinated much of the planning activities. Starting with the coordination of a monthly industry forecast that was based on firm and projected sales programs as indicated by the CWB and grain companies, the GTA coordinated the allocation of cars between CWB and non Board grains. The CWB would manage the distribution of the Board grain cars in order to meet its sales programs while addressing congestion issues in the country elevator network. Grain companies were allocated cars for non-Board movements based on their nearby sales positions. Additionally, the GTA coordinated the distribution of cars at the port terminals and facilitated the gathering and exchange of operational statistics and information shared amongst the stakeholders (grain companies, the CWB and the railways). While it was a "sales based" process, the logistics model of the time could best be described as a "demand push", as the large country elevator network worked to collect grain and in turn push it out to the ports as quickly and effectively as possible.

The elimination of the GTA in the mid 1990's combined with the elimination of the pooling of grain at port terminals led the industry to look for new and revised processes for planning, coordinating and executing the operation. In the period immediately following the closing of the GTA, an industry based committee took on the responsibility for car allocation policy, an activity that was eventually assumed solely by the railways.

Railways soon moved to planning car allocation based on a process commonly referred to as "pipeline management", a move that was intended to shift the focus from the country origin to the destination at the port terminals. The underlying principals of this initiative were to maintain a balanced flow of cars into and out of the ports and therefore ensure a more predictable operation – ostensibly for both the railways and the grain companies.

Over the years that followed planning moved from a centralized activity to one that was coordinated between each grain company, the CWB and the railways. It is also important to recognize that changes in market demands and opportunities over the past 10 years have led to greater distinction between varieties and grades of grain, wheat in particular. This in turn has driven the necessity for more segregated lots within elevators both in the country and at port. Combined, these factors have necessitated the need for system participants to plan the logistics of movement relative to specific sales. Consequently, the approach taken by the majority of stakeholders is now best described as a "pull system" as movements are planned to an actual sale and the loading of specific ocean vessels, as opposed to a "push system" where stocks are moved to position in anticipation of the sale.

The past five years has seen even greater focus by both railways on a coordinating role in the planning and management of port focused operational plans for the movement of grain. CN has continued to focus on the pipeline management

approach with a strong systems based car management and booking system – referred to as an "open order book" approach. While initially met with some consternation by the industry and having experienced a challenging implementation, most stakeholders have come to find value in the approach.

CP has worked with the CWB and several of the grain companies on a "lean supply chain" approach, which focuses on a joint planning and forecasting methodology. This approach goes one step further in connecting the timing of the sale, the movement to port and the planned loading of the ocean vessel at the port terminal.

The changes in the Western GHTS's infrastructure landscape, market and regulatory environment have been significant, but the attendant changes in the operational approaches and processes are equally as significant and have likely been the driver of significant efficiencies and benefits gained by both grain companies and the railways.

7. Observations

Current Efficiency and Performance

The supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. The measure viewed as most descriptive of the performance of the system is the length of time grain takes to move through the GHTS – from the time grain is delivered into the country elevator system to the time it is loaded to an ocean vessel at port.

Comprised of three component measures (average days stored in country, and terminal elevators and the average railway loaded transit time), the total time in the system provides a good indicator of both the performance and fluidity of the GHTS. As can be seen in Figure 31, the trend over the last ten years shows a steady reduction of the time grain spends in the system. Climbing to a peak of almost 78 days in the 2002-03 crop year, it has fallen to as low as 50 days in the 2008-09 crop year.

Improvements can be noted in the time wheat and other crops have been stored in the country elevator system, despite market demands that require greater product and grade segregations. Canola has realized modest improvements over this time frame,

Figure 31 – Total time grain spends in the GHTS: 1999 - 2010

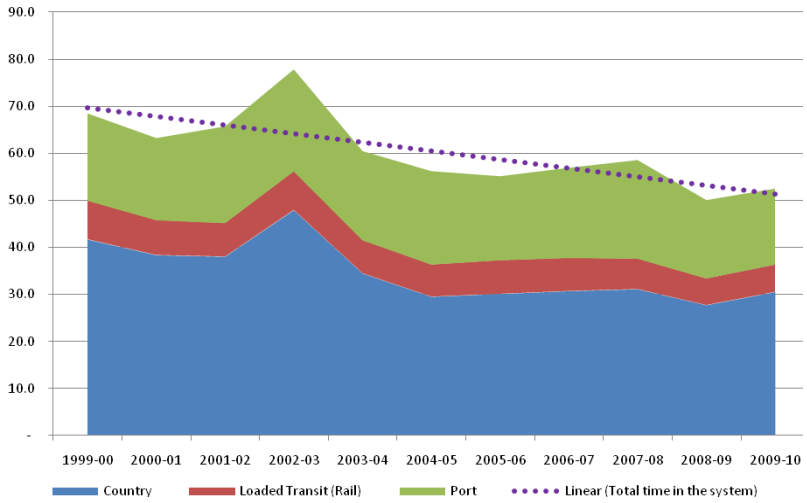
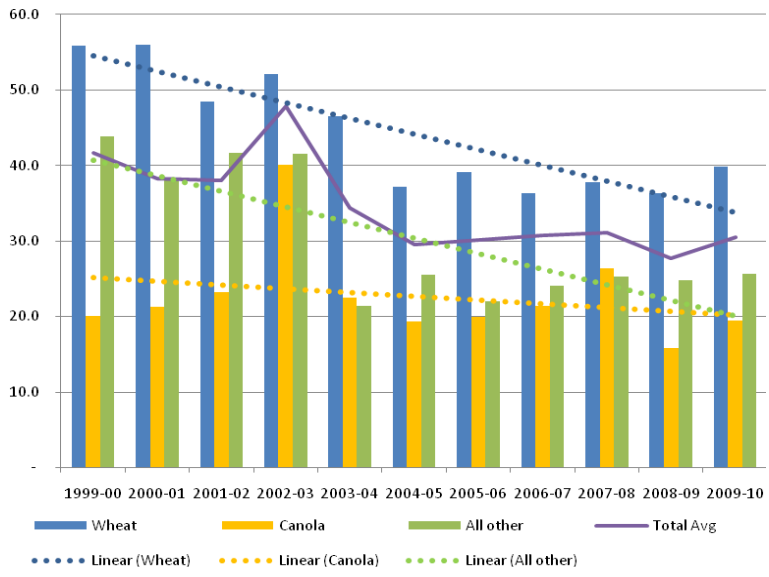
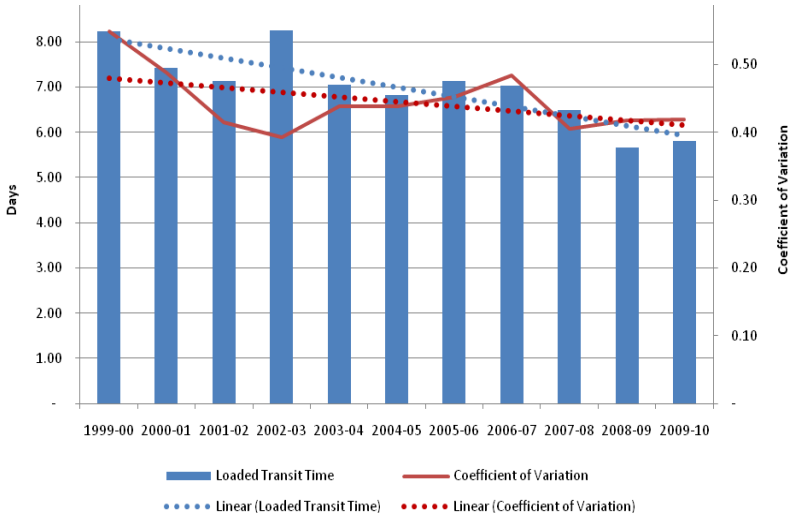


Figure 32 - Total time grain is stored in the country (by major grain and total avg.): 1999 - 2010



as a product with few demands for increased segregation and steadily increasing volumes. The rationalization of the country elevator system played a part in encouraging grain companies to develop processes that allowed them to manage elevator space more judiciously and efficiently.

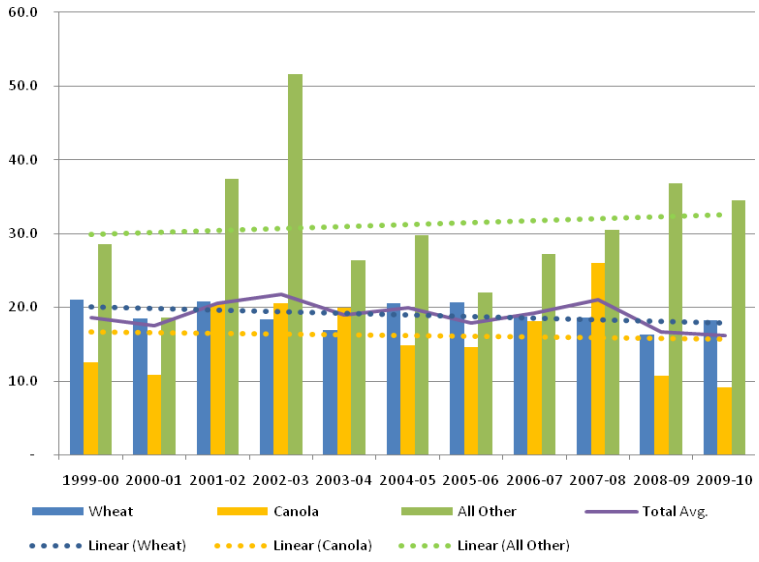
Figure 33 - Total loaded transit time (rail): 1999-2010



Improvement has also been seen in the time grain spends in rail service, falling from over 8 days ten years ago to less than 6 days in the 2009-10 crop year. In the early 1980's total average car cycle times were in the range of 21-24 days, with the loaded portion equaling half. The trend over the past 10 years indicates continued reductions in the average transit to port.

That said, while the proportion of time grain spends on rail (loaded transit) is much lower than the other two components, it is the integral bridge between the country and port and therefore the reliability of the service provided by the railways is integral to the planning capability of the supply chain. The GMP has adopted the measure of coefficient of variation (CV) as the indicator of reliability. As can be seen in Figure 33, some modest improvement can be noted over the past ten years as the CV (indicator of reliability) dropped from .55 to .42, however this degree of variability in service remains high, and poses a significant challenge for those looking to develop ongoing operational plans, particularly at port terminals.

Figure 34 - Total time grain spends in store at port (by major grain and total avg.) 1999-2010



The time grain spends at port has seen smaller reductions, largely because the stability of the infrastructure base has seen

little change over the last 30 years. Data for the last 10 years indicate that while the overall trend is decreasing and the lines for both wheat and canola remain relatively steady[39], other crops such as barley and special crops are increasing.

Other measures that provide insight into improvement in system efficiency include higher annual turnover ratios in the county network (4.8 in 1999-2000 to 6.2 in 2009-10) and the reduction in overall railway car cycles (19.9 days in 1999-2000 to 13.2 days in 2009-10).

There are some areas where system efficiency has remained constant or deteriorated such as the amount of time vessels spend in port and the numbers of multiple berths. These measures impact the overall efficiency of large ports. This is especially important at the Port of Vancouver, Canada's largest and busiest port. The average vessel time in port there has increased from 4.3 days in 1999-2000 to 6.2 in 2009-10 and the average number of berths per vessel (Port of Vancouver) remained steady ranging from a high of 2.1 in 2000-01 to 1.6 2003-04.

While efficiencies have been realized through the many changes in the system, there is a continued need to seek improvement for the benefit of the entire supply chain. This paper has discussed issues faced by the GHTS over the period from 1980 to the end of the 2009-10 crop year, with particular focus on the last 10 years. Over this timeframe there have been numerous challenges faced and solutions found resulting in a more efficient and productive than system than ever before. However, there are several challenges the industry continues to contend with:

- Continuing consolidation of the rail and country elevator networks – As the industry continues to consolidate and search for avenues that will allow opportunities for increased efficiencies, the network will shrink and adjust. Producers and marketers will face continued pressures to adapt to these changes and the stakeholder community as a whole will be challenged to avoid or minimize the potential for sub-optimizing impacts on the system;
- Challenges with gaining access consistently reliable transportation service – Whether it be rail, truck or container capacity, reliable supply has long been a constraint facing the industry and often an impediment to stakeholders' ability to grow. There can be no doubt that this will continue to challenge the industry in the years to come;
- Changing demands of domestic and export markets – As market demands change, producers' will continually adjust. The shift seen over the last three decades from cereal grains to oilseeds and specialty crops presents a challenge to the logistical capacity of the system.

These challenges can and will be viewed as opportunities as the shift also presents the chance for the entry into potentially more lucrative markets and provide for increased yield and revenues for Canada's export grains.

[39] The 10 year average time in store at port for wheat and canola is 19 and 16 days respectively. Year to year fluctuations can be attributed to changes in market demand and quality and segregation factors.

Areas of Potential Risk and Opportunity

The world economy has experienced extraordinary growth and integration and the same can be said for the agricultural sector in general, and the grain and oilseed sectors specifically. The following discussion is designed to identify the key drivers that will potentially affect and challenge the western Canadian grain and oilseed industries, and by extension, the grain handling and transportation system (GHTS) to respond in ways that maintain markets and competitiveness.

Supply/demand Drivers

International Market Trends

The recent economic growth of the global economy has been powered by China and India. Based on current trends, both China and India will likely continue to import significant quantities of grains – particularly oilseeds and pulse crops. China alone now accounts for nearly a third of world oilseed trade, and India is the largest importer of Canadian pulses.

The Former Soviet Union (like the European Union forty years earlier) has shifted from being a major importer of grain to a major player and competitor to Canadian grain exports –particularly in the feed grain market.

Whether China, India, and other developing countries continue to experience economic growth and a policy of grain and oilseed importation is uncertain, however, it is hard to overestimate the impact of the continuation of supercharged Asian and Middle east economic growth and the evolution of the Former Soviet Union (FSU) into a major grain exporter on the mix of grains, oilseeds and pulses produced in western Canada and on the GHTS. A continuation of high value/low volume grain production and continued expansion of identity preservation to satisfy small but more lucrative specialty grains, oilseeds and pulse markets is one possible outcome that would present additional logistical challenges for the western Canadian GHTS including grain companies, marketers, and regulatory bodies.

Biofuels

Today, grain based ethanol/biodiesel production is a major user of grain and oilseeds– corn and soybeans worldwide and feed wheat and canola in western Canada.

The western Canadian grain industry has been challenged at times by instability in terms of production and price> However, the rapid worldwide growth of the ethanol and biodiesel markets, and the linking of grain and crude oil prices has significantly increased price volatility, and arguably, increased instability in the grain and oilseed sector.

Numerous questions with respect to biofuels remain, including; what are the limits to grains and oilseeds usage for biofuels, will they top out at government mandated levels, will current United States and Canadian biofuel policies continue, what are the timelines for next generation non-grain based ethanol production to supplement/displace grain based biofuel production and what impacts on price and production will reduced biofuel usage of grain have?

Domestic Livestock grain use

Canadian livestock producers are substantial feed grain users, and currently are experiencing severe challenges, including market access issues arising out of Bovine spongiform encephalopathy(BSE), Avian Influenza, and United States country of origin labeling regulations, which along with the drop in demand from a cooling world economy, collectively are resulting in absolute herd fluctuations (the Canadian cattle herd is at its lowest level in fifteen years and Canadian hog numbers are at their lowest in twelve years).

A key unknown is precisely what a restructured Canadian livestock and hog industry will look like and what impact on crop mix and absolute feed grain usage it will have.

Grain quality/grain safety Drivers

Kernel Visual Distinguishability

Beginning with the 2008 crop year, Kernel Visual Distinguishability (KVD) was removed as a registration criterion for western Canadian wheat classes. This government decision to remove a visual restriction on plant breeders was designed to speed up the development of new wheat varieties with enhanced disease resistance, higher yields, tailored to feed and industrial (biofuel) uses. So far no significant issues have arisen with respect to co-mingling of non-quality wheat with bread quality wheat; however, the removal of KVD will require additional sampling, monitoring, testing, and process verification in order to maintain quality requirements in bread wheat markets. As new higher yielding general purpose varieties come on stream, opportunities for new markets will increase, however so will the risk to the bulk handling system of high quality wheat to the (un)intentional admixtures of lower quality types of wheat. So too will the costs associated with sampling, monitoring, testing, and process verification. Liability issues remain and may escalate. All are significant issues for members of the western Canadian GHTS.

Identity Preservation/ Grain segregation trends

The western Canadian GHTS from farm to international customer has evolved into a high-throughput bulk handling system designed to move large quantities of bulk grain rapidly. Simply put, in the past fewer segregations means faster handling, lower costs and increased competitiveness in global markets.

At the same time as the system has moved to high-throughput, it has also increased the amount of grain handled as Identity Preserved (IP). IP grain has increased costs associated with it, from farm through the handling system. IP grain is usually handled in smaller lots, with more segregations, which in turn increases costs throughout the entire supply chain. The western Canadian GHTS has continued to handle more IP grain; however, decisions to move IP grain are only undertaken if the added premium to do so is larger than the additional costs incurred.

Grain Safety /Quality Issues

The relatively gradual, managed, economic decisions made by Canadian marketing firms with respect to IP grain have been overshadowed by an increased focus on grain quality/safety related issues from importing countries and customers. Unlike IP decisions, the western Canadian GHTS now does not have a choice (other than not participating in the market), as to whether to comply with the demands/requirements of importing countries with respect to grain quality/safety related issues. Each new issue[40] has resulted in disrupted market access for western Canadian grain. Each new crises has also resulted in additional sampling, testing, and monitoring of grain at primary elevator and terminal elevators as well as on railcars, and has resulted in new handling procedures and protocols implemented on farm and throughout the handling system. It has involved producers, grain handlers, the CWB and CGC. It has added to overall system costs, and has increased risk to all participants, as compliance is sample and test based.

The impact of new requirements by importing countries in terms of additional grain segregations, sampling, testing and monitoring costs on overall system efficiency and competitiveness of the Western Canadian GHTS will be significant and challenging to implement.

Traceability/Verification

The escalating number of food safety failures and the diverse commodities affected [41] has caused food safety concerns in consumers and governments to spike. Increased consumer and government concerns with respect to grain quality and grain safety is creating momentum for requiring some type of a traceability/verification system in the western Canadian GHTS. The ability to follow the movement of a food through specified stage(s) of production, processing and distribution and the subsequent implementation of a traceability/verification system would be an undertaking that would be significant and costly to western Canadian GHTS participants.

Traceability systems can provide a competitive advantage in accessing/maintaining markets to those exporters that implement them, and also have the intended consequence of minimizing liability issues by assisting in identifying the location of the problem and assigning responsibility for it. However, implementing traceability/verification systems in a bulk grain handling system would be a significant challenge. Co-mingling and blending of lots of grain at primary and terminal elevators is a consequence of a bulk handling system and is part of good business practice of primary and terminal elevators.

Additional sampling, monitoring, testing of grain as it moves through the GHTS and additional segregations and therefore additional cost, would be required in order to satisfy even the most basic traceability/verification system requirements.

[40] Some of the more prevalent issues include: ochratoxin A(OTA) in wheat and durum(EU and Japan), Fusarium toxins in wheat(EU), pesticide residues(Japan), Blackleg in canola(China), Salmonella in canola meal(United States), and most recently and although not a grain safety concern, detection of a non-approved variety of flax in Canadian flax shipment to the EU.

[41] Salmonella, E. coli, aflatoxin in grain, BSE in cattle, Avian Influenza in birds'

Consumers are becoming increasingly sophisticated in their views about the quality and safety of the foods they consume. Consumers care about specific food quality attributes and about overall food safety. Governments care about food (grain) safety from the perspective of public policy and as mechanisms to regulate imports of foodstuffs. For example, the United States Bioterrorism Act requires records and information for food traceability purposes to be maintained by companies in the food supply chain.

The establishment of a comprehensive traceability system in the western Canadian GHTS faces significant hurdles with respect to non-homogeneous requirements by crop, capacity variation of producers as well as handling system participants, and practical grain handling transportation system infrastructure limitations.

A critical consideration is whether the bulk handling component of the western Canadian GHTS can implement a comprehensive traceability system that is capable of dealing with technical advances in detection levels approaching 0.01%. It is uncertain that tolerance levels of 0.01% could be met even in a closed loop IP system. Getting agreement and implementing a traceability system in a bulk grain handling system will challenge the entire GHTS supply chain to come to grips with, and answer the fundamental questions of whether the system can continue to be voluntary, and how the costs of implementing any new system are to be shared by system participants.

Key Drivers and Impacts

International grain quality/grain safety issues have become perhaps the key driver from the perspective of market access for Canadian exports, whether they are beef, pork, or grain. The number and incidence of market disrupting meat and grain quality/safety issues has increased dramatically in recent years. Issues typically start with one country expressing concern, however, it is usually followed by a bandwagon effect that exacerbates the dimension of the problem when for example in flax, the initial concern of one market participant (EU), rapidly is adopted by others (Japan and Brazil). There are currently three different protocols for Canadian flax destined for the EU, Brazil, and Japan.

In the short run, we will likely continue to see more and more incidents related to grain quality/grain safety. Grain safety and grain quality are not interchangeable terms, however, they are in this case lumped together because the net effect on the GHTS is the same-more segregations, sampling, testing, and process verification-and more cost for the GHTS to absorb.

Zero tolerance in an environment that has the technical capability to assay and detect shipment purity to 0.01% (or one seed in 10,000) has quite likely eclipsed the capacity of a bulk handling system to produce, store, and transport grain and oilseeds to international customers. In order to access/maintain markets, Canadian grain and oilseed producers, and the western Canadian grain handling and transportation system will institute additional measures for selected commodities in response to new protocols required by some importing countries.

The impacts of a continued and escalating focus on grain quality will likely have significant and long term impacts on how the GHTS is able to operate. In summary:

Issue	Description	Impact
Bio fuels	The demand for bio-fuels will place higher demand for feed quality grains and push prices higher	Will increase the cost of livestock feed and draw product from the human consumption markets.
KVD	Will increase the need for vigilance and will add to the required monitoring processes at country elevators	Increase in operational management required; increased process management
Identity Preservation Grain Safety/ Quality	Will increase the demand for number of bins required; reduce the capacity of the existing network where high volume bin storage is in place	Will stress the capacity and reduce the overall capacity of the network; will bring an increased need for capital investment
Traceability	Will require extensive tracking processes to be implemented and the establishment of ISO/ HACCP types of certification processes broadly through the network	Increase in operational management required; increased process management

8. Conclusion

This study has outlined the changes in the GHTS over the last 30 years relative to grain production, grain consumption, infrastructure, regulation and the government role in the GHTS and how grain is transported. It has also addressed some of the potential future issues that the GHTS will face and while it touches on some of the issues known today, it is not definitive nor can it be.

The changes in the Western Canadian Grain Handling and Transportation over the last 30 years have been significant. Country operations are almost unrecognizable in physical appearance as the wooden elevator system of 1980 has evolved to a modern concrete and steel network. And while the storage capacity of the country system has declined, the operational philosophy behind the management of the system has evolved to one that focuses on capacity and throughput. A system such as today's system naturally carries less expense but provides far less flexibility. Specifically the current system is suited to moving large, bulk quantities to market while still being effective in the handling of smaller lot shipments.

The approach to movement of grain from the farm to the country elevator system has changed considerably today from that seen in 1980. In 2010 there are larger bins and the practices of "on farm" aeration and drying capacity have become prevalent as producers look for ways to add greater value to the product they deliver. More farms have moved to larger capacity tractor trailer combinations in the movement of grain from farm to elevator allowing for greater efficiency by hauling larger volumes of grain, a longer distance, faster.

Grain production patterns have changed since 1980. Wheat no longer has the prevalence it once had and now faces competition on the world stage from other suppliers. Canola is a now a major crop on the prairies, enjoying considerably higher prices and rates of return for the producer. Various special crops are significant players today.

The changes to railway infrastructure since 1980 are significant. What was once a formidable branchline network comprised of thousands of miles of track accessing almost every corner of the three Prairie Provinces has been pared. Since 1980, over 5,400 miles of track has been removed from the four Western provinces, all of which is secondary and branch lines. Concurrent with this change has been the change in operational management philosophy the railways have adopted. The practice of 30 years ago saw shorter trains stopping at over 3,000 origins while today railways move from less than 350 origins with unit trains over 112 cars. All aspects of rail operations have been scrutinized and remain under examination with the intent of improving asset utilization and reducing cost.

A major challenge facing the Western Canadian GHTS is to identify and implement the most appropriate measures that can address the entire farm to customer supply chain; truck to primary elevator, terminal and transfer elevators, railcar, the Lake Fleet, and containers - and do so in ways that optimize their total integration.

9. Appendices

Appendix A: The Evolution of markets and marketing of Canadian grain

This annex provides a detailed examination of the Canadian grain industry, including the various marketing approaches that have developed over the past century. The annex examines how the implementation of various marketing approaches links to the grain handling and transportation system.

The evolution of the agricultural economy and thus the system of marketing and transporting Canadian agricultural production has been divided into four distinct sections: the establishment of the wheat economy, stabilizing the grain system, changing world markets, and adjustment in production and transportation. Throughout each of these periods, different combinations of factors have influenced the economic development and marketing of agriculture products.

This paper is not a chronological depiction of events; rather it is an outline of the key themes that were fundamental in forming the current grain marketing environment and its relationship to the grain handling and transportation system. Important recurring themes throughout the sections are: government interventions, evolving market structures, agronomic and technological developments and global influences.

The Establishment of the Wheat Economy

From the late 1800s to the early 1900s the Canadian government crafted policies that established the prairie wheat economy. These policies were aimed at settling the Canadian Prairies with two major goals; securing the claim on Western Canada and developing and expanding the Canadian economy. The nature of the wheat economy was the product of these settlement goals and the resulting government policies.

Key to the settlement of the prairies was the establishment of economic activity, particularly export activity that would bring money into the region. To support the Prairie economy, the development of infrastructure, including railways, was required to facilitate both export activity and the settlement of people into the region. Growing food demands from Western European countries, whose urban populations exceeded the capacity of local agricultural production, provided the required economic opportunity. The capacity for producing wheat allowed Canada to capitalize on this opportunity and develop the prairie economy.

The grassland native to the prairies was well suited to the development of both animal and grain production. However, large-scale animal production did not meet the government's settlement goals as it did not require a large population base. Whereas grain production, with its intensive labour requirements and ease of transport, was much better suited

to meet Canada's goals of population growth; as a result, grain farming was championed the dominant form of export production on the prairies.

The Canadian government was heavily involved in the development of the prairie grain economy through settlement policies (e.g. Dominion Lands Act), economic development and transportation policies (e.g. public investment in infrastructure and Crow freight rates), experimental farms and other direct investments agriculture. The government experimental farms conducted research in wheat variety development; the development of new varieties and milling technologies resulted in a product that was highly valued in world markets. Western Canada had a comparative advantage in wheat production as long as it could economically move this production to the distant markets of Central Canada, Europe and other parts of the world.

The marketing of prairie wheat involves the collection, buying, transporting and selling the wheat to overseas customers. Prairie grain growers had few marketing options and were mainly limited to dealing with local buyers as the logistical system to move grain long distances required expertise and resources beyond the farmers' means. Central Canada and Europe, particularly Britain, were the key markets for Canadian wheat. From 1880 to WWI, the marketing of prairie grain was in the hands of two types of buyers: domestic flour millers in central Canada and international grain traders, who purchased grain on the prairies and sold this grain to customers all over the world. In 1887, the Winnipeg Grain Exchange was formed and offered wheat futures which became the principal method by which prairie wheat was priced.

Wheat required a system to gather, store and move the wheat to customers. Local transportation was animal powered which limited movement to approximately five miles per day. As a result, there was a heavy reliance on the grain dealers, railways and international shipping companies to move grain to market. Development and expansion of the grain industry was tied to the development and expansion of the grain storage, handling and transportation network. Initially loading platforms were established to load grain into railcars. Loading a producer car off of a grain loading platform was a slow, laborious process, tying up a railcar for 5 to 7 days. Since railcars were in short supply railways preferred to use elevators, as an elevator could load a car in only a couple of hours.

In addition to the increasing the efficiency of the system, elevators offered storage, which was important as there was limited on farm storage available during this period. Buyers also found the elevators' storage function highly useful, as it allowed them to determine the quantity and quality of grain available; given that this type of information was difficult to get to, as communications and travel were limited in this period. Both main groups of buyers found it necessary to construct elevators on the prairies in order to gather grain. Therefore, as railway branch lines were constructed, elevator construction quickly followed. This network of grain elevators expanded rapidly to facilitate settlement and grain production. Although rapidly expanding elevator network created greater efficiency for buyers, elevators charged the farmers a fee, known as the "elevation" deduction, for using their elevators. To facilitate the growth of elevator systems,

the railways slowed construction of grain loading platforms which limited the ability of farmers to ship grain directly to customers or to port.

As the wheat industry developed, farmers expressed concern that both the railways and grain buyers, sometimes seemed to take advantage of the producers' lack of options for marketing and shipping grain. In response to these issues, numerous government interventions occurred culminating in the passing of the Canada Grain Act in 1912. The Act created the Board of Grain Commissioners (later referred to as the Canadian Grain Commission) with authority over weighing, grading and delivery of grain and it entrenched the rights of farmers to ship their own grain through producer cars. The Canada Grain Act attempted to provide farmers with a check on the market power exhibited by grain companies and railways.

The wheat economy and its accompanying settlement were well established by the beginning of World War I. In 1896 Canada produced one million tonnes of wheat but by 1913 more than six million tonnes of wheat were produced, 50% of which was exported accounting for approximately 15% of total value of exports from Canada. Prairie population grew from less than half a million in 1901 to approximately 1.5 million in 1913 and the area seeded to wheat almost tripled from 4 million acres to 11 million acres in the same period. The settlement, which had initially provided a market for the goods produced in central Canada, quickly became an important source of export income for Canada.

Stabilizing the grain system

From the beginning of World War I through to the 1930s was the peak of the wheat economy in Canada. Wheat became the largest single contributor to Canada's export economy, accounting for more than 20% of the value of all exports from Canada between 1916 and 1937 and reached almost 30% in the mid-1920s. World economic conditions, evolving marketing structures, and the environmental conditions in the 1930s, were key influences on marketing. Other influences on the marketing of wheat during this era included the continued settlement of the prairies, agronomic challenges and government intervention in the market.

World markets were volatile throughout this period causing large fluctuations in the demand and price for wheat. Europe remained the major market for Canadian wheat; however, other markets throughout the world were slowly developing. During WWI shipments of Eastern European grains to Western Europe were blocked resulting in increased demand for Canadian wheat. While post-war austerity limited the growth of this market, the demand for wheat continued to grow through the 1920s. The worldwide depression directed the economic conditions of the 1930s which resulted in lower prices for Canadian wheat. Despite these lower prices, weaker world demands, and low productivity due to drought and disease, the prairies' wheat economy continued to be a major component of Canada's economic activity.

Price fluctuations combined with the maturing of the domestic marketplace caused considerable change in marketing structures. Instability in prices, due to the futures markets being oversold resulted in suspension of futures markets.

The federal government intervened and took control over the purchase, sale and pricing of wheat for export for the 1917 and 1918 crops, through the establishment of the Board of Grain Supervisors. Following the war this was suspended briefly, however, a replacement Wheat Board was established for 1919 and 1920 crop years which used a pooled price system.

The removal of the Wheat Board in the 1921 growing season caused rapid changes in the marketing structure of the grain sector. Farmers began to develop their own central marketing structures in the form of handling cooperatives - using price pooling as had been done with the Wheat Board. The three largest of these pools were the Manitoba, Saskatchewan and Alberta Cooperative Wheat Pools. These Pools developed a central selling agency, the Canadian Co-operative Wheat Producers Ltd, to sell wheat on the Winnipeg Commodity Exchange or directly to overseas buyers. Meanwhile, private grain handling companies consolidated into a few large private companies. The resulting companies emerged as players in the local grain buying and handling system, and multinational companies emerged as dominant players in the global marketplace. By the end of the 1920s, the farmer-owned Pools handled just over 50 percent of the wheat crop from the Canadian prairies.

The emerging consolidated grain companies began to construct or purchase port terminals and eastern transfer elevators. The farmer-owned pools also built their own elevators and acquired terminal capacity in order to market wheat in a more orderly fashion throughout the year. By the 1930s an extensive system of grain elevators had developed with elevator space available to farmers, generally within a 10 mile radius of each farm, in the prairie region. Vancouver also emerged as an alternative to Port Arthur / Fort William, now Thunder Bay, as an export point. By the early 1930s the network of grain handling facilities on the prairies reached its maximum with 5746 primary elevators.

Agronomic issues had a large influence on production; new varieties of wheat were developed that were more disease resistant, matured faster, and more frost tolerant allowing production in areas further north. The area seeded to wheat increased to more than 25 million acres. Supplies of wheat from the Canadian prairies grew throughout the 1920s, as post-war settlement expanded the areas of production further north and mechanization began increasing production.

However, in the 1930s drought conditions, as well as a severe disease (rust) infection in 1937, affected wheat production throughout the prairies, and had a permanent affect on production in some areas. While eastern Saskatchewan and Manitoba retained some production, large amounts of land in southern Alberta and south western Saskatchewan were temporarily or permanently shifted out of crop production. Agronomic developments in the 1930s were largely prompted by the widespread droughts. Innovations, such as the Noble blade plough, allowed for greater conservation of soil structure during tillage, shelterbelt developments, and removal of the most sensitive lands from cultivation. These innovations had minor affects on grain production. The expanding use of tractors and trucks that had started to replace animal power in the 1920s stalled during the 1930s due to economic conditions.

While the government involvement in wheat marketing at the end of the 1920s was intended to be temporary, in 1935 the government instated a voluntary wheat board through the Canadian Wheat Board Act. This board would accept

grain offered to it, set an initial price for this grain and return any profit on the sale of this grain to the producers who delivered the grain to the board. Any losses were to be absorbed by the government. A 1935 commission assigned to study grain marketing recommended the futures market as the best approach to marketing but also recommended more government oversight of the wheat futures market.

Despite market instability, changing marketing structures, and the 1930s droughts, wheat still led the Canadian economy. As the top contributor to Canada's export earnings, the development of infrastructure to support and improve the marketing of wheat was a national priority and wheat farmers wielded significant political force. The maturation of the grain economy provided infrastructure and sense of identity for the Canadian prairies that influenced subsequent agricultural development in the region.

Changing World Markets

From 1945 to 1980 world markets for grain changed substantially, with some markets growing with increased industrialization or lower productivity, and other markets declining due to increased self-sufficiency or the establishment of barriers to trade. Marketing of wheat became more complex, as the location of the demand for wheat changed and demands for different quality characteristics emerged. However, markets grew for a number of other grains and grain products such as industrial oils. Changing markets for Canadian grain, centralized marketing structures, and changing production practices, technologies, and crops were the key influences on Canadian grain marketing during this period.

WWII led to an improved marketplace for Canadian wheat. While the markets of Western Europe, excluding Great Britain, were cut off from Canadian producers, the United States became Canada's largest customer. However, the American demand quickly declined in the post-war period. Western European, particularly British, demand for Canadian wheat returned and remained high in the immediate post-war period, but the demand changed in the 1950s and 1960s. The formation of the European Union (EU) and its Common Agricultural Policy (CAP) enabled Western Europe to meet more of their own grain needs. Subsequently, the EU emerged as a competitor in the world grain market. The United States also returned as a major grain exporter.

The development of new technology in bread-making also influenced the demand for Canadian wheat as it allowed for production with decreased volume of high quality wheat thus further softening the traditional market for high quality Canadian wheat. While traditional markets for Canadian wheat were decreasing, the 1960s brought the first substantial "new" markets for Canadian wheat: China and the Soviet Union. Chinese demands for wheat were growing and with China facing poor crops and trade embargoes, Canadian sales resulted in the development of a long-term market for Canadian wheat. Large sales were also made to the Soviet Union. China and the Soviet Union replaced Western Europe as the major customers of Canadian grain.

By the end of the 1960s overall world supplies of wheat began to exceed demands resulting in low prices and large carryover stocks. However, while demand for wheat at the beginning of the 1970s was low, by 1973 a poor harvest in the Soviet Union led to increased demand and significantly higher prices. The rally in wheat prices pushed up prices of other grains up as well. Demands, and thus prices, remained high until 1979.

Wartime demands led to the beginnings of a more diversified crop production and export industry. While the majority of production and exports were still wheat, there was a small but increased demand for rapeseed and flax for industrial oil purposes. With increased mechanization the need for animal power, and thus the need for growing feed crops also began to decline. Thus, began a trend to increase the area of land seeded for export crops. The diversification of production and export of commodities beyond wheat grew slowly through the 1950s and 1960s but increased substantially with the introduction of canola, in the 1970s. Barley and canola production increased, in part in response to low wheat prices at the end of the 1960s. Acreages of other specialty crops (e.g. field peas and lentils) also began to appear in the 1970s as a method of diversification.

The marketing of wheat continued to become more centralized during this period. With increased mechanization, wheat supplies began to exceed the capacity of the storage and transportation system. The government's solution was to give the CWB the authority over grain transportation and storage by amending the CWB act to allow the CWB to issue permit books and quotas which rationed capacity equitably between farmers. In 1942, the government gave the CWB the authority to market and offer a floor price for barley, flax and oats in order to encourage farmers to grow barley, flax, oats and reduce the supply of wheat. The government was also heavily involved in the marketing of wheat to meet demands from Canada's allies; by 1943, Canada's WWII allies asked for wartime commitments of all Canada's grain. The response to this request was a mandatory wheat board as had existed in WWI. As grain prices rallied, Canadian consumers demanded protection. In response, the government instituted a two price policy with domestic prices lower than export prices. Farmers received a subsidy from government to cover the difference in prices. The centralized nature of the marketing of wheat, and other grains, during WWII resulted in an orderly system of handling and movement of the grain to export position.

Government involvement in grain marketing continued into the post-WWII period. Entering the 1950's the CWB had monopoly power over all wheat, oats and barley grown in Western Canada. In the 1960s the CWB began direct sales to customers rather than working through agents as it had before.

The wheat market was mature with increasing segregation and strong marketing structures; however, the markets for the new crops were still immature and marketing structures for these crops were undeveloped. Different approaches were taken to marketing these crops and farmers had to develop more marketing knowledge to sell these crops. Marketing options for these other commodities were available through grain brokers and grain companies.

Changes in economic conditions, labour availability and technology, had a large impact on grain production during this era. The economic depression and WWII facilitated the continuation of the mechanization trend that emerged in the

1920s. The federal government continued to invest in research to develop new agricultural technologies. Some of the industrial infrastructure developed for the war effort, was redirected toward development of agricultural technologies (e.g. inorganic fertilizers). These new technologies and the limited availability of labour resulted in the substitution of capital for labour. The adoption of these technologies also encouraged expansion of farm size, which made it possible for fewer farmers to produce a growing volume of output. The increased capitalization of crop production combined with these other factors also led to more specialization in crop production on farms and fewer mixed crop and livestock operations. The 1970s were a period of rapid change in the marketing of Canadian grain. New crops were developed and income from wheat production grew substantially (e.g. total farm value (unadjusted) of wheat in 1976 was twice the highest levels from the 1960s).

Improved techniques and technology meant that Canadian production continued to increase. The introduction of chemical fertilizers after WWII, and the beginnings of the pesticide use, contributed to an increase in total production. Wheat remained the dominant export grain; however, small amounts of other crops, particularly rapeseed, were beginning to contribute to export markets. This, combined with increased demand (and technical ability) to segregate wheat by a wider range of characteristics, resulted in more complexity in the grain handling system.

As the supply of grain increased and the locations of the markets for Canadian grain changed there was a need to more effectively move grain from the farm to dispersed markets around the world. Improved technologies on the farm also meant improved communication and local transportation and the need to further develop local road networks. These improvements also increased the ability of producers to move grain farther by truck than anticipated with the original network of grain elevators. Improvements in communication also meant a greater availability of information on prices and services at different locations.

The number of grain elevators slowly declined from 5074, at the end of the 1960s to 3607 at the end of the 1970s. Although the number of elevators declined, the total storage capacity of grain elevators reached its maximum during this same period, as grain companies began to construct new larger volume, high throughput elevators in the mid-1970s (e.g. Cargill at Elm Creek, Manitoba). In an attempt to increase control of the marketing and handling of grain farmer based high throughput elevators began to develop, with the establishment in 1976 of the Weyburn Inland Terminal.

Adaptations to technology, changing markets, and changing marketing structures dominated the approach to marketing prairie grain during this era. While wheat export values remained at or above earlier levels, the proportion that wheat contributed to Canada's export earnings continued to fall from 1940 onward, and by the end of the 1970s wheat accounted for only 4 to 8 % of total export earnings. As export earnings from other grains increased, wheat played a less significant role in the Canadian economy overall, while still remaining important to the prairie economy.

Adjustments in production and transportation

Changes in the mix of commodities, the demand and location of these commodities' markets, agronomic technologies, and the structures and technology involved in the handling and movement of grain were key influences on the marketing of grain from 1980 to the present. In addition, different marketing structures have developed in the emerging marketplaces for newer commodities.

Research and development have led to increases in production of all commodities in the last 30 years with the total volume of all crops being almost twice that produced in 1979. The average yearly production of wheat in the last 30 years is approximately the same as that produced in the highest production years of the previous period. At the same time wheat has decreased as a portion of the total grain production. Production of pulse crops (peas and lentils) began to increase in the late 1980s and is now approximately 30 times the production level of the 1970s. Canola production also increased during this period, current production levels are two to three times those of the late 1970s. While wheat volumes have remained significant, the value of wheat in proportion to the total value of grains has decreased from 55% in 1980 to 30% in 2009.

Asia continues to be a growing market for Canadian grains, oilseeds and specialty crops. However, the markets have been increasingly diverse and variable from year to year. Free trade agreements with the US and Mexico have increased demand for oilseeds and speciality crops in the last 20 years. The markets for wheat have been characterized by low prices over the last 30 years. Prices received for other commodities such as new specialty crops (particularly lentils and peas) and canola have followed the same trend but returns on the production of these commodities have been slightly higher.

Research and development has led to a variety of agronomic changes since 1980 that have had significant influence on the diversity of production, costs of production, and markets for different commodities. The maximum area seeded to wheat (35 million acres) occurred from the mid-1980s through to the early 1990s. From 1993-2009 there has been around a 30% decline in area seeded to wheat. However, as yields have improved, total wheat production has remained relatively steady. Improved varieties of lentils and peas suited for dryland production were developed; genetically modified canola varieties were also developed. New techniques for no-till production came into widespread use resulting in a decline in the amount of summerfallow and thus an increase in cropped acreage each year. Agronomic issues, such as the need to rotate crops from year to year to prevent disease, insect and weed issues and promote fertility, continue to play an important role in diversification of crops.

The marketing of grain has faced new challenges stemming from the increased diversity of grains. Different handling and transportation techniques are required in order to preserve the value of commodities such as lentils which shatter easily. As the quantity of production of these grains has grown, preliminary processing such as cleaning and bagging of lentils as well as other value added processes such as the crushing of canola have also developed. These have resulted

in increased requirements for marketing both the raw grains and the processed products and byproducts (e.g. canola meal and dried distillers grains). The marketing demands include specialized handling techniques (e.g. using conveyor belts), the use of containers and an increased number of small volume sales (e.g. 1000 tonnes). Meeting the specific timing needs for the marketing of these commodities has also challenged the system; for example, lentils are often subject to peak periods of demands due to their use in special cultural events.

Increased volumes of production and variety of crops, resulted in the replacement of aging handling infrastructure resulted with the construction of new facilities for the handling and storage of grain both on-farm and by grain companies. The delivery system shrank drastically from 3,357 primary and process elevators in 1980 to 365 elevators by 2010, the consolidation of the network significantly increased the average distance from farm to primary grain elevator. This was aided by technological developments in the road transportation sector, such as larger trucks.

The grain handling system has rapidly moved towards a just-in-time model, evolving from a push to a pull-demand system. In this system, grain can only enter the handling and transportation system once the sale of the grain has been made; as a result, there was an increased demand for on farm storage to accommodate holding grain outside the supply chain.

The CWB's dominance in the marketing of Western Canadian grain has declined as the amount of wheat and barley produced has decreased, as a proportion of total crop production. While, the CWB has developed a variety of options which have also changed the process of marketing and handling of grain; a variety of marketing structures have developed for the different commodities. As a result, there is a more diverse set of players involved in the marketing and transporting of prairie grain to an export position. While consolidation has continued to occur in some areas of the grain handling business (e.g. the replacement of the three prairie Pools, and United Grain Growers with Viterra), other smaller niche market players have developed.

As a more diverse set of players have become involved in the marketing system none of these players exhibit the same market power as the CWB showed in the previous period. These changes in market power have challenged the traditional approaches to marketing grain that has produced a more complex marketing system and an increase in competing demands on the handling and transportation system to address the supply and demands of the changing marketplace.

Today's grain marketing reflects the origins and growth of the industry and the geographic challenge of an export based industry in a region distant from its markets. While grain marketing faces many of the same challenges as it has in the past, Canadian grain marketing continues to be confronted with new challenges as the industry evolves. Adapting grain marketing to an environment that requires greater diversity continues to challenge the grain industry.

Appendix B: The Changing Regulatory Framework of the GHTS

While markets and infrastructure have played a integral role in changing the GHTS over the last 30 years, the regulatory environment has both reacted and influenced this change. This Appendix discusses the more significant changes in the rail regulatory environment, providing background on the regulations history as well as the reason the changes were sought.

Crow's Nest Pass Agreement

The movement of export grain by rail in Canada remained highly regulated in 1980. Moreover, the freight rates that applied on these shipments were essentially the same ones that had been set in place more than 80 years earlier. Widely known as the Crow's Nest Pass Freight Rates – or more simply as the Crow Rate – they arose out of an agreement originally struck between the Canadian Pacific Railway and the Government of Canada in 1897. The genesis for this agreement was the need for rail transportation in the region following the discovery of rich mineral deposits in the Kootenay region of southern British Columbia in the 1880s. These discoveries fostered a large influx of American developers, driving a rapid growth in mining activity. Although the CPR had already begun to extend its operations into the region from the northwest, the railway was growing increasingly concerned over the threat posed by the Great Northern Railway, which constructed its main line route from Minnesota to the Puget Sound in 1893. Wanting to accelerate its expansion into the region, the CPR approached the dominion government for assistance in constructing a line that would reach into the Kootenay from the eastern periphery of the Rockies.[42] The proposed route was to extend westward from Lethbridge, in the District of Alberta, Northwest Territories, through the Crow's Nest Pass, and on to Nelson, British Columbia.

The dominion government's interest was fuelled by broader political considerations. While supportive of the region's economic development, national sovereignty remained a powerful concern. The dominion government wanted to provide for the region's integration into the Canadian economy, and to shield it from the growing American influence. But it also knew that prairie farmers had been complaining bitterly about what they had deemed to be the onerous freight rates being charged by the CPR, and that extending CPR additional financial assistance would prove unpopular, unless some form of rate relief was gained. Moreover, the government believed that a reduction in the freight rates would have a broader benefit; one that would encourage economic expansion, stimulate interregional trade with

[42] Governmental subsidies were an established feature in the financing of railway construction in both Canada and the United States. Although the CPR had been extending its operations into the Kootenay region since the early 1890s, these were physically isolated from the rest of the company's network. In the case of its Nakusp and Slocan Railway subsidiary, a connection to the CPR's mainline at Revelstoke was accomplished through a company-owned steamship service on the Arrow Lakes. The railway was similarly connected to Slocan City, which was served by the CPR's Columbia and Kootenay Railway, through another steamship service.

eastern Canada, and ultimately draw more settlers to the west. Yet there was still another motive: the Government wanted the CPR to voluntarily accept the legitimacy of the national interest in rate-making.[43]

The CPR had its own reasons for agreeing to the rate-reduction put forward by the government as a condition in securing the financial assistance it was seeking. First, the railway observed that the aid being advanced by the Laurier government was more generous than that offered under previous Conservative governments, and that they would provide for more than half of the proposed line's construction costs. Furthermore, the associated land grants were equally large, and could effectively be used to preclude American encroachment, while CPR secured the benefits of any traffic arising from their commercial development.

It was upon this foundation that the CPR and the Government of Canada entered into what became known as the Crow's Nest Pass Agreement of 1897. The government provided the CPR with a subsidy of $3.4 million to aid in construction of the line as well as the right to several million acres of land. In return, the CPR agreed to reduce its prevailing freight rates, in perpetuity, on two commodity groupings important to the development of the prairies. The first of these was the inbound movement from eastern Canada of what were known as settlers' effects, which included such products as coal oil, agricultural implements, paint, building materials, livestock, and household furniture. Although the agreement specified a rate reduction in the order of 10% on the majority of these products, they reached as high as 33⅓% on fresh fruit.

The second grouping related to western Canadian grain and flour moving east to Fort William and Port Arthur (present-day Thunder Bay), and points east thereof. The freight rate on these goods was to be reduced by three cents per hundred weight, or roughly 15%, from those already in place. These rates did not remain in effect for long. They were substantially undercut in response to the competition from the newly created Canadian Northern Railway, and the Manitoba Agreement of 1901.[44] This reduction, which effectively produced a 30% cut in the company's 1897 rate for movements from Winnipeg to the head of Lake Superior, was followed by still others. The CPR voluntarily cut the rates on grain moving from what are now Saskatchewan and Alberta by about 10%.[45]

[43] It must be remembered that there were no regulatory controls in Canada at the time. Regulatory oversight in setting rates would only come following the creation of the Board of Railway Commissioners in 1904. Until then, rate-making was largely the purview of the railways alone. While the presence of competition had some sway over the setting of freight rates in eastern Canada, the CPR had been able to exercise almost unfettered monopolistic rate-making power in western Canada since completing its transcontinental route in 1885.

[44] The Canadian Northern Railway (CNoR) was organized in 1899 through the consolidation of several Manitoba-based branch lines. Convinced that only a railway with competing access to the waters of Lake Superior would ultimately break the monopoly of the CPR, the Manitoba government leased the Canadian-based operations of the bankrupt Northern Pacific Railway in 1901, and assigned the lease to the CNoR. With this nucleus, the CNoR – with the support of the Manitoba government – moved to build a connection to Port Arthur that would place it in direct completion with the CPR. In exchange for a provincial guarantee on all the bonds issued by the CNoR, the railway agreed to reduce the prevailing rate on grain moving from Manitoba to Lake Superior by four *cents per hundred pounds. Although the CPR initially refused to match this reduction, the Manitoba government later succeeded in convincing it to* do so.

[45] In an effort to prevent unjust discrimination, the Board of Railway Commissioners would order a further cut to these rates in 1910.

The Railway Act

The regulatory framework for railways operating in Canada grew out of the dominion government's concern over the public interest. At the dawn of the 20th century, shiploads of immigrants were pouring into the country's ports, and the railways, with their huge land grants, were largely responsible for where they settled. Moreover, the railways also controlled the movement of goods and passengers across the country. But as Canada's business interests became more dependent on the railways, shippers began to complain about freight rates and the virtual monopolies these carriers held. Much of their frustration centered on the railways' use of differential rates.

In Central Canada, where several railways vied with one another for customers, competition had helped to contain freight rates. There was also competition from water transportation as well as the American railways with which they interlined.[46] The railways operating in this region had begun to set competitively low rates, often offering special deals to their larger customers. But in regions where competition was low or non-existent, freight rates were set higher. Some of the loudest complaints came from western Canada where the only transcontinental railway, the CPR, had held a virtual monopoly since 1885.

Ultimately, this led to the creation of the Board of Railway Commissioners, an independent body with regulatory authority over the railways. Authorized under the Railway Act in 1903, the Board was empowered to hear all railway complaints with its decisions given the force of law. Not only did it have regulatory powers over the construction, operation and safety of railways, the Board also had sway over such matters as freight rates, fares, demurrage and other charges.[47] In short order the Board began to exercise this authority, issuing a number of important decisions relating to the movement of grain as well as other commodities.[48]

Still, at the time the Crow's Nest Pass Agreement was made, neither the Government of Canada nor the CPR could have envisioned the problems that would ensue. The most fundamental of these came with Canada's decision to abandon the gold standard at the outbreak of World War I. Were it not for this break, the lack of both an escalation clause and a termination date to the original agreement would likely have had much less significant consequences. Yet this single action brought about a number of changes, the greatest of which was the introduction of inflationary pressures never before experienced in Canada, with consumer prices shooting up by almost 60% during the war years.[49]

In short order, all of the nation's railways began to feel the effects of rising prices, and applied to the Board for immediate rate increases. But the Board felt itself bound by the specifics of the agreement that the dominion

[46] American carriers, such as the New York Central, had also gained access to southwestern Ontario and parts of Quebec.

[47] The *Railway Act* allowed for three commissioners, who enjoyed the independence of judges, with wide powers to review and amend freight and passenger rates, establish rules and regulations for employees, inspect new lines, require the installation of safety devices, and investigate accidents. Although judicial appeals were limited, the federal cabinet could review Board decisions.

[48] Many of these decisions touched on the issue of differential rates and whether such rates were in fact discriminatory. In an era when rate equalization was often advocated by various regional interests, the Board struggled to prevent what became known as unjust discrimination.

[49] It must be remembered that while the value of the Canadian dollar was pegged to that of gold, inflation was not something that the country had to deal with. Canada did not have a monetary policy while it was on the gold standard.

government had itself negotiated with the CPR. As such, the Board moved carefully around the rate increases it authorized in response to wartime inflationary pressures in 1917, ensuring that the maximums set out in the Crow's Nest Pass Agreement were not violated. It was, however, capable of raising the rates applicable on traffic not covered under the agreement by more substantive amounts. This it did, for the CPR as well as other railways. In effect, the Board authorized a general rate increase of 15% on traffic not covered under the Crow's Nest Pass Agreement, against 10% for those that were.[50]

This only served to fuel the larger debate over the inequities inherent in the prevailing rate structure, one that grew even more intense following the Board's later authorization for general rate increases of 25% and 40% in 1918 and 1920 respectively. It is worth noting that the dominion government itself abrogated the Crow's Nest Pass Agreement in 1918 when, under the War Measures Act, it lifted the rates applicable on the movement of export grain to a level above that set out in the agreement.

Needless to say, this created great consternation among western farmers. The CPR resisted attempts by the Board to re-impose the terms of the original Crow's Nest Pass Agreement after the war ended. At the same time, there were growing calls for the Crow Rate to be made applicable on grain moving to the west coast, and not just the head of Lake Superior. What followed was a period of complicated political and legal maneuvering. In essence, this resulted in the Crow Rate being reinstated in 1925, but broadened by Parliament to encompass grain moving from any railway line – not just that of the CPR – to Fort William and Port Arthur.[51] However, this satisfied virtually no one. Ultimately, the Board ordered that they be extended to the westbound movement of export grain as well. This set the stage for the rates on all grain shipments in western Canada – from any point on any railway – being made statutory in 1927.[52]

National Transportation Act

The imposition of such fixed rates in the face of a final break with the gold standard meant that railway revenues would progressively be undermined by inflation.[53] Although an important factor in reducing the farmers' real transportation cost, the revenues generated under the Crow Rate covered an ever-smaller fraction of the total cost incurred by the railways in transporting grain and excluded any margin of profit. Ultimately, as these services became increasingly non-remunerative, there would be no economic rational to support their continuation. Even so, the railways were expected to cross-subsidize the losses they incurred in moving grain – or any other commodity – with the profits they garnered

[50] It remains an interesting quirk of history that this resulted in the Board approving rates on the movement of grain from origins on the CNoR that were higher than those from comparable origins on the CPR.

[51] The provision regarding rates on the westbound movement of settlers' effects was cancelled at this same time.

[52] Set in 1927 at $5.00 per tonne, this rate effectively remained unchanged until the 1980s. Simple inflation would have escalated that $5.00 in 1927 to $225 in 1980

[53] Canada returned to the gold standard in 1926, but held to it only briefly. In effect, if not form, Canada went off the gold standard in 1929, with the formal abrogation coming in 1931. The advent of a formal monetary policy, entrusted to the newly created Bank of Canada in 1935, meant that inflation was now an accepted fact of economic life.

from handling more lucrative traffic. However, by the 1950s the competitive marketplace was changing, and the financial problems plaguing the North American railway industry at large were beginning to take on serious proportions.

In Canada, the federal government moved to study the situation. One of the most noteworthy efforts in this regard came in 1958 with the formation of the Royal Commission on Transportation – better known as the MacPherson Commission. The recommendations that followed three years later laid the foundation for what became the first substantive effort at deregulating the domestic railway industry. In addition to granting the railways a greater degree of commercial freedom, the National Transportation Act of 1967 mandated that they be compensated for any financial losses arising from services provided in the public interest.

The NTA represented a basic shift in public policy towards the railways. First, the notion that rates should somehow be equalized across regions was abandoned. Second, freight rates – save those governing grain – were effectively deregulated. The only regulatory restrictions were that these rates must be published and at least equal to the variable cost of production. In order to provide some protection to captive shippers, the newly created Canadian Transport Commission had the power to set a maximum rate equal to the variable cost of the movement plus 150%.[54] The NTA also allowed the railways to act collectively in setting rates.[55]

In its essence, the NTA shifted the cost of providing uneconomic services from the railways to the public. It had become readily apparent in the 1960s that CN and CP were both losing considerable amounts of money through the provision of uneconomic passenger services and branch line operations. Under the NTA, the railways were allowed to seek the abandonment of such uneconomic services. In the event that the Commission disallowed such requests, the carriers were to receive compensating subsidies.[56]

Although the government acknowledged that the railways' mounting losses from handling grain were rooted in the effects of an unchanging statutory rate structure, it opted not to tamper with what remained a politically-divisive issue. While giving the railways significantly wider latitude in setting the freight rates on other commodities, the Crow Rate would continue to hold sway over export grain shipments. That said, the government moved to address some of the symptoms that had emerged. A large part of this centred on the fact that the railways had consciously chosen not to invest in the assets needed to haul grain for a long time, and that, as a consequence, its related infrastructure and equipment were suffering from neglect. Given the undermining effects this had on the system's carrying capacity, the government moved to help the railways rehabilitate their branch line networks, and to supply them with new rolling stock.

[54] The Canadian Transport Commission succeeded the Board of Transport Commissioners, which itself succeeded the Board of Railway Commissioners in 1938.

[55] It should be noted that such joint rate making on the part of the railways was exempted from investigation under the Combines Investigation Act.

[56] These subsidies amounted to 80% on passenger services and 100% on uneconomic branch line operations.

As the Commission began to grapple with the myriad of financial losses besetting the railways, there was a growing recognition that the issues surrounding the movement of grain required a more in-depth examination. As an interim measure, the Commission placed a moratorium on the abandonment of branch lines in the prairies, designating a network of 12,400 miles of track that was to be protected until the year 2000. In addition, the federal government appointed retired Supreme Court justice Emmett Hall to head the Commission on Grain Handling and Transportation in 1975. Charged with investigating the transportation needs of grain producers, elevator operators and related businesses, the report it submitted in 1977 recommended a staged line abandonment from 1981 to 2000 of some 2,200 miles of grain-dependant prairie branch lines, with others being retained. In conjunction with this, the government also appointed Carl Snavely, an American transportation economist, to head the Commission on the Cost of Transporting Grain by Rail, and to quantify the losses that were being sustained by the railways. His report concluded that by 1974 these losses had risen to almost $160 million annually.

With these examinations complete, and against the backdrop of much heated discussion, the federal government asked University of Manitoba professor Dr. Clay Gilson to spearhead a task force aimed at developing a workable framework for the future movement of western Canadian grain. By the time the Gilson Report was released in 1982, the railways' revenue shortfall was approaching $700 million annually, and it recommended widespread changes to the entire grain delivery system. At its core was a consensus to the effect that the railways should be adequately compensated for the cost of moving grain. Moreover, it called for the sharing of that cost between the government and farmers.

Western Grain Transportation Act

The Western Grain Transportation Act of 1983 formalized that understanding, prescribing a government subsidy mechanism that became known as the Crow Benefit. In effect, it provided for a gradual escalation in the freight rates to be paid by farmers, with the government subsidizing any shortfall in revenue to the railways. The Act also committed the federal government to pay for the rehabilitation of a number of prairie branch lines, and to purchase additional hopper cars for the movement of grain. Service and efficiency improvements on the part of the railways were also mandated. In support of these objectives, a new entity, the Grain Transportation Agency, was broadly charged with ensuring that the grain transportation system was operated in an efficient, reliable and effective manner.[57] The role of the Canadian Transport Commission was modified somewhat, in as much as it now had to define the freight rates that were to be paid by farmers as well as the size of the Crow Benefit payable to the railways.

None of this was affected by the regulatory changes that the government introduced through amendments to the National Transportation Act in 1987. These were aimed largely at granting the railways a greater degree of commercial freedom in response to the deregulation of the American railway industry several years earlier. Moreover, it was also

[57] The Agency evolved from the previously established Grain Transportation Authority, which was created in 1979 to oversee the allocation of railcars between competing interests and to promote greater efficiency in the grain handling and transportation system.

intended to stimulate competition between the carriers themselves. Among its major reforms were the introduction of confidential contracts, the prohibition on collective rate making, the liberalization of interswitching limits, the establishment of competitive line rates, the facilitation of abandonment and line transfer procedures, and the adoption of final offer arbitration in rate disputes.

By the 1990s, however, there was a growing realization that the subsidization of the transportation costs associated with moving grain was seriously distorting the regional economy. At the same time, there was a new focus by the federal government to deal with its growing budget deficit. This brought pressure to bear on subsidy programs such as those embodied by the WGTA. Moreover, the federal government argued that the Crow Benefit constituted a farm subsidy that was no longer allowed under the General Agreement on Tariffs and Trade signed in 1994.

Canada Transportation Act

In response, the Government made broad changes in its grain transportation policy. In February 1995, the federal government passed the Budget Implementation Act, which, among other things, eliminated the WGTA effective 1 August 1995. The repeal of the WGTA eliminated the payment of the Crow Benefit to the railways for the movement of grain and related products. In conjunction with this, the federal government passed the Canada Transportation Act in 1996. Among other things, it eased the process associated with selling or abandoning rail lines, eliminated the need for oversight in railway mergers and acquisitions, and removed subsidies for uneconomic railway services.[58] It also redefined the regulatory framework tied to the movement of grain. In effect, it delineated a mileage-based set of maximum freight rates that were to be borne by the farmer directly.[59] As a result, shippers saw their freight costs more than double in the 1995-96 crop year.

To compensate for the drop in land values that was expected to result from the elimination of the WGTA, the government provided landowners with a one-time capital payment of $1.6 billion under the Western Grain Transition Payments Program. The WGTPP was allocated to each western province on the basis of their historical shares of the WGTA subsidy over the 10 years that it was in place. It also established the $300 million Western Grain Transportation Adjustment Fund to aid in the industry's adjustment to these changes.

But the policy changes initiated through the repeal of the WGTA and the passage of the CTA did not end in 1996. The Canadian government remained committed to advancing reforms aimed at improving the efficiency, accountability, and competitiveness of the railway industry in Canada. Much of the focus in this stemmed from its desire to remove the regulatory protection accorded grain. In 1997, former Supreme Court justice Willard Estey was commissioned to

[58] The earlier moratorium on prairie branch line abandonment was subsequently lifted by the Canadian Transportation Agency – the successor to the National Transportation Agency, and which replaced the Canadian Transport Commission in 1987.

[59] Although the abolishment of the WGTA eliminated the subsidy to the railways, the federal government remained committed to setting rates on a cost-recovery basis. The Canadian Transportation Agency continued setting rates so that they covered 100% of the railways' variable costs, plus a 20% contribution toward its fixed costs.

undertake another review of the grain handling and transportation system. His report, issued a year later, made a number of recommendations which ultimately laid the foundation for the reforms brought forward as amendments to the Canada Transportation Act in 2000. Chief among these was the replacement of the maximum rate scale with an annual cap on the revenues that CN and CP could earn from the movement of grain.

The adoption of the revenue cap granted the railways a significant degree of commercial freedom. To be sure, they now had the power to set the freight rates for the movement of grain according to market conditions, so long as the total freight revenue generated fell within the limits of the cap defined. Any revenue in excess of this limit, plus an appropriate penalty, was to be surrendered. In essence, the revenue cap marked a substantial shift away from the regulatory environment that had characterized so much of the preceding century.

Following on the heels of developments in both Great Britain and the United States, the first public railway in Canada opened for business in 1836. This first steam-powered railway, the Champlain and St. Lawrence Railroad, was typical of those that would follow in as much as it was designed to supplement the existing system of waterways. And while the railways figured prominently in the later development of the country, its initial development proved tentatively slow. In fact, until 1850, there was still less than 100 miles of track in all of British North America, much of it primitive in nature.

A large portion of the problem stemmed from the lack of adequate funding. Pressed by railway promoters to help, the Province of Canada passed the Guarantee Act of 1849, which effectively secured a 6% return on any bonds issued in favour of the construction of any railway reaching over 75 miles in length, provided that at least half the mileage had been completed.60 As intended, this served to stimulate early railway construction, and led to the establishment of the both the Great Western Railway and the Grand Trunk Railway; two of the most significant carriers in the pre-Confederation era.

[60] Under the Act, the provincial government held a first mortgage on the railways' property.

Appendix C - Transition of the Grain companies in the Western Canadian GHTS: Company's possessing licenses for Primary Elevators

Alberta Wheat Pool		Merged to form **Agricore in 1998**	Merged to form **Agricore United in 2001**	Merged to form **Viterra in 2007**	92
Manitoba Wheat Pool					
United Grain Growers					
Saskatchewan Wheat Pool					
Pioneer (Richardson)			Conagra properties purchased by **Richardson Grain** (05-06)	Changed name to **Richardson International**	59
ConAgra		Entered Canadian market in 1990's			
Cargill					36
ADM		Entered Canadian market in 1990's			2
Louis Dreyfus		Entered Canadian market in 1990's			10
Parish and Heimbecker					19
N.M. Patterson Grain				Changed name to **Patterson Global Foods**	35
Bunge			2004-05 CY		2
Terminal Elevator Companies					
CMI Terminal		1999			1
Gardiner Dam Terminal		2000			1
Great Northern Grain	1986				2
Great Sandhills Terminal		1995			1
Lethbridge Inland Terminal				2008-09 CY	1
Mainline Terminal				LY 2004-05 (sold to P&H)	0
Mid Sask Terminal				LY 2006-07 (sold to P&H)	0
Mission Terminal				2008-08 CY	2
North East Terminal		1992			1
North West Terminal		1996			1
Prairie West Terminal		1998			5
Providence Grain			2002		3
South West Terminal		1994			1
Terminal 22		1998		LY 2005-06 (sold to Cargill)	0
Westlock Terminals			2002		2
Westmore Terminals			2003-04 CY		1
Weyburn Inland Terminal	1976				2
Other					
Agro Source, Dawson Creek				2007-08 CY	1
Bestco Grain, Brunkild				2007-08 CY	1
BP and Sons Grain & Storage Inc, Morden				2008-09 CY	1
Canada Malting					9
Delmar Commodities, Winkler		1995			4
FGDI, North Dakota			2004-05 CY	LY 2008-09 (sold to various)	0
Fillmore Seeds, Fillmore	1986				6
Global Grain, Plum Coulee					1
Grain Solutions, Viking			2002	LY 2008-09	0
SS Johnson Seeds, Arborg, MB					1
Keystone Grain, Winkler		1993		To dealer in 07-08	0
Madreselva Foods Corp, Gadsby, AB				2007-08 CY	1
Mobil Grain, Regina				2008-09 CY	1
Natures Best Organics, Govan, SK				2007-08 CY	1
Nestibo Agra, Deloraine, MB				2007-08 CY	1

Prairie Heritage Seeds Ltd, Radville, SK	[redacted]		2007-07 CY	1
Prairie Sun Seeds Ltd, Souris, MB	[redacted]		2008-09 CY	1
RW Organic Ltd	[redacted]		2008-09 CY	1
Tri Lake Agri	[redacted]	2001-02 CY	→	2
Vandaele Seeds	[redacted]		2007-08 CY	1

Appendix D: Data Tables

S1-A- Volumes - Western Canadian Crop Production for Major Grains

S1-B - Western Canadian Crop Production for Special Crops

S1-C - Western Canada Deliveries to Primary Elevators

S1-D - Annual Port Volume Throughput (Shipments from Terminal Elevators) for Major Grains

S1-E - Annual Port Container Volume Throughput for All Grains

S2-A - Western Canada Exports by Region

S3–A - Domestic Processing of Cereals and Oilseeds in Canada

S4-A - Livestock on Farms Western Canada

S4-B - Estimated Farm Production of Livestock in Canada

S5-A - Western Canadian Primary and Process Grain Elevators - Summarized by Province

S5-B - Western Canadian Terminal Elevators - Summarized by Port

S6-A – Western Canadian Farm Cash Receipts ('000 dollars)

S6-B - Primary Elevation Tariffs - Receiving, Elevating and Loading Out

S6-C - Primary Elevation Tariffs - Removal of Dockage: Terminal Cleaning

S6-D - Primary Elevation Tariffs - Storage

S6-E - Annual Prices for Major Grains

Production/Supply

Western Canadian Crop Production for Major Grains (thousands of tonnes)

Prov / Com	NOTES	PRODUCTION YEAR																	
MANITOBA		**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Wheat		1,829.0	3,130.0	3,519.0	3,266.1	3,551.3	4,899.0	4,104.5	3,687.5	2,269.9	3,938.1	5,525.2	4,585.6	5,663.5	3,544.8	3,457.1	3,274.1	4,218.6	3,244.1
Durum		76.0	196.0	182.0	144.0	191.0	327.0	353.8	258.5	111.6	234.1	359.2	220.4	144.2	92.5	239.5	130.6	157.9	106.1
Barley		1,568.0	2,330.0	2,373.0	1,589.0	1,938.0	2,526.0	1,850.7	1,937.7	1,110.4	1,545.8	1,959.5	1,426.1	1,567.6	1,241.0	1,328.1	1,328.1	2,111.9	1,685.2
Canola		294.8	306.2	399.2	397.0	544.0	635.0	567.0	567.0	635.0	385.6	460.4	796.1	986.6	907.2	1,485.5	1,227.0	1,068.2	1,496.9
Oats		278.0	463.0	524.0	401.0	432.0	494.0	455.0	431.8	231.3	330.0	339.3	222.1	555.2	493.5	663.2	624.6	1,056.4	735.6
Dry Peas		49.0	79.0	81.7	68.0	81.6	100.7	103.4	144.2	78.9	70.8	73.5	84.4	108.9	85.7	168.7	147.0	132.0	178.3
Rye															43.2	38.1	53.3	66.0	62.2
Flaxseed		210.8	261.6	436.9	297.0	439.0	559.0	546.1	398.8	180.3	218.5	381.0	330.2	208.3	243.9	381.0	403.9	358.2	355.6
Other	(1)	470.8	780.6	522.5	403.6	459.7	287.7	217.7	268.9	207.9	258.2	383.5	458.2	224.4	161.8	353.4	277.7	328.3	303.9
		4,776.4	7,546.4	8,038.3	6,565.7	7,636.6	9,828.4	8,198.2	7,694.4	4,825.3	6,981.1	9,481.6	8,123.1	9,458.7	6,813.6	8,114.6	7,466.3	9,497.5	8,167.9
SASKATCHEWAN																			
Wheat		9,253.0	12,002.0	13,880.0	13,145.0	9,852.0	11,466.0	15,403.7	12,135.6	5,497.4	9,730.0	14,233.6	14,881.5	13,633.8	12,309.6	8,409.6	8,989.4	12,791.3	9,559.5
Durum		1,687.0	2,286.0	2,558.0	2,068.0	1,633.0	1,388.0	2,966.5	3,075.4	1,360.8	3,048.1	3,252.3	3,619.7	2,558.3	2,721.6	3,701.3	3,674.1	3,755.7	3,510.8
Barley		2,787.0	3,331.0	3,636.0	2,417.0	2,460.0	3,636.0	3,940.8	3,919.0	2,111.9	3,135.2	3,897.3	3,069.9	3,157.0	4,245.6	3,919.0	4,354.5	5,356.0	4,430.7
Canola		997.9	759.8	793.8	1,066.0	1,429.0	1,542.0	1,440.2	1,406.1	1,542.2	1,360.8	1,451.5	1,723.7	1,474.2	2,381.4	3,175.1	2,630.8	2,222.6	2,698.9
Oats		617.0	817.0	956.0	648.0	432.0	555.0	755.7	709.4	493.5	802.0	694.0	385.6	663.2	1,079.5	1,388.0	1,110.4	1,881.5	1,403.4
Dry Peas		19.1	22.0	59.9	34.0	36.7	57.2	119.7	223.2	141.5	84.4	103.4	160.6	244.9	585.1	898.1	868.2	729.4	1,158.1
Rye															165.1	221.0	139.7	134.6	138.5
Flaxseed		147.3	149.9	233.7	119.0	224.0	310.0	396.3	271.8	127.0	236.2	431.8	266.7	109.2	342.9	546.1	647.7	472.5	508.0
Other	(1)	131.8	154.0	175.1	157.9	148.6	197.4	443.1	452.1	212.7	315.1	566.3	481.6	506.2	682.6	980.7	777.4	884.3	719.2
		15,640.1	19,521.7	22,292.5	19,654.9	16,215.3	19,151.6	25,466.0	22,192.6	11,487.0	18,711.8	24,630.2	24,589.3	22,346.8	24,513.4	23,238.9	23,192.2	28,227.9	24,127.1
ALBERTA																			
Wheat		5,117.0	5,726.0	5,607.0	6,396.0	4,597.0	4,654.0	6,654.4	5,116.2	4,798.0	5,600.1	6,409.7	7,027.0	5,892.2	7,075.9	4,898.7	6,422.8	7,076.1	6,104.5
Durum		272.0	495.0	381.0	408.0	286.0	245.0	557.9	680.4	435.4	857.3	585.1	745.7	435.4	544.3	694.0	843.7	713.0	734.8
Barley		6,075.0	6,967.0	6,575.0	5,095.0	4,638.0	4,768.0	7,184.9	6,586.2	5,856.8	5,726.2	6,248.7	5,878.6	4,855.3	6,314.0	5,464.9	6,335.8	7,076.0	6,270.5
Canola		1,134.0	759.8	975.2	1,066.0	1,361.0	1,247.0	1,587.6	1,667.0	1,973.1	1,406.1	1,281.4	1,621.6	1,349.4	2,154.6	2,472.1	2,449.4	1,701.0	2,109.2
Oats		1,265.0	1,249.0	1,357.0	1,049.0	956.0	925.0	1,449.7	1,249.2	1,650.2	1,480.5	1,110.4	786.5	1,036.4	1,465.1	1,187.5	771.1	1,079.5	979.3
Dry Peas		7.9	9.5	15.2	14.7	12.8	10.9	15.8	47.6	99.3	78.9	87.1	164.7	151.0	299.4	374.2	412.3	307.5	421.8
Rye															81.3	88.9	66.1	64.1	66.1
Flaxseed		83.8	55.9	81.3	27.9	30.5	27.9	48.3	30.5	20.3	43.2	76.2	38.1	19.1	40.6	40.6	53.3	20.3	31.8
Other	(1)	244.0	220.9	218.5	212.4	184.9	171.6	119.3	110.8	104.9	97.4	107.0	100.3	81.2	203.0	201.1	254.4	192.8	235.4
		14,198.7	15,483.1	15,210.2	14,269.0	12,066.2	12,049.4	17,617.9	15,487.9	14,938.0	15,289.7	15,905.6	16,362.5	13,820.0	18,178.2	15,422.0	17,608.9	18,230.3	16,953.4
BRITISH COLUMBIA																			
Wheat		170.1	87.1	92.5	128.0	103.0	82.0	79.0	106.0	109.0	122.0	136.0	108.9	58.7	111.3	117.1	140.7	78.9	62.1
Durum		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Barley		219.9	176.4	189.4	185.0	142.0	115.0	174.2	137.2	119.7	135.0	124.1	100.2	53.3	84.9	55.5	93.6	79.5	84.9
Canola		56.7	22.7	49.9	57.0	57.0	29.0	45.4	49.9	40.8	31.8	29.5	37.4	32.7	43.1	54.4	61.2	19.1	22.7
Oats		60.1	49.4	64.8	67.0	49.0	37.0	65.5	61.7	76.3	79.4	53.2	52.8	49.4	110.3	77.1	56.3	31.6	33.5
Dry Peas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.2	4.1	4.1
Rye		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.8	2.8	1.7	2.8
Flaxseed		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	(1)	2.8	3.6	3.3	4.5	3.9	3.3	4.5	4.1	4.5	6.1	7.6	8.2	4.3	5.1	3.1	1.8	2.0	8.2
		509.6	339.2	399.9	441.5	354.9	266.3	368.6	358.9	350.3	374.3	350.4	307.5	198.4	356.2	311.0	383.6	216.9	218.3
WESTERN CANADA																			
Wheat		16,369.1	20,945.1	23,098.5	22,935.1	18,103.3	21,101.0	26,241.6	21,045.3	12,674.3	19,390.2	26,304.5	26,603.0	25,248.2	23,041.6	16,882.5	18,827.0	24,164.9	18,970.2
Durum		2,035.0	2,977.0	3,121.0	2,620.0	2,110.0	1,960.0	3,878.2	4,014.3	1,907.8	4,139.5	4,196.6	4,585.8	3,137.9	3,358.4	4,634.8	4,648.4	4,626.6	4,351.7
Barley		10,649.9	12,804.4	12,773.4	9,286.0	9,178.0	11,045.0	13,150.6	12,580.1	9,198.8	10,542.2	12,229.6	10,474.8	9,633.2	11,885.5	10,767.5	12,112.0	14,623.4	12,471.3
Canola		2,483.4	1,848.5	2,218.1	2,586.0	3,391.0	3,453.0	3,640.2	3,690.0	4,191.1	3,184.3	3,222.8	4,178.8	3,842.9	5,486.3	7,187.1	6,368.4	5,010.9	6,327.7
Oats		2,220.1	2,578.4	2,901.8	2,165.0	1,869.0	2,011.0	2,725.9	2,452.1	2,451.3	2,691.9	2,196.9	1,447.0	2,304.2	3,148.4	3,315.8	2,562.4	4,049.0	3,151.8
Dry Peas		76.0	110.5	156.8	116.7	131.1	168.8	238.9	415.0	319.7	234.1	264.0	409.7	504.8	970.2	1,441.0	1,454.7	1,173.0	1,762.3
Rye		-	-	-	-	-	-	-	-	-	-	-	-	-	291.1	351.8	261.9	266.4	269.6
Flaxseed		441.9	467.4	751.9	443.9	693.5	896.9	990.7	701.1	327.6	497.9	889.0	635.0	336.6	627.4	967.7	1,104.9	851.0	895.4
Other	(1)	849.4	1,159.1	919.4	778.4	797.1	660.0	784.6	835.9	530.0	676.8	1,064.4	1,048.3	816.1	1,052.5	1,538.3	1,311.3	1,407.4	1,266.7
		35,124.8	42,890.4	45,940.9	40,931.1	36,273.0	41,295.7	51,650.7	45,733.8	31,600.6	41,356.9	50,367.8	49,382.4	45,823.9	49,861.4	47,086.5	48,651.0	56,172.6	49,466.7

NOTES:

Source: Statistics Canada, *Field Crop Reporting Series*

(1)

Production/Supply

S1-A

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% VARIANCE 2009-2010	% VARIANCE 1980-2010	Prov Com
															MANITOBA
3,029.2	3,122.9	4,124.5	3,485.0	3,315.7	4,128.5	3,868.7	2,425.7	3,794.9	3,211.4	4,280.9	4,144.9	3,261.2	-21.3%	78.3%	Wheat
190.5	35.4	141.5	33.7	39.5	34.0	8.7	15.6	0.0	0.0	0.0	0.0	0.0	n/a	-100.0%	Durum
1,630.8	1,214.9	1,622.0	1,284.6	1,175.7	1,371.7	1,367.3	681.5	1,035.3	1,195.3	1,121.3	958.0	487.7	-49.1%	-68.9%	Barley
1,803.0	1,707.8	1,487.8	1,145.3	1,428.8	1,735.0	1,778.1	1,261.0	1,678.3	1,950.4	2,576.4	2,828.1	2,215.8	-21.7%	651.6%	Canola
1,030.2	854.4	1,016.3	771.1	1,017.9	1,095.0	903.7	440.7	967.4	1,204.5	1,116.6	771.1	542.9	-29.6%	95.3%	Oats
225.9	92.0	160.5	170.7	176.9	137.4	160.0	62.5	103.5	97.7	107.5	100.0	62.6	-37.4%	27.8%	Dry Peas
116.8	76.2	55.9	41.9	38.1	50.8	86.4	38.1	86.4	53.9	83.8	99.1	42.4	-57.2%	n/a	Rye
360.7	271.8	205.7	199.4	214.6	195.6	132.1	147.3	193.0	105.4	161.3	193.0	81.3	-57.9%	-61.4%	Flaxseed
449.8	481.5	578.2	462.0	905.7	993.7	184.7	429.9	977.5	951.7	940.2	986.0	1,078.4	9.4%	129.1%	Other
8,836.9	7,856.9	9,392.4	7,593.7	8,312.9	9,741.7	8,489.7	5,502.3	8,836.3	8,770.3	10,388.0	10,080.2	7,772.3	-22.9%	62.7%	
															SASKATCHEWAN
7,892.4	10,432.1	8,775.3	7,670.8	4,545.0	7,221.6	8,314.9	8,863.9	8,415.0	6,047.0	7,995.9	8,587.3	6,963.4	-18.9%	-24.7%	Wheat
4,708.3	3,407.4	4,757.3	2,517.4	2,939.3	3,211.4	3,946.3	4,878.4	2,688.9	3,011.4	4,441.6	4,406.2	2,602.9	-40.9%	54.3%	Durum
4,310.9	4,942.3	5,477.9	3,697.0	2,525.6	4,354.5	5,007.7	5,345.1	3,396.5	3,945.2	4,594.0	4,080.2	1,937.7	-52.5%	-30.5%	Barley
3,231.8	3,975.7	3,379.3	2,109.2	1,655.6	2,676.2	2,903.0	4,633.4	3,696.8	4,082.3	5,629.1	6,010.1	5,034.9	-16.2%	404.5%	Canola
1,758.1	1,534.5	1,377.2	1,033.3	1,048.7	1,202.9	1,434.3	1,671.8	1,727.3	2,401.2	2,267.1	1,465.1	701.7	-52.1%	13.7%	Oats
1,613.8	1,623.4	2,072.4	1,475.1	963.5	1,469.6	2,476.7	2,414.0	1,861.5	2,309.6	2,732.4	2,612.7	1,862.2	-28.7%	9649.7%	Dry Peas
152.4	168.4	97.8	55.6	27.9	129.5	165.1	184.4	189.2	99.1	110.5	105.7	87.6	-17.1%	n/a	Rye
680.8	711.2	469.9	482.6	444.5	533.4	355.6	881.4	759.5	511.8	666.8	708.7	311.2	-56.1%	111.3%	Flaxseed
999.6	1,347.1	1,619.2	1,210.9	777.9	979.5	1,584.5	1,793.4	1,016.8	1,157.6	1,324.5	1,879.5	2,241.9	19.3%	1601.0%	Other
25,348.1	28,142.1	28,026.3	20,251.9	14,928.0	21,778.6	26,188.1	30,665.8	23,751.5	23,565.2	29,761.9	29,855.5	21,743.5	-27.2%	39.0%	
															ALBERTA
5,609.2	7,321.1	6,539.4	5,606.5	2,830.5	5,422.6	6,789.7	7,527.7	6,846.1	5,406.1	7,658.5	6,447.3	7,748.3	20.2%	51.4%	Wheat
1,143.1	857.3	748.4	503.5	898.1	1,034.2	1,007.0	1,020.6	657.3	670.0	1,077.7	993.4	421.8	-57.5%	55.1%	Durum
5,660.8	5,987.4	5,388.7	5,225.4	2,569.1	5,530.2	5,835.0	5,565.0	4,404.6	5,114.3	5,447.5	3,840.7	4,528.7	17.9%	-25.5%	Barley
2,472.1	2,971.0	2,154.6	1,723.7	1,020.6	2,154.6	2,925.7	3,651.4	3,084.4	3,401.9	4,322.7	3,470.0	4,490.6	29.4%	296.0%	Canola
771.1	863.6	657.0	592.2	370.1	876.0	886.8	859.0	706.3	627.4	541.3	308.4	647.7	110.0%	-48.8%	Oats
488.0	530.8	620.5	541.6	221.6	507.9	698.1	617.5	552.6	527.5	731.4	666.7	937.6	40.6%	11768.4%	Dry Peas
77.5	72.4	42.5	34.3	16.1	82.8	102.9	79.0	57.2	36.8	76.2	38.1	50.8	33.3%	n/a	Rye
39.4	39.4	17.8	20.3	20.3	25.4	29.2	53.3	36.3	16.3	33.0	28.4	30.5	7.4%	-63.6%	Flaxseed
223.1	173.1	182.2	136.4	111.7	173.7	208.9	198.4	199.4	172.9	157.6	224.7	256.2	14.0%	5.0%	Other
16,484.3	18,816.1	16,351.1	14,383.9	8,058.1	15,807.4	18,483.3	19,571.9	16,544.2	15,973.2	20,045.9	16,017.7	19,112.2	19.3%	34.6%	
															BRITISH COLUMBIA
76.5	97.5	93.9	83.6	34.7	53.1	52.5	58.2	40.8	48.6	42.7	71.2	43.7	-38.6%	-74.3%	Wheat
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n/a	n/a	Durum
103.4	89.3	88.8	113.2	126.3	139.3	90.4	72.1	31.4	57.7	46.5	45.7	30.2	-33.9%	-86.3%	Barley
61.2	62.4	55.2	42.5	15.9	38.6	43.8	63.5	27.2	47.6	31.8	45.4	35.2	-22.5%	-37.9%	Canola
66.3	64.8	50.6	57.1	55.5	81.0	46.3	56.6	27.6	54.7	33.9	28.5	32.0	12.3%	-46.8%	Oats
9.1	5.7	10.9	9.0	3.5	9.5	3.4	5.8	2.3	0.0	0.0	0.0	0.0	n/a	n/a	Dry Peas
4.1	3.0	0.0	4.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n/a	n/a	Rye
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n/a	n/a	Flaxseed
6.1	3.9	3.4	2.2	3.9	6.1	3.8	6.5	3.3	0.0	1.0	0.0	0.0	n/a	-100.0%	Other
326.7	326.6	302.8	311.9	240.9	327.6	240.2	262.7	132.6	208.6	155.9	190.8	141.1	-26.0%	-72.3%	
															WESTERN CANADA
16,607.3	20,973.6	19,533.1	16,845.9	10,725.9	16,825.8	19,025.8	18,875.5	19,096.8	14,713.1	19,978.0	19,250.7	18,016.6	-6.4%	10.1%	Wheat
6,041.9	4,300.1	5,647.2	3,054.6	3,876.9	4,279.6	4,962.0	5,914.6	3,346.2	3,681.4	5,519.3	5,399.6	3,024.7	-44.0%	48.6%	Durum
11,705.9	12,233.9	12,577.4	10,320.2	6,396.7	11,395.7	12,300.4	11,663.7	8,867.8	10,312.5	11,209.3	8,924.6	6,984.3	-21.7%	-34.4%	Barley
7,568.1	8,716.9	7,076.9	5,020.7	4,120.9	6,604.4	7,650.6	9,609.3	8,486.7	9,482.2	12,560.0	12,353.6	11,776.5	-4.7%	374.2%	Canola
3,625.7	3,317.3	3,101.1	2,453.7	2,492.2	3,254.9	3,271.1	3,028.1	3,428.6	4,287.8	3,958.9	2,573.1	1,924.3	-25.2%	-13.3%	Oats
2,336.8	2,251.9	2,864.3	2,196.4	1,365.5	2,124.4	3,338.2	3,099.8	2,519.9	2,934.8	3,571.3	3,379.4	2,862.4	-15.3%	3666.3%	Dry Peas
350.8	320.0	196.2	136.1	83.2	263.1	354.4	301.5	332.8	189.8	270.5	242.9	180.8	-25.6%	n/a	Rye
1,080.9	1,022.4	693.4	702.3	679.4	754.4	516.9	1,082.0	988.8	633.5	861.1	930.1	423.0	-54.5%	-4.3%	Flaxseed
1,678.6	2,005.6	2,383.0	1,811.5	1,799.2	2,153.0	1,981.9	2,428.2	2,197.0	2,282.2	2,423.3	3,090.2	3,576.5	15.7%	321.1%	Other
50,996.0	55,141.7	54,072.6	42,541.4	31,539.9	47,655.3	53,401.3	56,002.7	49,264.6	48,517.3	60,351.7	56,144.2	48,769.1	-13.1%	38.8%	

Production/Supply

Western Canadian Crop Production for Special Crops (thousands of tonnes) (1)

Prov / Com	NOTES	PRODUCTION YEAR																
MANITOBA		**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Dry Peas		49.0	79.0	81.7	68.0	81.6	100.7	103.4	144.2	78.9	70.8	73.5	84.4	108.9	85.7	168.7	147.0	132.0
Lentils		-	15.0	18.1	11.3	13.6	15.0	20.9	37.2	7.3	15.0	38.1	64.0	79.4	24.1	49.9	28.5	21.0
Mustard Seed		16.3	19.1	10.7	11.6	13.6	15.0	17.2	7.7	6.0	7.4	13.2	8.9	3.5	3.8	4.1	2.6	4.9
Canary Seed		-	-	-	-	-	-	28.6	13.4	7.7	20.2	18.1	7.3	7.3	3.1	13.6	12.2	33.7
Chickpeas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry Beans		-	-	-	-	-	-	-	-	-	-	-	-	11.3	9.7	34.0	45.8	38.6
Sunflower Seed		158.8	158.8	87.3	40.8	79.4	59.0	33.1	44.5	42.6	63.0	100.7	124.3	55.3	47.2	86.6	43.5	37.7
Buckwheat		17.4	45.7	21.8	23.9	13.1	10.7	20.2	20.2	13.7	11.8	21.8	17.4	6.5	2.9	8.7	13.7	15.2
Fababeans		-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	6.0	5.8	5.4
		241.5	317.6	219.6	155.6	201.3	200.4	223.4	267.2	156.2	188.2	265.4	306.3	272.2	180.2	371.6	299.1	288.5
SASKATCHEWAN																		
Dry Peas		19.1	22.0	59.9	34.0	36.7	57.2	119.7	223.2	141.5	84.4	103.4	160.6	244.9	585.1	898.1	868.2	729.4
Lentils		-	38.1	68.0	45.4	24.9	46.3	145.1	235.9	49.9	79.4	172.4	272.2	254.0	315.2	381.0	381.9	373.8
Mustard Seed		49.0	54.4	38.6	49.9	81.6	95.3	176.9	100.2	90.7	117.9	201.8	81.7	109.7	180.0	278.9	190.6	196.9
Canary Seed		-	-	-	-	-	-	97.5	86.2	52.2	95.3	154.2	93.0	116.8	124.7	226.8	137.9	240.0
Chickpeas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry Beans		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower Seed		7.3	6.4	7.3	5.4	5.4	2.7	3.2	5.3	3.6	4.1	7.3	8.2	8.4	29.0	25.9	18.4	15.7
Buckwheat		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fababeans		-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.8	-	-
		75.4	120.9	173.8	134.7	148.6	201.5	542.4	650.8	337.9	381.1	639.1	615.7	733.8	1,234.8	1,811.5	1,597.0	1,555.8
ALBERTA																		
Dry Peas		7.9	9.5	15.2	14.7	12.8	10.9	15.8	47.6	99.3	78.9	87.1	164.7	151.0	299.4	374.2	412.3	307.5
Lentils		-	2.6	4.1	0.7	0.4	1.1	4.5	13.4	1.4	1.8	2.7	6.6	15.6	9.4	19.5	21.5	7.7
Mustard Seed		25.4	24.5	27.2	24.9	17.2	15.0	32.7	24.5	20.7	29.5	34.5	30.5	20.1	32.1	36.3	51.1	29.0
Canary Seed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	10.9
Chickpeas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry Beans		-	-	-	-	-	-	-	-	-	-	-	-	-	20.4	36.3	27.2	20.4
Sunflower Seed		-	-	-	-	-	-	3.6	2.0	2.3	1.1	2.3	2.1	1.1	2.3	4.5	4.3	1.5
Buckwheat		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fababeans		-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	0.1
		33.3	36.6	46.5	40.3	30.4	27.0	56.6	87.5	123.7	111.3	126.6	203.9	187.8	364.3	470.8	520.9	377.1
BRITISH COLUMBIA																		
Dry Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.2	4.1
Lentils		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mustard Seed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canary Seed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry Beans		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower Seed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buckwheat		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fababeans		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.2	4.1
WESTERN CANADA																		
Dry Peas		76.0	110.5	156.8	116.7	131.1	168.8	238.9	415.0	319.7	234.1	264.0	409.7	504.8	970.2	1,441.0	1,454.7	1,173.0
Lentils		-	55.7	90.2	57.4	38.9	62.4	170.5	286.5	58.6	96.2	213.2	342.8	349.0	348.7	450.4	431.9	402.5
Mustard Seed		90.7	98.0	76.5	86.4	112.4	125.3	226.8	132.4	117.4	154.8	249.5	121.1	133.3	215.9	319.3	244.3	230.8
Canary Seed		-	-	-	-	-	-	126.1	99.6	59.9	115.5	172.3	100.3	124.1	127.8	240.4	154.6	284.6
Chickpeas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry Beans		-	-	-	-	-	-	-	-	-	-	-	-	11.3	30.1	70.3	73.0	59.0
Sunflower Seed		166.1	165.2	94.6	46.2	84.8	61.7	39.9	51.8	48.5	68.2	110.3	134.6	64.8	78.5	117.0	66.2	54.9
Buckwheat		17.4	45.7	21.8	23.9	13.1	10.7	20.2	20.2	13.7	11.8	21.8	17.4	6.5	2.9	8.7	13.7	15.2
Fababeans		-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	6.8	5.8	5.5
		350.2	475.1	439.9	330.6	380.3	428.9	822.4	1,005.5	617.8	680.6	1,031.1	1,125.9	1,193.8	1,779.3	2,653.9	2,444.2	2,225.5

NOTES:

Source: Statistics Canada, *Field Crop Reporting Series*

(1)

Production/Supply

S1-B

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% VARIANCE 2009-2010	% VARIANCE 1980-2010	Prov Com
																MANITOBA
178.3	225.9	92.0	160.5	170.7	176.9	137.4	160.0	62.5	103.5	97.7	107.5	100.0	62.6	-37.4%	27.8%	Dry Peas
5.3	5.9	8.8	16.1	2.3	-	2.7	0.8	34.0	-	-	-	-	-	n/a	n/a	Lentils
6.3	3.4	1.9	3.3	3.4	10.0	10.4	2.7	-	-	-	-	-	-	n/a	-100.0%	Mustard Seed
9.2	24.9	7.6	17.2	11.3	23.6	31.8	11.4	7.9	3.7	6.3	11.0	7.4	8.7	17.6%	n/a	Canary Seed
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Chickpeas
47.7	72.1	121.6	147.4	128.6	231.3	165.5	38.5	63.8	153.3	102.1	95.9	89.2	83.2	-6.7%	n/a	Dry Beans
47.6	86.2	82.9	101.8	86.2	136.1	124.7	44.0	77.6	157.3	119.8	112.2	101.9	67.6	-33.7%	-57.4%	Sunflower Seed
9.8	10.9	8.7	9.8	10.5	7.1	5.4	1.5	4.6	7.4	2.3	-	-	-	n/a	-100.0%	Buckwheat
3.4	10.3	6.5	15.4	7.9	8.4	6.6	9.4	4.8	9.5	10.9	-	-	-	n/a	n/a	Fababeans
307.6	439.6	330.0	471.5	420.9	593.4	484.5	268.3	255.2	434.7	339.1	326.6	298.5	222.1	-25.6%	-8.0%	
																SASKATCHEWAN
1,158.1	1,613.8	1,623.4	2,072.4	1,475.1	963.5	1,469.6	2,476.7	2,414.0	1,861.5	2,309.6	2,732.4	2,612.7	1,862.2	-28.7%	9649.7%	Dry Peas
365.2	465.9	702.6	888.1	576.6	351.9	510.3	948.9	1,263.8	629.5	673.9	919.5	1,480.1	1,840.3	24.3%	n/a	Lentils
186.5	195.5	259.7	185.1	80.1	12.5	176.9	250.4	170.3	82.6	87.3	123.9	160.6	134.3	-16.4%	174.1%	Mustard Seed
102.1	201.8	152.0	148.6	78.9	137.9	183.7	284.4	219.3	129.1	155.7	184.6	151.9	101.9	-32.9%	n/a	Canary Seed
14.5	50.9	187.2	370.7	446.8	140.6	54.4	42.6	84.3	137.2	198.1	67.0	57.4	128.3	123.5%	n/a	Chickpeas
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Dry Beans
14.3	21.3	35.4	12.4	8.1	17.2	23.6	8.6	11.7	-	5.0	-	-	-	n/a	-100.0%	Sunflower Seed
1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Buckwheat
-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Fababeans
1,841.7	2,550.3	2,960.3	3,677.3	2,665.6	1,623.6	2,418.5	4,011.6	4,163.4	2,839.9	3,429.6	4,027.4	4,462.7	4,067.0	-8.9%	5293.9%	
																ALBERTA
421.8	488.0	530.8	620.5	541.6	221.6	507.9	698.1	617.5	552.6	527.5	731.4	666.7	937.6	40.6%	11768.4%	Dry Peas
8.3	8.0	12.4	9.9	5.9	1.9	6.9	11.3	14.1	-	-	-	30.1	106.8	254.8%	n/a	Lentils
50.6	39.7	44.8	13.8	5.4	19.1	38.8	52.4	31.1	25.6	27.0	37.1	47.7	52.5	10.1%	106.7%	Mustard Seed
3.7	8.6	6.4	5.0	1.7	2.4	4.1	4.7	-	-	-	-	-	-	n/a	n/a	Canary Seed
-	-	-	16.8	18.1	15.9	13.2	8.6	19.6	26.0	26.7	-	18.1	-	-100.0%	n/a	Chickpeas
36.3	45.4	42.7	43.5	54.5	31.7	60.3	43.1	57.8	52.2	54.4	34.9	49.9	34.3	-31.3%	n/a	Dry Beans
3.2	4.3	3.6	5.1	3.4	4.1	2.0	1.8	-	-	-	-	-	-	n/a	n/a	Sunflower Seed
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Buckwheat
0.9	2.3	-	-	2.3	0.7	1.8	5.9	5.0	4.8	-	-	-	-	n/a	n/a	Fababeans
524.8	596.3	640.7	714.6	632.9	297.4	635.0	825.9	745.1	661.2	635.6	803.4	812.5	1,131.2	39.2%	3297.0%	
																BRITISH COLUMBIA
4.1	9.1	5.7	10.9	9.0	3.5	9.5	3.4	5.8	2.3	-	-	-	-	n/a	n/a	Dry Peas
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Lentils
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Mustard Seed
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Canary Seed
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Chickpeas
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Dry Beans
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Sunflower Seed
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Buckwheat
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	Fababeans
4.1	9.1	5.7	10.9	9.0	3.5	9.5	3.4	5.8	2.3	0.0	0.0	0.0	0.0	n/a	n/a	
																WESTERN CANADA
1,762.3	2,336.8	2,251.9	2,864.3	2,196.4	1,365.5	2,124.4	3,338.2	3,099.8	2,519.9	2,934.8	3,571.3	3,379.4	2,862.4	-15.3%	3666.3%	Dry Peas
378.8	479.8	723.8	914.1	584.8	353.8	519.9	961.0	1,311.9	629.5	673.9	919.5	1,510.2	1,947.1	28.9%	n/a	Lentils
243.4	238.6	306.4	202.2	88.9	41.6	226.1	305.5	201.4	108.2	114.3	161.0	208.3	186.8	-10.3%	106.0%	Mustard Seed
115.0	235.3	166.0	170.8	91.9	163.9	219.6	300.5	227.2	132.8	162.0	195.6	159.3	110.6	-30.6%	n/a	Canary Seed
14.5	50.9	187.2	387.5	464.9	156.5	67.6	51.2	103.9	163.2	224.8	67.0	75.5	128.3	69.9%	n/a	Chickpeas
84.0	117.5	164.3	190.9	183.1	263.0	225.8	81.6	121.6	205.5	156.5	130.8	139.1	117.5	-15.5%	n/a	Dry Beans
65.1	111.8	121.9	119.3	97.7	157.4	150.3	54.4	89.3	157.3	124.8	112.2	101.9	67.6	-33.7%	-59.3%	Sunflower Seed
10.8	10.9	8.7	9.8	10.5	7.1	5.4	1.5	4.6	7.4	2.3	-	-	-	n/a	-100.0%	Buckwheat
4.3	13.7	6.5	15.4	10.2	9.1	8.4	15.3	9.8	14.3	10.9	-	-	-	n/a	n/a	Fababeans
2,678.2	3,595.3	3,936.7	4,874.3	3,728.4	2,517.9	3,547.5	5,109.2	5,169.5	3,938.1	4,404.3	5,157.4	5,573.7	5,420.3	-2.8%	1447.8%	

Grain Handling and Transportation System Volumes

Western Canada Deliveries to Primary Elevators (thousands of tonnes)

Prov / Comm	NOTES	CROP YEAR																
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
MANITOBA																		
Wheat		1,792.2	2,642.5	3,308.9	2,895.9	3,109.3	4,548.2	3,142.5	3,252.2	2,164.9	3,534.0	4,734.0	3,988.3	4,633.1	3,005.2	2,967.6	2,713.4	3,620.6
Durum		110.5	168.8	159.9	122.6	145.4	277.0	284.6	176.8	111.2	210.8	277.9	218.4	111.0	95.6	171.4	98.4	122.7
Barley		994.1	1,354.2	1,361.7	1,204.2	1,299.0	1,553.9	975.3	840.8	622.4	748.8	1,036.1	660.3	845.0	607.5	542.5	479.1	839.5
Canola		274.0	312.8	357.9	332.1	520.5	594.5	604.2	598.8	537.8	353.6	424.6	698.9	895.0	825.9	1,314.1	1,124.5	965.7
Oats		42.6	84.7	73.7	67.8	68.7	89.5	81.3	102.1	93.3	69.4	61.3	59.2	228.7	235.7	339.8	326.5	657.0
Peas	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye	(1)	72.9	133.5	140.7	153.9	135.1	76.0	37.0	46.2	49.7	121.7	78.1	35.6	34.3	22.1	27.1	43.2	50.1
Flaxseed		213.1	201.9	310.7	229.6	323.7	426.5	437.8	315.0	159.2	151.8	215.5	240.8	188.1	246.7	321.1	288.5	264.6
		3,499.4	4,898.4	5,713.5	5,006.1	5,601.7	7,565.6	5,562.7	5,331.9	3,738.5	5,190.1	6,827.5	5,901.5	6,935.2	5,038.7	5,683.6	5,073.6	6,520.2
SASKATCHEWAN																		
Wheat		9,257.1	9,833.0	13,607.1	11,998.0	9,010.5	10,461.6	11,231.1	11,585.4	5,758.2	8,694.5	12,327.4	12,728.3	11,938.4	10,536.5	8,557.6	7,431.6	10,494.6
Durum		2,267.5	2,006.2	2,363.7	1,823.8	1,437.9	1,225.2	2,261.2	2,535.1	1,305.3	2,730.2	2,653.3	2,828.2	2,170.9	2,801.7	3,489.5	3,061.9	3,260.3
Barley		1,880.9	2,090.6	2,085.3	2,093.5	1,447.9	2,211.8	2,467.5	2,064.9	1,609.3	1,998.6	2,502.5	1,920.0	2,007.3	2,535.3	2,699.8	2,813.2	3,299.0
Canola		731.0	729.7	575.8	801.4	1,093.4	1,061.6	1,107.1	1,128.8	1,290.5	1,197.1	1,185.6	1,329.8	1,290.4	1,988.0	2,543.0	1,964.5	1,733.1
Oats		86.7	97.8	69.3	92.5	40.9	59.2	93.8	150.9	194.8	172.0	132.0	111.8	266.6	519.8	736.8	539.9	969.4
Peas	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye	(1)	130.7	239.9	245.4	357.3	142.8	124.5	154.3	155.4	72.4	213.4	193.9	131.2	108.9	83.3	125.3	98.4	62.6
Flaxseed		146.2	122.3	159.6	123.3	188.5	235.3	305.9	254.9	121.2	190.8	231.3	206.3	140.1	305.9	446.2	466.2	303.6
		14,500.1	15,119.5	19,106.2	17,289.8	13,361.9	15,379.2	17,620.9	17,875.4	10,351.7	15,196.6	19,226.0	19,255.6	17,922.6	18,770.5	18,598.2	16,375.7	20,122.6
ALBERTA & BRITISH COLUMBIA																		
Wheat		4,852.8	4,588.4	5,546.0	5,855.6	4,278.3	4,267.0	5,100.2	4,677.6	4,150.3	4,843.4	5,569.1	5,970.2	4,909.2	5,533.3	4,759.9	5,242.0	5,720.4
Durum		343.9	431.7	344.7	326.9	200.8	188.5	387.8	527.6	374.4	699.8	498.8	551.6	404.6	503.1	641.4	779.4	599.3
Barley		3,555.4	1,060.1	3,576.1	3,392.2	2,329.6	2,668.9	4,005.6	2,839.6	3,338.9	2,679.4	2,771.8	2,444.9	2,036.2	2,820.7	2,555.0	2,801.5	2,847.4
Canola		1,148.1	948.2	1,081.8	1,130.1	1,370.2	1,269.5	1,652.4	1,600.4	1,664.5	1,442.0	1,350.1	1,711.2	1,574.8	2,214.8	2,491.7	2,357.7	1,848.8
Oats		262.0	320.8	221.9	246.4	204.5	171.1	281.6	346.3	806.5	430.9	245.3	271.4	340.9	529.4	513.4	360.3	276.0
Peas	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye	(1)	149.9	234.8	132.1	179.6	52.8	38.3	68.0	56.0	50.4	73.6	32.2	38.5	31.0	53.2	66.7	52.7	40.4
Flaxseed		65.0	52.5	65.8	27.7	20.7	27.5	33.7	31.0	14.8	25.2	36.3	36.7	29.5	37.7	32.4	28.1	10.8
		10,377.1	7,636.5	10,968.4	11,158.5	8,456.9	8,630.8	11,529.3	10,078.5	10,399.8	10,194.3	10,503.6	11,024.5	9,326.2	11,692.2	11,060.5	11,621.7	11,343.1
WESTERN CANADA																		
Wheat		15,902.1	17,063.9	22,462.0	20,749.5	16,398.1	19,276.8	19,473.8	19,515.2	12,073.4	17,071.9	22,630.5	22,686.8	21,480.7	19,075.0	16,285.1	15,387.0	19,835.6
Durum		2,721.9	2,606.7	2,868.3	2,273.3	1,784.1	1,690.7	2,933.6	3,239.5	1,790.9	3,640.8	3,430.0	3,598.2	2,686.5	3,400.4	4,302.3	3,939.7	3,982.3
Barley		6,430.4	4,504.9	7,023.1	6,689.9	5,076.5	6,434.6	7,448.4	5,745.3	5,570.6	5,426.8	6,310.4	5,025.2	4,888.5	5,963.5	5,797.3	6,093.8	6,985.9
Canola		2,153.1	1,990.7	2,015.5	2,263.6	2,984.1	2,925.6	3,363.7	3,328.0	3,492.8	2,992.7	2,960.3	3,739.9	3,760.2	5,028.7	6,348.8	5,446.7	4,547.6
Oats		391.3	503.3	364.9	406.7	314.1	319.8	456.7	599.3	1,094.6	672.3	438.6	442.4	836.2	1,284.9	1,590.0	1,226.7	1,902.4
Peas	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye	(1)	353.5	608.2	518.2	690.8	330.7	238.8	259.3	257.6	172.5	408.7	304.2	205.3	174.2	158.6	219.1	194.3	153.1
Flaxseed		424.3	376.7	536.1	380.6	532.9	689.3	777.4	600.9	295.2	367.8	483.1	483.8	357.7	590.3	799.7	782.8	579.0
		28,376.6	27,654.4	35,788.1	33,454.4	27,420.5	31,575.6	34,712.9	33,285.8	24,490.0	30,581.0	36,557.1	36,181.6	34,184.0	35,501.4	35,342.3	33,071.0	37,985.9

NOTES:

Source: "Visible Grain Supplies and Disposition" and "Grain Statistics Weekly", Canadian Grain Commission www.grainscanada.gc.ca

(1) Canadian Grain Commission data for pea deliveries replaced data for rye deliveries as of the beginning of the 2003/04 crop year. Rye delivery data reintroduced as of 2008/09 crop year.

Grain Handling and Transportation System Volumes

S1-C

1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	% VARIANCE 08-09/09-10	% VARIANCE 99-00/09-10	Prov	COMMODITY
																MANITOBA
2,763.2	2,551.9	2,819.5	3,422.6	2,869.1	2,894.8	3,458.3	3,142.6	2,356.3	3,240.0	2,942.9	3,615.6	3,605.9	-0.3%	101.2%		Wheat
86.4	160.8	42.3	23.3	23.5	43.4	19.8	8.4	10.6	2.5	1.8	3.5	4.7	34.3%	-95.7%		Durum
554.4	383.6	352.2	492.8	295.6	327.0	296.1	188.9	166.9	278.2	425.3	215.5	183.2	-15.0%	-81.6%		Barley
1,260.7	1,489.6	1,212.2	1,292.7	823.5	1,232.6	1,614.9	1,303.4	1,090.8	1,463.2	1,537.4	1,988.6	2,167.3	9.0%	691.0%		Canola
390.0	541.1	566.0	613.7	454.3	618.5	670.0	458.1	299.0	686.0	884.1	562.4	557.7	-0.8%	1209.2%		Oats
-	-	-	-	-	-	67.2	79.3	28.8	30.5	33.9	32.0	15.9	-50.3%	n/a		Peas
45.1	67.1	56.6	39.1	11.8	19.4	-	-	-	-	-	26.7	64.8	142.7%	-11.1%		Rye
259.3	265.3	178.6	164.2	153.0	160.9	154.7	107.4	72.0	127.5	111.3	108.8	152.6	40.3%	-28.4%		Flaxseed
5,359.1	5,459.4	5,227.4	6,048.4	4,630.8	5,296.6	6,281.0	5,288.1	4,024.4	5,827.9	5,936.7	6,553.1	6,752.1	3.0%	93.0%		
																SASKATCHEWAN
8,384.1	5,881.3	8,237.8	7,481.4	6,505.9	3,373.2	5,504.2	5,444.0	6,156.9	7,004.6	4,730.1	5,959.7	6,676.8	12.0%	-27.9%		Wheat
3,060.1	3,607.4	2,899.3	3,195.2	2,593.4	2,484.1	2,166.0	2,629.2	3,252.5	2,967.4	2,326.7	3,010.0	2,657.3	-11.7%	17.2%		Durum
2,582.9	2,145.5	2,487.5	2,938.7	1,979.1	1,065.6	2,294.7	2,230.2	2,598.8	1,845.1	2,085.5	1,996.0	1,739.7	-12.8%	-7.5%		Barley
2,004.9	2,393.2	2,576.0	2,968.3	1,620.2	1,307.9	1,882.9	1,525.5	2,774.3	2,634.3	2,637.4	3,625.5	3,753.0	3.5%	413.4%		Canola
607.9	735.9	717.2	817.8	639.1	340.6	482.9	567.7	960.1	893.4	1,395.7	1,124.1	876.3	-22.0%	910.7%		Oats
-	-	-	-	-	-	568.3	1,201.1	1,309.9	1,087.2	1,243.4	1,483.0	1,289.3	-13.1%	n/a		Peas
56.3	34.4	38.9	37.2	11.1	148.1	-	-	-	-	-	16.8	45.6	171.4%	-65.1%		Rye
370.9	411.6	408.2	405.1	405.9	341.2	384.0	263.2	436.5	545.1	422.1	377.1	519.6	37.8%	255.4%		Flaxseed
17,067.1	15,209.3	17,364.9	17,843.7	13,754.7	9,060.7	13,283.0	13,860.9	17,489.0	16,977.1	14,840.9	17,592.2	17,557.6	-0.2%	21.1%		
																ALBERTA & BRITISH COLUMBIA
4,958.9	4,208.7	5,881.6	4,518.4	3,677.5	2,281.6	4,257.9	5,035.7	5,128.1	5,471.3	4,868.9	5,991.3	5,160.5	-13.9%	6.3%		Wheat
645.4	1,082.5	804.5	588.0	364.3	889.7	753.7	944.0	861.5	797.9	577.8	767.1	625.6	-18.4%	81.9%		Durum
2,049.2	1,549.4	1,790.4	1,560.7	958.0	621.4	1,536.9	1,028.4	1,071.6	1,055.1	1,661.8	941.2	520.7	-44.7%	-85.4%		Barley
1,347.5	1,603.8	1,931.8	1,802.2	1,332.7	855.0	1,707.5	2,087.1	2,991.2	2,750.9	2,839.9	3,338.1	2,820.4	-15.5%	145.7%		Canola
129.1	91.3	80.4	72.8	86.3	56.1	119.4	92.5	126.5	165.0	125.4	57.5	37.9	-34.1%	-85.5%		Oats
-	-	-	-	-	-	181.0	285.4	374.0	351.0	333.0	466.7	374.5	-19.8%	n/a		Peas
42.4	44.7	23.5	18.4	6.9	34.7	-	-	-	-	-	4.6	8.3	80.4%	-94.5%		Rye
13.6	11.7	16.2	13.8	13.8	8.2	12.1	15.5	13.4	12.0	14.9	15.8	19.9	25.9%	-69.4%		Flaxseed
9,186.1	8,592.1	10,528.4	8,574.3	6,439.5	4,746.7	8,568.5	9,488.6	10,566.3	10,603.2	10,421.7	11,582.3	9,567.8	-17.4%	-7.8%		
																WESTERN CANADA
16,106.2	12,641.9	16,938.9	15,422.4	13,052.5	8,549.6	13,220.4	13,622.3	13,641.3	15,715.9	12,541.9	15,566.6	15,443.2	-0.8%	-2.9%		Wheat
3,791.9	4,850.7	3,746.1	3,806.5	2,981.2	3,417.2	2,939.5	3,581.6	4,124.6	3,767.8	2,906.3	3,780.6	3,287.6	-13.0%	20.8%		Durum
5,186.5	4,078.5	4,630.1	4,992.2	3,232.7	2,014.0	4,127.7	3,447.5	3,837.3	3,178.4	4,172.6	3,152.7	2,443.6	-22.5%	-62.0%		Barley
4,613.1	5,486.6	5,720.0	6,063.2	3,776.4	3,395.5	5,205.3	4,916.0	6,856.3	6,848.4	7,014.7	8,952.2	8,740.7	-2.4%	306.0%		Canola
1,127.0	1,368.3	1,363.6	1,504.3	1,179.7	1,015.2	1,272.3	1,118.3	1,385.6	1,744.4	2,405.2	1,744.0	1,471.9	-15.6%	276.2%		Oats
-	-	-	-	-	-	816.5	1,565.8	1,712.7	1,468.7	1,610.3	1,981.7	1,679.7	-15.2%	n/a		Peas
143.8	146.2	119.0	94.7	29.8	202.2	-	-	-	-	-	48.1	118.7	146.8%	-66.4%		Rye
643.8	688.6	603.0	583.1	572.7	510.3	550.8	386.1	521.9	684.6	548.3	501.7	692.1	38.0%	63.1%		Flaxseed
31,612.3	29,260.8	33,120.7	32,466.4	24,825.0	19,104.0	28,132.5	28,637.6	32,079.7	33,408.2	31,199.3	35,727.6	33,877.5	-5.2%	19.4%		

Terminal Elevator and Port Volume Throughput

Annual Port Volume Throughput (Shipments from Terminal Elevators) for Major Grains (thousands of tonnes) (1)

PORT / GRAIN	NOTES	CROP YEAR																
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
VANCOUVER																		
Wheat		4,464.1	5,448.3	6,428.2	6,742.7	5,733.9	6,797.9	6,548.1	8,772.6	5,196.8	7,167.4	7,387.8	10,238.2	9,273.3	7,664.0	8,390.0	6,713.5	7,060.3
Durum		369.2	462.5	238.1	111.4	163.4	164.9	234.8	103.8	214.7	393.7	271.6	554.2	633.6	404.5	561.3	886.0	816.0
Barley		1,972.0	2,949.1	2,052.1	2,067.0	1,823.1	1,967.3	2,633.2	2,118.9	1,579.2	1,757.5	1,995.4	1,695.5	1,116.0	976.5	1,084.1	1,043.6	1,246.2
Canola		1,220.6	1,197.3	1,154.2	1,380.6	1,354.9	1,417.4	2,057.5	1,698.4	1,890.5	1,901.9	1,846.0	1,837.8	1,722.1	2,602.8	2,751.9	2,316.4	2,039.5
Oats		0.1	-	2.3	1.6	-	2.6	42.7	8.5	35.2	19.2	19.0	21.0	29.0	19.0	24.8	20.6	6.6
Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye		108.9	129.8	124.0	652.7	345.1	191.7	144.4	145.7	105.2	266.6	257.9	142.2	141.6	76.9	56.1	78.6	31.4
Flaxseed		155.8	132.2	128.4	168.9	127.8	219.8	205.7	168.0	101.3	93.1	126.0	151.5	126.4	170.3	183.9	151.6	105.1
		8,290.7	10,319.2	10,127.3	11,124.9	9,548.2	10,761.6	11,866.4	13,015.9	9,122.9	11,599.4	11,903.7	14,640.4	13,042.0	11,914.0	13,052.1	11,210.3	11,305.1
PRINCE RUPERT																		
Wheat		1,233.7	1,251.7	1,377.8	1,366.8	1,001.0	1,098.9	3,254.4	3,571.3	1,962.3	2,866.4	2,723.6	4,222.3	3,510.9	3,379.5	4,436.3	3,098.5	3,140.7
Durum		-	-	0.1	-	-	-	-	0.1	-	0.1	0.1	-	0.2	0.1	0.9	-	1.3
Barley		0.2	-	-	-	0.1	282.0	904.7	389.1	729.5	1,926.4	1,846.0	1,067.8	1,326.6	1,124.6	803.7	481.9	905.3
Canola		-	-	0.5	16.3	27.1	2.3	0.6	-	13.5	0.2	0.5	0.6	-	-	-	0.9	-
Oats		-	-	-	-	-	-	-	-	0.1	0.1	-	-	0.1	-	-	-	-
Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye		-	0.1	-	-	-	17.6	-	-	-	7.0	-	-	-	-	-	-	-
Flaxseed		-	-	-	-	-	-	0.9	-	1.1	-	-	-	-	-	-	-	-
		1,233.9	1,251.8	1,378.4	1,383.1	1,028.2	1,400.8	4,160.6	3,960.5	2,706.5	4,800.2	4,570.2	5,290.7	4,837.8	4,504.2	5,240.9	3,581.3	4,047.3
CHURCHILL																		
Wheat		280.0	294.0	388.9	22.6	429.0	236.0	-	-	50.1	19.5	343.1	201.2	218.2	241.0	291.3	227.3	335.7
Durum		-	-	-	-	-	-	-	-	-	18.8	-	-	-	-	-	-	-
Barley		9.5	144.4	168.1	599.2	8.2	155.7	558.1	568.9	-	270.5	33.0	32.3	31.4	-	-	-	-
Canola		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flaxseed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		289.5	438.4	557.0	621.8	437.2	391.7	558.1	568.9	50.1	308.8	376.1	233.5	249.6	241.0	291.3	227.3	335.7
THUNDER BAY																		
Wheat		9,034.0	10,005.5	11,562.7	12,166.3	9,763.2	8,431.5	9,717.6	8,277.8	4,112.8	5,136.9	9,062.0	7,234.3	4,408.5	3,885.2	3,188.1	2,408.0	4,485.7
Durum		1,952.3	2,144.5	2,653.1	2,474.3	1,747.5	1,283.8	2,020.6	3,402.9	1,567.1	2,820.0	2,755.2	2,571.9	1,635.0	2,236.7	3,560.2	2,127.8	2,392.4
Barley		2,219.0	3,197.2	3,498.2	3,352.7	1,164.3	1,793.8	2,501.6	1,407.0	758.0	534.3	535.2	190.8	150.6	477.2	656.8	523.9	820.0
Canola		127.0	141.0	125.0	198.1	149.6	151.9	196.6	246.0	297.9	242.8	261.2	245.4	312.0	682.4	1,264.7	572.3	453.9
Oats		256.4	260.4	259.0	268.7	117.5	92.0	252.7	263.2	577.0	256.4	32.6	96.5	303.3	745.0	914.5	185.5	240.7
Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye		316.0	377.0	122.4	75.9	12.0	17.0	26.8	34.3	11.4	26.1	14.2	6.5	18.4	18.9	13.3	9.2	4.0
Flaxseed		287.0	229.0	243.3	331.9	322.1	323.2	416.8	388.9	189.9	223.0	203.3	159.7	170.3	287.1	465.0	394.1	275.4
		14,191.7	16,354.6	18,463.7	18,867.9	13,276.2	12,093.2	15,132.7	14,020.1	7,514.1	9,239.5	12,863.7	10,505.1	6,998.1	8,332.5	10,062.6	6,220.8	8,672.1
ALL PORTS																		
Wheat		15,011.8	16,999.5	19,757.6	20,298.4	16,927.1	16,564.3	19,520.1	20,621.7	11,322.0	15,190.2	19,516.5	21,896.0	17,410.9	15,169.7	16,305.7	12,447.3	15,022.4
Durum		2,321.5	2,607.0	2,891.3	2,585.7	1,910.9	1,448.7	2,255.4	3,506.8	1,781.8	3,232.6	3,026.9	3,126.1	2,268.8	2,641.3	4,122.4	3,013.8	3,209.7
Barley		4,200.7	6,290.7	5,718.4	6,018.9	2,995.7	4,198.8	6,597.6	4,483.9	3,066.7	4,488.7	4,409.6	2,986.4	2,624.6	2,578.3	2,544.6	2,049.4	2,971.5
Canola		1,347.6	1,338.3	1,279.7	1,595.0	1,531.6	1,571.6	2,254.7	1,944.4	2,201.9	2,144.9	2,107.7	2,083.8	2,034.1	3,285.2	4,016.6	2,889.6	2,493.4
Oats		256.5	260.4	261.3	270.3	117.5	94.6	295.4	271.7	612.3	275.7	51.6	117.5	332.4	764.0	939.3	206.1	247.3
Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rye		424.9	506.9	246.4	728.6	357.1	226.3	171.2	180.0	116.6	299.7	272.1	148.7	160.0	95.8	69.4	87.8	35.4
Flaxseed		442.8	361.2	371.7	500.8	449.9	543.0	623.4	556.9	292.3	316.1	329.3	311.2	296.7	457.4	648.9	545.7	380.5
		24,005.8	28,364.0	30,526.4	31,997.7	24,289.8	24,647.3	31,717.8	31,565.4	19,393.6	25,947.9	29,713.7	30,669.7	25,127.5	24,991.7	28,646.9	21,239.7	24,360.2

NOTES:

Source: Canadian Grain Commission www.grainscanada.gc.ca

(1) Shipments data varies slightly from that reported in "Monitoring the Canadian Grain Handling and Transportation System" reports due to revisions and absense of "other" grains, oilseeds and special crops.

Terminal Elevator and Port Volume Throughput

S1-D

1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10		% VARIANCE 08-09/09-10	% VARIANCE 80-81/09-10	GRAIN
																VANCOUVER
6,415.5	5,574.9	6,748.9	6,282.5	6,028.8	1,395.1	4,200.3	5,056.3	4,606.6	4,037.5	3,979.0	5,091.2	5,804.0		14.0%	30.0%	**Wheat**
1,292.3	1,108.8	925.5	512.1	423.4	183.9	495.9	493.5	554.1	625.7	320.2	301.3	601.6		99.7%	62.9%	**Durum**
1,015.8	451.1	927.3	1,271.6	499.2	68.7	813.1	851.3	1,536.9	749.5	1,120.7	681.7	907.4		33.1%	-54.0%	**Barley**
2,315.1	3,233.6	-	4,124.8	2,186.4	1,297.5	2,878.7	2,449.2	4,170.5	3,890.5	3,984.8	6,338.6	5,901.0	84%	-6.9%	383.5%	**Canola**
10.5	10.9	3.0	12.1	10.7	1.1	10.1	-	1.9	51.5	51.5	14.7	9.0		-38.8%	8900.0%	**Oats**
-	-	-	-	-	-	-	-	-	1,233.7	1,545.2	1,848.4	1,667.9		-9.8%	n/a	**Peas**
24.9	1.1	59.9	1.0	0.2	-	-	-	-	-	-	2.9	36.3		1151.7%	-66.7%	**Rye**
78.1	97.6	3,361.3	62.5	85.9	11.3	25.2	19.5	14.7	16.1	11.4	26.7	256.0		858.8%	64.3%	**Flaxseed**
11,152.2	10,478.0	12,025.9	12,266.6	9,234.6	2,957.6	8,423.3	8,869.8	10,884.7	10,604.5	11,012.8	14,305.5	15,183.2		6.1%	83.1%	
																PRINCE RUPERT
3,764.6	1,250.8	3,246.6	2,053.1	1,099.8	1,489.0	2,403.1	2,665.7	3,406.4	4,360.5	3,488.2	4,151.8	3,978.5		-4.2%	222.5%	**Wheat**
30.8	7.6	4.1	-	-	198.5	-	10.0	137.2	173.2	5.5	16.5	91.1		452.1%	n/a	**Durum**
392.4	1.7	109.5	2.0	-	-	376.3	-	527.3	92.5	891.7	56.5	132.0		133.6%	65900.0%	**Barley**
-	0.2	4.0	157.0	-	423.8	-	-	66.1	235.3	249.5	362.3	374.7	5%	3.4%	n/a	**Canola**
-	-	1.1	-	-	-	-	-	-	-	-	-	1.0		n/a	n/a	**Oats**
-	-	-	-	-	-	-	-	-	-	-	0.9	-		-100.0%	n/a	**Peas**
-	-	-	-	-	-	-	-	-	-	-	-	-		n/a	n/a	**Rye**
-	-	-	-	-	6.8	-	-	-	-	-	-	-		n/a	n/a	**Flaxseed**
4,187.8	1,260.3	3,365.3	2,212.1	1,099.8	2,118.1	2,779.4	2,675.7	4,137.0	4,861.5	4,634.9	4,588.0	4,577.3		-1.0%	271.0%	
																CHURCHILL
370.2	330.6	275.3	471.4	364.7	272.9	297.8	249.8	229.3	310.1	447.6	424.4	377.4		-11.1%	34.8%	**Wheat**
-	8.8	87.5	25.6	47.2	79.1	100.2	186.7	124.0	74.2	173.1	-	151.9		n/a	n/a	**Durum**
-	-	-	-	-	-	-	-	-	-	-	-	-		n/a	-100.0%	**Barley**
-	-	-	-	-	-	26.8	-	25.2	39.0	-	-	-		n/a	n/a	**Canola**
-	-	-	-	-	-	-	-	-	-	-	-	-		n/a	n/a	**Oats**
-	-	-	-	-	-	-	-	-	65.6	-	-	-		n/a	n/a	**Peas**
-	-	-	-	-	-	-	-	-	-	-	-	-		n/a	n/a	**Rye**
-	-	-	18.0	2.1	-	-	-	-	-	-	-	-		n/a	n/a	**Flaxseed**
370.2	339.4	362.8	515.0	414.0	352.0	424.8	436.5	378.5	488.9	620.7	424.4	529.3		24.7%	82.8%	
																THUNDER BAY
4,545.7	3,112.8	3,091.4	2,860.9	2,845.1	1,766.0	2,613.3	2,059.7	2,159.1	2,393.4	2,065.7	2,611.5	2,389.7		-8.5%	-73.5%	**Wheat**
2,123.5	2,186.2	1,874.6	2,033.6	1,928.1	1,707.1	2,069.9	1,974.0	2,262.2	2,074.0	1,411.5	2,066.0	1,526.6		-26.1%	-21.8%	**Durum**
369.5	290.9	260.2	134.8	225.8	174.2	177.9	104.9	-	55.5	79.7	128.3	81.2		-36.7%	-96.3%	**Barley**
484.7	641.7	408.7	457.0	281.6	337.7	566.6	602.3	849.7	723.8	720.1	774.8	708.5	10%	-8.6%	457.9%	**Canola**
121.1	169.4	205.8	221.1	122.2	11.3	146.4	157.5	12.1	227.9	191.3	195.7	170.5		-12.9%	-33.5%	**Oats**
-	-	-	-	-	-	-	-	-	175.9	89.7	68.6	7.3		-89.4%	n/a	**Peas**
0.1	-	-	-	0.3	-	-	-	-	-	-	-	-		n/a	-100.0%	**Rye**
427.0	424.9	319.3	427.0	429.8	408.9	475.6	297.0	332.1	504.4	379.4	399.7	238.2		-40.4%	-17.0%	**Flaxseed**
8,071.6	6,825.9	6,160.0	6,134.4	5,832.9	4,405.2	6,049.7	5,195.4	5,615.2	6,154.9	4,937.4	6,244.6	5,122.0		-18.0%	-63.9%	
																ALL PORTS
15,096.0	10,269.1	13,362.2	11,667.9	10,338.4	4,923.0	9,514.5	10,031.5	10,401.4	11,101.5	9,980.5	12,278.9	12,549.6		2.2%	-16.4%	**Wheat**
3,446.6	3,311.4	2,891.7	2,571.3	2,398.7	2,168.6	2,666.0	2,664.2	3,077.5	2,947.1	1,910.3	2,383.8	2,371.2		-0.5%	2.1%	**Durum**
1,777.7	743.7	1,297.0	1,408.4	725.0	242.9	1,367.3	956.2	2,064.2	897.5	2,092.1	866.5	1,120.6		29.3%	-73.3%	**Barley**
2,799.8	3,875.5	412.7	4,738.8	2,468.0	2,059.0	3,472.1	3,051.5	5,111.5	4,888.6	4,954.4	7,475.7	6,984.2		-6.6%	418.3%	**Canola**
131.6	180.3	209.9	233.2	132.9	12.4	156.5	157.5	14.0	279.4	242.8	210.4	180.5		-14.2%	-29.6%	**Oats**
-	-	-	-	-	-	-	-	-	1,475.2	1,634.9	1,917.9	1,675.2		-12.7%	n/a	**Peas**
25.0	1.1	59.9	1.0	0.5	-	-	-	-	-	-	2.9	36.3		1151.7%	-91.5%	**Rye**
505.1	522.5	3,680.6	507.5	517.8	427.0	500.8	316.5	346.8	520.5	390.8	426.4	494.2		15.9%	11.6%	**Flaxseed**
23,781.8	18,903.6	21,914.0	21,128.1	16,581.3	9,832.9	17,677.2	17,177.4	21,015.4	22,109.8	21,205.8	25,562.5	25,411.8		-0.6%	5.9%	

Annual Port Container Volume Throughput for All Grains

(thousands of tonnes) (1)

	CALENDAR YEA																
	1980	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Grain in Containers																	
Montreal - Tonnes																	
Vancouver - Tonnes																	
Total Tonnes																	
Montreal - TEUs																	
Vancouver - TEUs																	
Total TEUs																	
Bulk Grain - tonnes (000'																	
Montreal - Total Bulk																	
Vancouver - Total Bulk	8,291	10,319	10,127	11,125	9,548	10,762	11,866	13,016	9,123	11,599	11,904	14,640	13,042	11,914	13,052	11,210	11,305
Other Canadian Overseas Exports	13,367	12,006	17,375	17,875	20,417	12,121	12,373	17,576	22,463	6,785	13,221	15,233	19,658	14,591	15,986	19,838	13,506
Total Bulk Grain Exports	**21,658**	**22,325**	**27,502**	**29,000**	**29,965**	**22,883**	**24,239**	**30,592**	**31,586**	**18,384**	**25,125**	**29,873**	**32,700**	**26,505**	**29,038**	**31,048**	**24,811**
Total Containers - TEUs																	
Montreal	300,637	329,618	316,317	357,503	428,747	481,525	531,525	574,522	560,441	522,451	568,103	575,554	537,256	598,120	728,799	726,435	852,530
Vancouver	124,644	98,342	89,296	136,178	151,551	178,175	222,781	293,821	337,324	334,296	383,244	399,553	449,265	459,464	521,777	520,989	630,035
Total TEUs	**425,281**	**427,960**	**405,613**	**493,681**	**580,298**	**659,700**	**754,306**	**868,343**	**897,765**	**856,747**	**951,347**	**975,107**	**986,521**	**1,057,584**	**1,250,576**	**1,247,424**	**1,482,565**
Container % of total Grain Movement																	
Montreal																	
Vancouver																	
Grain Containers % of total Container Movement																	
Montreal																	
Vancouver																	

NOTES:

Source: Canadian Grain Commission www.grainscanada.gc.ca

(1) Shipments data varies slightly from that reported in "Monitoring the Canadian Grain Handling and Transportation System" reports due to revisions and absense of "other" grains, oilseeds and special crops.

Annual Port Container Volume Throughput for All Grains

S1-E

R														% VARIANCE	
1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**09/ 10**	
															Grain in Containers
			321,119	338,833	389,427	367,872	441,249	466,268	636,675	742,192	819,999	866,974	949,356	9.5%	Montreal - Tonnes
			1,012,123	1,038,257	884,447	899,639	1,117,082	1,285,899	1,434,635	2,182,079	1,773,206	2,790,155	2,642,061	-5.3%	Vancouver - Tonnes
			1,333,242	**1,377,090**	**1,273,874**	**1,267,511**	**1,558,331**	**1,752,167**	**2,071,310**	**2,924,271**	**2,593,205**	**3,657,129**	**3,591,417**	**-1.8%**	
			13,962	14,732	16,932	15,994	19,185	20,273	27,682	32,269	35,652	39,408	43,153	9.5%	Montreal - TEUs
			46,006	47,194	40,202	40,893	50,776	58,450	65,211	99,185	80,600	125,119	121,195	-3.1%	Vancouver - TEUs
			59,967	**61,925**	**57,134**	**56,887**	**69,961**	**78,722**	**92,892**	**131,455**	**116,252**	**164,527**	**164,348**	**-0.1%**	
															Bulk Grain
			2,128	1,878	1,379	1,199	1,271	1,072	652	837	1,471	1,688	1,415	-16.2%	Montreal - Total Bulk
11,152	10,478	12,026	12,922	11,694	6,798	8,073	10,604	11,887	13,837	13,542	12,770	15,115	16,278	7.7%	Vancouver - Total Bulk
17,319	17,526	11,697	15,104	16,598	16,240	6,140	13,431	10,945	14,456	19,433	17,308	13,606	13,181	-3.1%	Other Canadian Overseas Exports
28,471	**28,004**	**23,723**	**30,154**	**30,170**	**24,417**	**15,412**	**25,306**	**23,904**	**28,945**	**33,812**	**31,549**	**30,409**	**30,874**	**1.5%**	
															Total Containers - TEU's
870,368	932,701	993,486	1,014,148	989,427	1,054,603	1,108,837	1,226,296	1,254,560	1,288,910	1,268,510	1,362,080	1,247,690	1,331,351	6.7%	Montreal
742,932	865,009	1,102,092	1,230,020	1,197,142	1,558,786	1,791,568	1,850,313	1,843,472	1,977,819	2,495,522	2,492,107	2,152,462	2,514,309	16.8%	Vancouver
1,613,300	**1,797,710**	**2,095,578**	**2,244,168**	**2,186,569**	**2,613,389**	**2,900,405**	**3,076,609**	**3,098,032**	**3,266,729**	**3,764,032**	**3,854,187**	**3,400,152**	**3,845,660**	**13.1%**	
															Container % of total Grain Movement
			15.1%	18.0%	28.2%	30.7%	34.7%	43.5%	97.6%	88.7%	55.7%	51.4%	67.1%	30.6%	Montreal
			7.8%	8.9%	13.0%	11.1%	10.5%	10.8%	10.4%	16.1%	13.9%	18.5%	16.2%	-12.1%	Vancouver
			4.4%	**4.6%**	**5.2%**	**8.2%**	**6.2%**	**7.3%**	**7.2%**	**8.6%**	**8.2%**	**12.0%**	**11.6%**	**-3.3%**	
															Grain Containers % of total Container Movement
			1.4%	1.5%	1.6%	1.4%	1.6%	1.6%	2.1%	2.5%	2.6%	3.2%	3.2%	2.6%	Montreal
			3.7%	3.9%	2.6%	2.3%	2.7%	3.2%	3.3%	4.0%	3.2%	5.8%	4.8%	-17.1%	Vancouver
			2.7%	**2.8%**	**2.2%**	**2.0%**	**2.3%**	**2.5%**	**2.8%**	**3.5%**	**3.0%**	**4.8%**	**4.3%**	**-11.7%**	

Western Canada Exports by Grain by Global Region

(thousands of tonnes)

COMM / REGION	NOTES	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
		CROP YEAR															
ALL COMMODITIES																	
Asia		7,536.0	8,414.0	10,545.0	11,798.0	8,945.6	9,756.1	13,721.9	18,447.4	10,204.2	15,026.3	13,282.7	17,434.6	15,499.4	12,470.3	15,450.5	12,412.4
Western Hemisphere		2,758.0	3,130.0	3,350.0	3,383.0	2,896.2	3,613.0	4,401.8	4,169.9	2,902.4	2,619.9	3,925.0	7,177.5	5,937.9	11,700.9	8,878.7	7,827.7
Eastern Europe		6,613.0	9,213.0	8,650.0	7,346.0	6,755.1	6,341.3	8,016.0	4,816.6	2,688.6	4,415.2	9,269.8	5,793.2	2,072.1	7.1	97.3	0.1
Western Europe		4,481.0	5,287.0	5,535.0	5,578.0	2,903.8	2,981.7	3,331.4	2,619.8	1,833.8	1,781.7	1,275.6	1,289.4	1,562.3	2,672.7	3,292.5	2,327.6
Africa		934.0	1,456.0	888.0	1,857.0	1,375.9	1,535.9	1,118.0	1,531.3	749.9	1,277.6	2,113.2	995.1	1,379.1	2,159.5	3,238.0	2,175.4
Oceania		3.0	2.0	32.0	3.0	4.2	5.3	-	-	5.0	3.9	6.8	10.2	54.5	26.9	86.5	68.0
Other		-	-	-	-	1.9	5.9	2.9	1.3	-	-	-	-	-	1.0	5.0	-
		22,325.0	27,502.0	29,000.0	29,965.0	22,882.6	24,239.2	30,592.0	31,586.2	18,383.9	25,124.5	29,873.1	32,700.0	26,505.4	29,038.3	31,048.4	24,811.2
WHEAT																	
Asia		5,092.0	5,358.0	7,337.0	7,560.0	5,720.4	5,975.4	8,326.9	12,890.0	5,888.6	9,586.4	8,389.0	12,654.8	10,854.2	8,365.5	11,438.9	8,831.0
Western Hemisphere		2,015.0	2,271.0	2,652.0	2,605.0	2,168.5	2,645.1	3,161.7	2,520.1	1,008.8	1,162.4	2,170.2	4,573.3	3,915.2	6,473.1	3,908.6	3,354.0
Eastern Europe		3,476.0	4,160.0	5,756.0	6,206.0	5,486.2	5,181.4	5,046.0	3,548.5	1,942.8	2,402.1	6,403.3	3,674.8	1,816.7	-	97.3	-
Western Europe		2,711.0	3,139.0	2,214.0	1,448.0	1,124.7	1,207.3	1,334.0	1,185.4	946.0	779.7	682.7	673.2	716.0	512.8	435.0	364.0
Africa		198.0	734.0	310.0	916.0	744.9	915.4	524.6	724.2	328.7	467.8	1,074.9	477.8	547.1	675.5	540.5	196.0
Oceania		-	-	-	-	-	-	-	-	-	-	-	9.9	44.2	11.0	31.5	49.5
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		13,492.0	15,662.0	18,269.0	18,735.0	15,244.6	15,924.6	18,393.2	20,868.2	10,114.9	14,398.4	18,720.1	22,063.7	17,893.4	16,037.9	16,451.8	12,794.5
DURUM																	
Asia		48.0	32.0	77.0	60.0	112.8	18.5	98.5	146.6	133.6	242.5	177.9	271.2	636.3	179.9	137.1	275.0
Western Hemisphere		34.0	52.0	59.0	71.0	106.7	111.8	158.0	441.9	348.5	288.5	646.7	771.9	653.9	750.0	739.7	605.6
Eastern Europe		496.0	873.0	1,209.0	560.0	538.0	253.8	508.5	997.4	717.4	1,099.3	1,184.7	1,294.0	10.4	-	-	-
Western Europe		669.0	711.0	779.0	941.0	447.1	391.7	633.4	403.9	382.9	410.6	252.8	251.8	267.2	613.5	795.8	730.0
Africa		703.0	641.0	563.0	914.0	622.0	609.5	559.2	764.0	421.2	798.4	961.9	495.4	682.7	1,245.3	2,320.7	1,577.0
Oceania		-	-	-	-	-	-	-	-	-	-	-	-	10.1	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1,950.0	2,309.0	2,687.0	2,546.0	1,826.6	1,385.3	1,957.6	2,753.8	2,003.6	2,839.3	3,224.0	3,084.3	2,260.6	2,788.7	3,993.3	3,187.6
BARLEY																	
Asia		929.0	1,502.0	1,589.0	2,091.0	1,197.0	2,095.9	3,194.1	3,346.8	2,143.6	2,800.4	2,321.9	2,295.5	2,133.7	1,902.9	1,535.4	1,217.0
Western Hemisphere		229.0	364.0	302.0	305.0	196.9	160.8	262.5	439.0	288.9	240.1	476.0	673.5	270.0	1,847.1	1,388.8	1,074.0
Eastern Europe		1,573.0	2,780.0	1,526.0	538.0	409.9	705.8	2,433.0	207.9	-	913.8	1,681.4	371.7	229.0	-	-	-
Western Europe		505.0	1,036.0	1,913.0	2,333.0	800.3	629.4	643.9	346.6	184.6	275.6	7.2	-	-	-	16.3	-
Africa		-	40.0	-	-	-	-	-	33.2	-	-	50.1	-	71.1	22.7	20.0	24.0
Oceania		-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.2	18.0
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3,236.0	5,722.0	5,330.0	5,267.0	2,604.1	3,591.9	6,533.5	4,373.5	2,617.1	4,229.9	4,536.6	3,340.7	2,703.8	3,772.7	3,010.7	2,333.0
CANOLA																	
Asia		1,232.0	1,260.0	1,152.0	1,131.0	1,384.6	1,304.2	1,714.1	1,553.1	1,717.9	1,897.7	1,876.6	1,835.4	1,485.0	1,675.9	1,941.6	1,680.0
Western Hemisphere		21.0	22.0	-	44.0	43.0	113.8	319.6	195.8	228.1	72.7	1.7	31.9	117.5	686.7	755.6	811.7
Eastern Europe		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Western Europe		110.0	42.0	86.0	301.0	28.3	37.4	79.0	0.8	2.5	-	5.0	10.8	272.4	867.3	1,139.1	323.0
Africa		8.0	35.0	15.0	22.0	-	-	13.2	-	-	-	-	15.2	-	-	49.1	-
Oceania		1.0	-	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1,372.0	1,359.0	1,271.0	1,498.0	1,455.9	1,455.4	2,125.9	1,749.7	1,948.5	1,970.4	1,883.3	1,893.3	1,874.9	3,229.9	3,885.4	2,814.7
OATS																	
Asia		-	-	2.0	3.0	-	2.6	6.9	8.4	7.7	20.2	25.8	22.5	29.1	23.0	28.1	27.0
Western Hemisphere		3.0	28.0	96.0	118.0	17.9	40.3	234.9	252.3	667.3	496.6	171.1	233.3	505.6	1,016.5	1,297.3	1,087.7
Eastern Europe		-	16.0	-	-	-	-	-	-	27.4	-	-	-	-	-	-	-
Western Europe		42.0	4.0	6.0	-	-	-	13.0	17.5	-	-	-	-	6.3	-	-	-
Africa		-	-	-	-	-	-	-	-	-	11.1	-	-	-	-	-	-
Oceania		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		45.0	48.0	104.0	121.0	17.9	42.9	254.8	278.2	702.4	527.9	196.9	255.8	541.0	1,039.5	1,325.4	1,114.7
PEAS																	
Asia		-	-	-	-	-	-	-	-	-	-	28.9	43.2	30.5	81.4	181.6	231.5
Western Hemisphere		-	-	-	-	-	-	-	-	-	-	67.9	74.6	61.8	109.8	145.1	171.3
Eastern Europe		-	-	-	-	-	-	-	-	-	-	1.2	0.5	0.9	0.4	0.4	0.5
Western Europe		-	-	-	-	-	-	-	-	-	-	58.2	137.2	237.0	493.8	565.7	579.1
Africa		-	-	-	-	-	-	-	-	-	-	10.8	18.6	9.0	11.6	35.3	13.2
Oceania		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
Other		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	167.0	274.1	339.2	697.0	929.0	995.6

NOTES:

Source: "Canadian Grain Exports" and "Exports of Canadian Grain & Wheat Flour", Canadian Grain Commission www.grainscanada.gc.ca

Western Canada Exports by Grain by Global Region

S2-A

1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	% VARIANCE 08-09/09-10	% VARIANCE 99-00/09-10	COMM	REGION
																	ALL COMMODITIES
14,501.8	11,878.7	9,211.6	14,325.6	13,191.8	9,093.1	5,498.0	10,204.8	11,542.5	14,223.5	15,489.7	14,481.6	14,930.7	16,081.9	7.7%	113.4%		Asia
9,002.8	9,391.7	8,806.0	9,732.5	10,305.7	9,042.9	5,384.7	7,652.1	6,893.4	8,441.7	10,608.6	10,364.7	9,416.2	9,399.3	-0.2%	240.8%		Western Hemisphere
0.0	59.7	0.1	45.8	10.2	9.7	15.4	317.5	21.0	31.1	42.0	59.6	4.7	43.6	827.7%	-99.3%		Eastern Europe
1,999.1	2,359.8	2,419.4	2,646.9	2,876.2	2,738.7	2,274.6	4,688.2	3,381.9	3,919.5	3,850.0	3,350.4	2,847.2	3,009.6	5.7%	-32.8%		Western Europe
2,902.7	4,219.0	3,227.8	3,298.1	3,716.5	3,484.3	2,195.6	2,408.9	2,014.8	2,275.7	3,734.7	3,258.6	3,204.4	2,337.4	-27.1%	150.3%		Africa
64.6	95.4	58.4	105.3	69.5	48.1	43.4	34.5	50.6	53.5	87.0	33.7	6.0	2.6	-56.7%	-13.3%		Oceania
-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	n/a	n/a		Other
28,471.0	28,004.3	23,723.2	30,154.1	30,169.8	24,416.8	15,411.6	25,305.9	23,904.3	28,944.9	33,812.2	31,548.6	30,409.2	30,874.4	1.5%	38.3%		
																	WHEAT
9,107.0	8,077.8	4,404.3	8,357.5	6,060.2	5,137.1	2,439.0	5,335.6	6,537.7	5,657.9	6,710.4	5,887.2	7,534.7	7,129.0	-5.4%	40.0%		Asia
4,342.2	4,983.2	4,142.8	4,312.3	4,832.2	4,358.3	1,793.2	3,037.4	2,588.7	3,331.6	4,576.1	3,603.9	4,035.4	4,831.9	19.7%	139.8%		Western Hemisphere
-	59.5	-	-	-	-	7.0	284.0	-	-	-	-	-	-	n/a	-100.0%		Eastern Europe
687.8	816.0	1,103.7	981.1	864.0	964.0	788.3	1,599.5	827.5	757.5	935.2	936.5	922.2	747.5	-18.9%	-72.4%		Western Europe
863.4	1,459.8	950.0	848.5	1,272.0	1,301.2	428.4	1,236.2	852.1	816.7	1,785.8	1,403.5	1,562.0	1,208.4	-22.6%	510.3%		Africa
64.4	84.0	58.0	69.0	38.0	45.5	29.1	18.6	38.6	42.9	16.3	20.1	6.0	2.6	-56.7%	n/a		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
15,064.8	15,480.3	10,658.8	14,568.4	13,066.4	11,806.0	5,485.0	11,511.3	10,844.6	10,606.6	14,023.8	11,851.2	14,060.3	13,919.4	-1.0%	3.2%		
																	DURUM
871.9	195.2	235.9	206.2	317.4	279.8	205.4	256.6	258.9	832.5	606.0	257.5	271.5	668.8	146.3%	1293.3%		Asia
900.2	913.3	1,237.8	913.4	986.3	1,107.3	631.5	763.0	1,002.1	1,157.7	1,295.3	783.4	990.6	976.4	-1.4%	2771.8%		Western Hemisphere
-	-	-	-	-	-	-	19.9	-	-	-	-	-	-	n/a	-100.0%		Eastern Europe
544.9	704.2	473.4	323.0	168.0	489.3	497.9	1,381.5	998.0	1,130.4	1,075.2	691.2	910.1	835.3	-8.2%	24.9%		Western Europe
1,733.9	2,392.2	1,844.1	2,094.7	1,972.9	1,706.5	1,589.2	958.5	915.3	1,105.1	1,455.5	1,396.2	1,417.7	1,077.2	-24.0%	53.2%		Africa
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
4,050.9	4,204.9	3,791.2	3,537.3	3,444.6	3,582.8	2,924.0	3,379.5	3,174.3	4,225.7	4,432.0	3,128.3	3,589.9	3,557.7	-0.9%	82.4%		
																	BARLEY
2,432.1	1,357.9	474.1	1,025.8	1,234.1	473.6	79.8	1,196.6	844.3	1,961.2	720.3	1,999.0	597.7	792.9	32.7%	-14.7%		Asia
942.2	748.5	626.0	722.4	642.6	531.8	176.0	483.8	287.4	212.1	405.5	902.0	840.2	476.1	-43.3%	107.9%		Western Hemisphere
-	-	-	4.0	-	-	-	-	-	-	-	-	-	-	n/a	-100.0%		Eastern Europe
-	-	-	-	8.6	5.6	0.0	24.0	-	-	-	-	0.2	-	-100.0%	-100.0%		Western Europe
25.5	-	-	-	55.3	94.5	61.1	69.4	45.1	54.9	50.6	40.9	56.8	36.8	-35.2%	n/a		Africa
-	-	-	3.3	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
3,399.8	2,106.4	1,100.1	1,755.5	1,940.6	1,105.5	316.9	1,773.8	1,176.8	2,228.2	1,176.4	2,941.9	1,494.9	1,305.8	-12.6%	-59.6%		
																	CANOLA
1,736.0	1,939.5	3,084.7	3,033.9	3,764.2	1,803.0	1,748.0	2,361.4	2,037.7	3,518.1	3,850.5	3,509.0	5,981.0	5,174.6	-13.5%	320.0%		Asia
620.0	976.6	791.9	857.9	1,099.2	736.9	645.2	1,353.1	1,276.9	1,790.7	1,558.8	2,085.1	1,860.8	1,797.6	-3.4%	8460.0%		Western Hemisphere
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Eastern Europe
143.9	1.3	0.5	0.5	-	2.1	1.2	7.6	-	-	-	-	-	95.0	n/a	-13.6%		Western Europe
-	18.4	8.0	-	-	-	-	-	-	-	-	-	-	-	n/a	-100.0%		Africa
-	-	-	-	-	-	-	-	-	-	57.1	-	-	-	n/a	-100.0%		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
2,499.9	2,935.8	3,885.1	3,892.3	4,863.4	2,542.0	2,394.4	3,722.1	3,314.6	5,308.8	5,466.4	5,594.1	7,841.8	7,067.2	-9.9%	415.1%		
																	OATS
36.7	35.3	33.7	25.7	30.5	17.2	8.3	10.1	8.2	6.4	11.4	1.0	-	1.0	n/a	n/a		Asia
1,483.8	1,091.5	1,208.5	1,281.9	1,571.9	1,024.6	818.2	943.1	882.1	1,111.9	1,490.9	1,963.9	1,509.4	870.9	-42.3%	28930.0%		Western Hemisphere
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Eastern Europe
-	-	1.0	2.8	1.1	-	-	-	-	8.1	36.7	-	-	-	n/a	-100.0%		Western Europe
-	-	-	-	-	-	-	-	-	-	13.3	-	-	-	n/a	n/a		Africa
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
1,520.5	1,126.8	1,243.2	1,310.4	1,603.5	1,041.8	826.5	953.2	890.3	1,126.4	1,552.3	1,964.9	1,509.4	871.9	-42.2%	1837.6%		
																	PEAS
180.8	410.0	721.0	649.7	937.1	791.0	432.3	432.5	1,009.4	1,412.3	2,129.5	1,695.8	1,677.3	1,549.9	-7.6%	n/a		Asia
196.6	259.2	328.1	176.5	265.2	236.8	141.2	156.5	208.7	185.7	306.3	231.3	111.0	34.6	-68.8%	n/a		Western Hemisphere
0.1	-	0.7	2.2	3.6	3.2	3.9	5.6	3.5	11.7	16.3	10.0	-	-	n/a	n/a		Eastern Europe
471.7	438.5	588.8	530.7	940.2	312.0	13.1	641.3	563.7	874.7	315.2	190.9	87.7	1.5	-98.3%	n/a		Western Europe
7.0	7.7	24.1	28.5	29.2	37.8	32.6	31.0	56.7	80.0	209.9	70.4	-	-	n/a	n/a		Africa
-	-	41.7	29.3	14.0	0.0	4.8	5.1	3.7	2.0	4.0	3.3	-	-	n/a	n/a		Oceania
-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a		Other
856.2	1,115.4	1,704.4	1,416.9	2,189.3	1,380.8	627.9	1,271.9	1,845.6	2,566.4	2,981.2	2,201.7	1,876.0	1,586.0	-15.5%	n/a		

Processing and Disposition

Domestic Processing of Cereals and Oilseeds in Canada (thousands of tonnes)

	NOTES	PRODUCTION YEAR																
CANOLA CRUSHED		**1980-81**	**1981-82**	**1982-83**	**1983-84**	**1984-85**	**1985-86**	**1986-87**	**1987-88**	**1988-89**	**1989-90**	**1990-91**	**1991-92**	**1992-93**	**1993-94**	**1994-95**	**1995-96**	**1996-97**
Crushings		1,003.0	945.0	904.0	1,159.0	1,290.0	1,211.0	1,552.0	1,608.0	1,362.0	1,229.0	1,441.0	1,829.0	1,913.0	2,196.0	2,513.0	2,752.0	2,712.0
Oil Produeced		418.0	382.0	366.0	456.0	514.0	498.0	633.0	654.0	543.0	483.0	576.0	742.0	793.0	913.0	1,063.0	1,156.0	1,137.0
Meal Produced		574.0	551.0	521.0	688.0	768.0	691.0	909.0	959.0	822.0	761.0	875.0	1,097.0	1,165.0	1,340.0	1,565.0	1,724.0	1,649.0
WHEAT GROUND																		
Wheat Ground		2,506.0	2,369.0	2,322.0	2,459.0	2,412.0	2,466.0	2,469.0	2,442.0	2,487.0	2,383.0	2,405.0	2,367.0	2,400.0	2,635.0	2,771.0	2,719.0	2,824.0
Wheat Flour Produced		1,850.0	1,755.0	1,717.0	1,815.0	1,785.0	1,835.0	1,866.0	1,801.0	1,861.0	1,783.0	1,801.0	1,771.0	1,749.0	1,910.0	2,039.0	2,001.0	2,094.0
Millfeeds Produced		635.0	564.0	592.0	631.0	603.0	593.0	576.0	576.0	599.0	559.0	547.0	553.0	597.0	675.0	734.0	691.0	707.0
BARLEY MALTED																		
Malt Exports	**(2)**	285.0	280.0	318.0	269.0	177.0	202.0	185.0	228.0	223.0	267.0	287.0	344.0	309.0	381.0	497.0	490.0	569.0
Brewer & Distiller Use		394.0	392.0	394.0	390.0	380.0	374.0	363.0	365.0	373.0	364.0	363.0	350.0	350.0	350.0	375.0	432.0	375.0
TOTAL PROCESSED IN CANADA	**(1)**																	
Canola		1,003.0	945.0	904.0	1,159.0	1,290.0	1,211.0	1,552.0	1,608.0	1,362.0	1,229.0	1,441.0	1,829.0	1,913.0	2,196.0	2,513.0	2,752.0	2,712.0
Wheat		2,506.0	2,369.0	2,322.0	2,459.0	2,412.0	2,466.0	2,469.0	2,442.0	2,487.0	2,383.0	2,405.0	2,367.0	2,400.0	2,635.0	2,771.0	2,719.0	2,824.0
Barley		679.0	672.0	712.0	659.0	557.0	576.0	548.0	593.0	596.0	631.0	650.0	694.0	659.0	731.0	872.0	922.0	944.0
		3,509.0	3,314.0	3,226.0	3,618.0	3,702.0	3,677.0	4,021.0	4,050.0	3,849.0	3,612.0	3,846.0	4,196.0	4,313.0	4,831.0	5,284.0	5,471.0	5,536.0

NOTES:

Source: "Cereals and Oilseeds Review", Catalogue 22-007, Statistics Canada www.statcan.ca

(1) Total Process in Canada is canola seed crushed, wheat ground for flour and barley malted (malt exported and brewer & distiller use

(2) Malt Exports expressed as "Grain Equivalent"; unprocessed barley amount

Livestock on Farms Western Canada (thousands of head)

	PROVINCE	NOTES	PRODUCTION YEAR															
CATTLE			**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Manitoba			1,210.0	1,162.0	1,151.0	1,129.5	1,131.5	1,114.0	1,091.0	1,060.0	1,075.0	1,077.0	1,055.0	1,095.0	1,167.0	1,169.0	1,236.0	1,342.0	1,424.0
Saskatchewan			2,415.0	2,401.0	2,387.0	2,308.0	2,249.0	2,071.0	2,036.0	2,074.0	2,127.0	2,146.0	2,173.0	2,279.0	2,382.0	2,484.0	2,607.0	2,838.0	2,907.0
Alberta			4,155.0	4,153.0	4,080.0	3,965.0	3,975.0	3,840.0	3,746.0	3,924.0	4,149.0	4,375.0	4,490.0	4,671.0	4,811.0	4,941.0	5,316.0	5,608.0	5,736.0
British Columbia			750.0	787.0	765.0	736.0	750.0	724.0	678.0	677.0	689.0	720.0	716.0	748.0	773.5	766.0	803.0	846.0	867.0
Western Canada			8,530.0	8,503.0	8,383.0	8,138.5	8,105.5	7,749.0	7,551.0	7,735.0	8,040.0	8,318.0	8,434.0	8,793.0	9,133.5	9,360.0	9,962.0	10,634.0	10,934.0
HOGS																			
Manitoba			876.0	865.0	873.0	914.0	1,044.0	1,086.0	1,089.0	1,160.0	1,338.0	1,305.0	1,196.0	1,310.0	1,372.7	1,386.1	1,466.4	1,666.7	1,813.7
Saskatchewan			640.0	560.0	500.0	540.0	625.0	620.0	608.0	700.0	829.0	791.0	770.0	843.0	929.7	878.6	889.8	868.0	829.3
Alberta			1,251.0	1,185.0	1,180.0	1,255.0	1,470.0	1,475.0	1,508.0	1,670.0	1,807.0	1,809.0	1,689.0	1,760.0	1,913.1	1,848.6	1,778.6	2,031.1	1,875.9
British Columbia			216.0	255.0	247.0	254.0	256.0	249.0	214.3	227.1	254.3	265.5	245.5	238.5	211.2	197.7	209.7	184.8	175.5
Western Canada			2,983.0	2,865.0	2,800.0	2,963.0	3,395.0	3,430.0	3,419.3	3,757.1	4,228.3	4,170.5	3,900.5	4,151.5	4,426.7	4,311.0	4,344.5	4,750.6	4,694.4
SHEEP & LAMBS																			
Manitoba			30.5	35.5	33.5	34.7	30.8	27.0	22.6	25.5	27.0	31.0	34.4	35.0	34.9	34.0	33.0	34.5	37.5
Saskatchewan			73.0	76.0	74.0	66.0	62.1	56.5	53.0	58.7	64.3	72.0	82.5	92.0	85.0	82.0	79.0	78.2	86.0
Alberta			178.0	198.0	203.0	202.0	188.0	175.0	183.6	203.0	231.0	251.0	275.0	299.0	311.0	287.0	250.0	264.0	244.5
British Columbia			54.5	65.9	65.5	64.0	68.0	61.3	56.5	58.0	59.5	66.0	70.0	73.0	72.5	74.0	76.0	83.0	77.3
Western Canada			336.0	375.4	376.0	366.7	348.9	319.8	315.7	345.2	381.8	420.0	461.9	499.0	503.4	477.0	438.0	459.7	445.3
TOTAL LIVESTOCK IN WESTERN CANADA																			
Cattle			8,530.0	8,503.0	8,383.0	8,138.5	8,105.5	7,749.0	7,551.0	7,735.0	8,040.0	8,318.0	8,434.0	8,793.0	9,133.5	9,360.0	9,962.0	10,634.0	10,934.0
Hogs			2,983.0	2,865.0	2,800.0	2,963.0	3,395.0	3,430.0	3,419.3	3,757.1	4,228.3	4,170.5	3,900.5	4,151.5	4,426.7	4,311.0	4,344.5	4,750.6	4,694.4
Sheep & Lambs			336.0	375.4	376.0	366.7	348.9	319.8	315.7	345.2	381.8	420.0	461.9	499.0	503.4	477.0	438.0	459.7	445.3
			11,849.0	11,743.4	11,559.0	11,468.2	11,849.4	11,498.8	11,286.0	11,837.3	12,650.1	12,908.5	12,796.4	13,443.5	14,063.6	14,148.0	14,744.5	15,844.3	16,073.7

NOTES:

Source: "Livestock Statistics", Catologue 23-603, Statistics Canada www.statcan.ca

Estimated Farm Production of Livestock in Canada (thousands of head)

	LIVESTOCK	NOTES	PRODUCTION YEAR															
CANADA			**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Calves			675.8	708.2	770.4	723.6	746.9	672.1	608.1	533.9	533.0	555.7	522.8	515.5	460.7	382.2	349.3	373.7	381.6
Cattle			3,712.7	3,795.6	4,033.9	3,897.2	3,830.2	3,886.3	3,671.5	3,362.5	3,515.6	3,526.3	3,701.1	3,526.8	4,042.0	3,825.1	3,614.9	3,821.5	4,577.5
Hogs			14,215.0	13,837.0	13,763.0	14,161.6	15,232.5	15,604.4	14,900.9	15,162.2	16,303.7	16,445.0	15,574.0	15,387.8	16,139.0	16,040.0	16,386.6	17,515.6	17,956.2
Sheep & Lambs			291.7	347.4	386.6	405.2	429.3	399.5	393.0	389.7	409.0	446.5	465.2	518.9	577.5	540.4	524.1	513.9	539.0
			18,895.2	18,688.2	18,953.9	19,187.6	20,238.9	20,562.3	19,573.5	19,448.3	20,761.3	20,973.5	20,263.1	19,949.0	21,219.2	20,787.7	20,874.9	22,224.7	23,454.3

Source: "Livestock Statistics", Catologue 23-603, Statistics Canada www.statcan.ca

Processing and Disposition

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1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	% VARIANCE 2008-2009	% VARIANCE 1980-2009	
															CANOLA CRUSHED
3,239.0	3,062.0	2,983.0	3,013.0	2,293.0	2,225.0	3,390.0	3,031.0	3,423.0	3,579.0	4,144.0	4,280.0	4,788.0	11.9%	377.4%	
1,364.0	1,283.0	1,243.0	1,266.0	971.0	926.0	1,395.0	1,247.0	1,463.0	1,551.0	1,739.0	1,839.0	2,107.0	14.6%	404.1%	Crushings
2,004.0	1,940.0	1,858.0	1,870.0	1,427.0	1,390.0	2,120.0	1,904.0	2,025.0	2,108.0	2,495.0	2,487.0	2,683.0	7.9%	367.4%	Oil Produeced
															Meal Produced
															WHEAT GROUND
2,887.0	3,000.0	3,019.0	3,087.0	3,143.0	3,217.0	3,153.0	3,210.0	3,246.0	3,229.0	3,062.0	2,898.0	3,012.0	3.9%	20.2%	
2,208.0	2,237.0	2,280.0	2,373.0	2,402.0	2,455.0	2,410.0	2,430.0	2,435.0	2,459.0	2,308.0	2,203.0	2,298.0	4.3%	24.2%	Wheat Ground
723.0	780.0	732.0	742.0	798.0	818.0	781.0	766.0	809.0	796.0	748.0	707.0	724.0	2.4%	14.0%	Wheat Flour Produced
															Millfeeds Produced
															BARLEY MALTED
652.0	598.0	665.0	700.0	678.0	632.0	682.0	692.0	748.0	852.0	969.0	879.0	811.0	-7.7%	184.6%	
380.0	320.0	416.0	345.0	515.0	172.0	224.0	268.0	158.0	113.0	n/a	n/a	n/a	n/a	n/a	Malt Exports
															Brewer & Distiller Use
															TOTAL PROCESSED IN CANADA
3,239.0	3,062.0	2,983.0	3,013.0	2,293.0	2,225.0	3,390.0	3,031.0	3,423.0	3,579.0	4,144.0	4,280.0	4,788.0	11.9%	377.4%	
2,887.0	3,000.0	3,019.0	3,087.0	3,143.0	3,217.0	3,153.0	3,210.0	3,246.0	3,229.0	3,062.0	2,898.0	3,012.0	3.9%	20.2%	Canola
1,032.0	918.0	1,081.0	1,045.0	1,193.0	804.0	906.0	960.0	906.0	965.0	969.0	879.0	811.0	-7.7%	19.4%	Wheat
6,126.0	6,062.0	6,002.0	6,100.0	5,436.0	5,442.0	6,543.0	6,241.0	6,669.0	7,773.0	8,175.0	8,057.0	8,611.0	6.9%	145.4%	Barley

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1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% VARIANCE 2008-2009	% VARIANCE 1980-2009	PROVINCE
															CATTLE
1,449.0	1,447.0	1,400.0	1,400.0	1,425.0	1,470.0	1,590.0	1,730.0	1,735.0	1,680.0	1,540.0	1,515.0	1,430.0	-5.6%	18.2%	Manitoba
2,834.0	2,747.0	2,719.0	2,750.0	2,900.0	2,940.0	3,220.0	3,540.0	3,625.0	3,450.0	3,430.0	3,385.0	3,310.0	-2.2%	37.1%	Saskatchewan
5,848.0	6,045.0	6,056.0	6,279.0	6,500.0	6,387.0	6,100.0	6,400.0	6,700.0	6,300.0	6,410.0	6,010.0	5,830.0	-3.0%	40.3%	Alberta
835.0	790.0	800.0	805.0	815.0	836.5	885.0	950.0	915.0	820.0	805.0	750.0	705.0	-6.0%	-6.0%	British Columbia
10,966.0	11,029.0	10,975.0	11,234.0	11,640.0	11,633.5	11,795.0	12,620.0	12,975.0	12,250.0	12,185.0	11,660.0	11,275.0	-3.3%	32.2%	Western Canada
															HOGS
1,809.5	1,998.6	1,916.8	2,295.5	2,556.0	2,785.0	2,850.0	2,890.0	2,940.0	2,980.0	2,965.0	2,720.0	2,530.0	-7.0%	188.8%	Manitoba
862.0	930.8	917.8	1,028.4	1,129.1	1,230.4	1,250.0	1,350.0	1,395.0	1,389.0	1,320.0	971.0	810.0	-16.6%	26.6%	Saskatchewan
1,822.0	1,880.9	1,807.9	1,918.2	2,029.4	2,140.9	2,030.0	2,030.0	2,000.0	2,056.0	1,970.0	1,670.0	1,530.0	-8.4%	22.3%	Alberta
171.0	177.1	147.8	167.9	168.3	168.0	160.0	155.0	144.0	135.0	129.0	120.0	116.0	-3.3%	-46.3%	British Columbia
4,664.5	4,987.4	4,790.3	5,410.0	5,882.8	6,324.3	6,290.0	6,425.0	6,479.0	6,560.0	6,384.0	5,481.0	4,986.0	-9.0%	67.1%	Western Canada
															SHEEP & LAMBS
42.1	50.0	60.0	69.0	84.0	78.0	82.0	82.0	78.0	68.5	70.0	66.0	71.0	7.6%	132.8%	Manitoba
73.8	89.0	98.0	123.0	149.0	155.0	145.0	160.0	142.0	133.0	120.0	125.0	114.0	-8.8%	56.2%	Saskatchewan
225.7	225.0	240.0	270.0	287.0	288.0	255.0	248.0	239.0	228.0	205.0	185.0	177.0	-4.3%	-0.6%	Alberta
68.5	75.0	73.0	72.0	85.0	70.0	73.0	75.0	76.0	62.5	58.0	60.0	58.0	-3.3%	6.4%	British Columbia
410.1	439.0	471.0	534.0	605.0	591.0	555.0	565.0	535.0	492.0	453.0	436.0	420.0	-3.7%	25.0%	Western Canada
															TOTAL LIVESTOCK IN WESTERN CANADA
10,966.0	11,029.0	10,975.0	11,234.0	11,640.0	11,633.5	11,795.0	12,620.0	12,975.0	12,250.0	12,185.0	11,660.0	11,275.0	-3.3%	32.2%	Cattle
4,664.5	4,987.4	4,790.3	5,410.0	5,882.8	6,324.3	6,290.0	6,425.0	6,479.0	6,560.0	6,384.0	5,481.0	4,986.0	-9.0%	67.1%	Hogs
410.1	439.0	471.0	534.0	605.0	591.0	555.0	565.0	535.0	492.0	453.0	436.0	420.0	-3.7%	25.0%	Sheep & Lambs
16,040.6	16,455.4	16,236.3	17,178.0	18,127.8	18,548.8	18,640.0	19,610.0	19,989.0	19,302.0	19,022.0	17,577.0	16,681.0	-5.1%	40.8%	

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1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% VARIANCE 2008-2009	% VARIANCE 1980-2009	LIVESTOCK
															CANADA
412.9	349.7	323.2	308.6	313.9	403.6	343.7	366.3	354.4	328.9	395.2	430.2	327.5	-23.9%	-51.5%	Calves
4,554.8	4,631.8	4,363.4	4,174.8	4,489.3	5,012.0	3,681.5	4,064.7	4,583.2	4,636.8	4,783.2	4,967.6	4,389.4	-11.6%	18.2%	Cattle
18,561.8	21,055.8	23,050.0	24,036.0	26,043.9	27,866.3	29,882.7	31,380.0	30,534.1	30,565.4	31,299.1	31,060.9	28,182.0	-9.3%	98.3%	Hogs
519.7	529.4	593.4	660.7	758.4	833.2	798.3	775.1	813.3	755.7	725.8	700.0	709.0	1.3%	143.1%	Sheep & Lambs
24,049.2	26,566.7	28,330.0	29,180.1	31,605.5	34,115.1	34,706.2	36,586.1	36,285.0	36,286.8	37,203.3	37,158.7	33,607.9	-9.6%	77.9%	

Western Canada Primary and Process Grain Elevators - Summarized by Province (1)

PROVINCE	NOTES	CROP YEAR																
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
ONTARIO		AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1
Primary Facilities		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Capacity (000 tonnes)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Process Facilities		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Index		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Storage Capacity (000 tonnes)		80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
Index		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All Facilities		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Index		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Storage Capacity (000 tonnes)		80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
Index		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MANITOBA																		
Primary Facilities		405	373	361	364	309	305	292	288	284	272	264	258	256	254	251	236	220
Index		100.0	92.1	89.1	89.9	76.3	75.3	72.1	71.1	70.1	67.2	65.2	63.7	63.2	62.7	62.0	58.3	54.3
Storage Capacity (000 tonnes)		1,173.1	1,135.5	1,142.6	1,157.4	1,131.0	1,124.5	1,114.8	1,106.3	1,104.5	1,071.9	1,110.1	1,094.1	1,086.5	1,083.7	1,072.4	1,072.8	1,040.3
Index		100.0	96.8	97.4	98.7	96.4	95.9	95.0	94.3	94.1	91.4	94.6	93.3	92.6	92.4	91.4	91.4	88.7
Process Facilities		15	13	9	14	13	13	13	13	11	9	8	9	9	8	8	6	6
Index		100.0	86.7	60.0	93.3	86.7	86.7	86.7	86.7	73.3	60.0	53.3	60.0	60.0	53.3	53.3	40.0	40.0
Storage Capacity (000 tonnes)		219.5	187.9	177.7	200.0	191.6	190.9	152.9	152.9	142.1	133.2	109.4	112.6	112.6	111.7	111.7	94.5	94.5
Index		100.0	85.6	81.0	91.1	87.3	87.0	69.7	69.7	64.7	60.7	49.9	51.3	51.3	50.9	50.9	43.1	43.1
All Facilities		420	386	370	378	322	318	305	301	295	281	272	267	265	262	259	242	226
Index		100.0	91.9	88.1	90.0	76.7	75.7	72.6	71.7	70.2	66.9	64.8	63.6	63.1	62.4	61.7	57.6	53.8
Storage Capacity (000 tonnes)		1,392.6	1,323.3	1,320.3	1,357.4	1,322.6	1,315.4	1,267.7	1,259.1	1,246.6	1,205.1	1,219.5	1,206.7	1,199.1	1,195.4	1,184.1	1,167.3	1,134.8
Index		100.0	95.0	94.8	97.5	95.0	94.5	91.0	90.4	89.5	86.5	87.6	86.6	86.1	85.8	85.0	83.8	81.5
SASKATCHEWAN																		
Primary Facilities		1,805	1,704	1,578	1,521	1,045	1,031	994	925	898	857	834	807	779	759	727	709	656
Index		100.0	94.4	87.4	84.3	57.9	57.1	55.1	51.2	49.8	47.5	46.2	44.7	43.2	42.0	40.3	39.3	36.3
Storage Capacity (000 tonnes)		4,514.6	4,395.3	4,143.5	4,064.5	3,979.9	3,928.5	3,848.8	3,741.3	3,635.4	3,460.0	3,554.6	3,547.8	3,351.9	3,410.2	3,335.5	3,330.1	3,545.0
Index		100.0	97.4	91.8	90.0	88.2	87.0	85.3	82.9	80.5	76.6	78.7	78.6	74.2	75.5	73.9	73.8	78.5
Process Facilities		6	6	5	6	6	4	4	5	5	5	6	6	6	6	6	5	7
Index		100.0	100.0	83.3	100.0	100.0	66.7	66.7	83.3	83.3	83.3	100.0	100.0	100.0	100.0	100.0	83.3	116.7
Storage Capacity (000 tonnes)		92.9	91.2	84.5	85.5	81.7	63.1	63.1	92.4	99.6	99.6	101.1	105.0	116.7	134.7	135.0	139.7	150.6
Index		100.0	98.2	91.0	92.0	87.9	67.9	67.9	99.4	107.2	107.2	108.8	113.0	125.6	145.0	145.3	150.3	162.1
All Facilities		1,811	1,710	1,583	1,527	1,051	1,035	998	930	903	862	840	813	785	765	733	714	663
Index		100.0	94.4	87.4	84.3	58.0	57.2	55.1	51.4	49.9	47.6	46.4	44.9	43.3	42.2	40.5	39.4	36.6
Storage Capacity (000 tonnes)		4,607.5	4,486.6	4,228.0	4,150.0	4,061.6	3,991.5	3,911.9	3,833.6	3,735.0	3,559.6	3,655.6	3,652.7	3,468.5	3,544.9	3,470.4	3,469.7	3,695.7
Index		100.0	97.4	91.8	90.1	88.2	86.6	84.9	83.2	81.1	77.3	79.3	79.3	75.3	76.9	75.3	75.3	80.2
ALBERTA																		
Primary Facilities		1,097	1,040	979	899	598	589	560	545	523	478	469	463	452	442	421	388	317
Index		100.0	94.8	89.2	82.0	54.5	53.7	51.0	49.7	47.7	43.6	42.8	42.2	41.2	40.3	38.4	35.4	28.9
Storage Capacity (000 tonnes)		2,981.3	2,901.3	2,778.6	2,740.1	2,822.5	2,776.1	2,703.8	2,700.4	2,599.7	2,523.1	2,472.0	2,436.4	2,386.9	2,361.4	2,245.9	2,108.9	1,870.0
Index		100.0	97.3	93.2	91.9	94.7	93.1	90.7	90.6	87.2	84.6	82.9	81.7	80.1	79.2	75.3	70.7	62.7
Process Facilities		11	11	9	12	12	11	10	9	10	9	10	10	10	10	10	10	10
Index		100.0	100.0	81.8	109.1	109.1	100.0	90.9	81.8	90.9	81.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9
Storage Capacity (000 tonnes)		209.0	209.0	205.2	210.6	189.6	173.2	171.0	170.3	173.2	171.5	173.1	177.4	179.4	193.4	196.2	195.8	238.8
Index		100.0	100.0	98.1	100.7	90.7	82.8	81.8	81.5	82.9	82.0	82.8	84.8	85.8	92.5	93.9	93.7	114.3
All Facilities		1,108	1,051	988	911	610	600	570	554	533	487	479	473	462	452	431	398	327
Index		100.0	94.9	89.2	82.2	55.1	54.2	51.4	50.0	48.1	44.0	43.2	42.7	41.7	40.8	38.9	35.9	29.5
Storage Capacity (000 tonnes)		3,190.3	3,110.4	2,983.8	2,950.7	3,012.1	2,949.3	2,874.7	2,870.7	2,772.9	2,694.6	2,645.1	2,613.7	2,566.2	2,554.7	2,442.1	2,304.7	2,108.8
Index		100.0	97.5	93.5	92.5	94.4	92.4	90.1	90.0	86.9	84.5	82.9	81.9	80.4	80.1	76.5	72.2	66.1
BRITISH COLUMBIA																		
Primary Facilities		17	16	16	16	15	15	14	12	12	12	11	11	11	10	10	7	6
Index		100.0	94.1	94.1	94.1	88.2	88.2	82.4	70.6	70.6	70.6	64.7	64.7	64.7	58.8	58.8	41.2	35.3
Storage Capacity (000 tonnes)		79.7	74.7	73.1	73.5	72.3	65.7	72.9	64.5	64.5	68.7	68.7	68.7	68.7	65.9	65.9	51.9	45.3
Index		100.0	93.7	91.7	92.3	90.7	82.4	91.6	81.0	81.0	86.3	86.3	86.3	86.3	82.7	82.7	65.1	56.9
Process Facilities		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Capacity (000 tonnes)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Facilities		17	16	16	16	15	15	14	12	12	12	11	11	11	10	10	7	6
Index		100.0	94.1	94.1	94.1	88.2	88.2	82.4	70.6	70.6	70.6	64.7	64.7	64.7	58.8	58.8	41.2	35.3
Storage Capacity (000 tonnes)		79.7	74.7	73.1	73.5	72.3	65.7	72.9	64.5	64.5	68.7	68.7	68.7	68.7	65.9	65.9	51.9	45.3
Index		100.0	93.7	91.7	92.3	90.7	82.4	91.6	81.0	81.0	86.3	86.3	86.3	86.3	82.7	82.7	65.1	56.9
WESTERN CANADA																		
Primary Facilities		3,324	3,133	2,934	2,800	1,967	1,940	1,860	1,770	1,717	1,619	1,578	1,539	1,498	1,465	1,409	1,340	1,199
Index		100.0	94.3	88.3	84.2	59.2	58.4	56.0	53.2	51.7	48.7	47.5	46.3	45.1	44.1	42.4	40.3	36.1
Storage Capacity (000 tonnes)		8,748.6	8,506.8	8,137.7	8,035.4	8,005.7	7,894.7	7,740.4	7,612.5	7,404.1	7,123.7	7,205.4	7,146.9	6,894.0	6,921.1	6,719.6	6,563.6	6,500.6
Index		100.0	97.2	93.0	91.8	91.5	90.2	88.5	87.0	84.6	81.4	82.4	81.7	78.8	79.1	76.8	75.0	74.3
Process Facilities		33	31	24	33	32	29	28	28	27	24	25	26	26	25	25	22	24
Index		100.0	93.9	72.7	100.0	97.0	87.9	84.8	84.8	81.8	72.7	75.8	78.8	78.8	75.8	75.8	66.7	72.7
Storage Capacity (000 tonnes)		602.3	569.0	548.3	577.0	543.8	508.1	467.8	496.5	495.8	485.2	464.4	475.8	489.5	520.6	523.8	510.9	564.9
Index		100.0	94.5	91.0	95.8	90.3	84.4	77.7	82.4	82.3	80.6	77.1	79.0	81.3	86.4	87.0	84.8	93.8
All Facilities		3,357	3,164	2,958	2,833	1,999	1,969	1,888	1,798	1,744	1,643	1,603	1,565	1,524	1,490	1,434	1,362	1,223
Index		100.0	94.3	88.1	84.4	59.5	58.7	56.2	53.6	52.0	48.9	47.8	46.6	45.4	44.4	42.7	40.6	36.4
Storage Capacity (000 tonnes)		9,351.0	9,075.8	8,686.0	8,612.4	8,549.5	8,402.8	8,208.2	8,108.9	7,899.9	7,608.9	7,669.8	7,622.8	7,383.5	7,441.7	7,243.4	7,074.5	7,065.5
Index		100.0	97.1	92.9	92.1	91.4	89.9	87.8	86.7	84.5	81.4	82.0	81.5	79.0	79.6	77.5	75.7	75.6

NOTES:

SOURCE: "Grain Elevators in Canada", Canadian Grain Commission www.grainscanada.gc.ca

(1) The licensed elevator numbers and capacities vary slightly from that reported in "Monitoring the Canadian Grain Handling and Transportation System" reports due to timing differences. The data presented here is as of August 1st each crop ye

Western Canada Primary and Process Grain Elevators - Summarized by Province (1)

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1997-98 AUG 1	1998-99 AUG 1	1999-00 AUG 1	2000-01 AUG 1	2001-02 AUG 1	2002-03 AUG 1	2003-04 AUG 1	2004-05 AUG 1	2005-06 AUG 1	2006-07 AUG 1	2007-08 AUG 1	2008-09 AUG 1	2009-10 AUG 1	% VARIANCE 08-09/ 07-08	% VARIANCE 99-00/ 08-09	Prov	
																ONTARIO
-	-	-	-	-	-	-	-	-	-	-	-	-				**Primary Facilities**
-	-	-	-	-	-	-	-	-	-	-	-	-				Index
-	-	-	-	-	-	-	-	-	-	-	-	-				Storage Capacity (000 tonnes)
-	-	-	-	-	-	-	-	-	-	-	-	-				Index
1	1	1	1	1	1	1	1	1	1	1	1	1	0%	0%		**Process Facilities**
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	0%	0%		Storage Capacity (000 tonnes)
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
1	1	1	1	1	1	1	1	1	1	1	1	1	0%	0%		**All Facilities**
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	0%	0%		Storage Capacity (000 tonnes)
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
																MANITOBA
212	208	206	186	113	92	86	76	73	74	77	73	74	1%	-82%		**Primary Facilities**
52.3	100.0	99.0	89.4	54.3	44.2	41.3	36.5	35.1	35.6	37.0	35.1	35.6	1%	-64%		Index
1,016.6	1,168.5	1,277.8	1,341.2	1,054.2	966.8	933.7	944.8	924.7	925.2	978.9	989.4	1,017.2	3%	-13%		Storage Capacity (000 tonnes)
86.7	100.0	109.4	114.8	90.2	82.7	79.9	80.9	79.1	79.2	83.8	84.7	87.1	3%	-13%		Index
6	8	8	8	8	7	8	8	9	12	13	13	11	-15%	-27%		**Process Facilities**
40.0	100.0	100.0	100.0	100.0	87.5	100.0	100.0	112.5	150.0	162.5	162.5	137.5	-15%	38%		Index
94.5	98.0	97.4	97.4	96.9	86.1	90.2	90.3	94.3	117.3	117.6	118.2	116.6	-1%	-47%		Storage Capacity (000 tonnes)
43.1	100.0	99.3	99.3	98.8	87.8	92.0	92.1	96.2	119.7	120.0	120.6	118.9	-1%	19%		Index
218	216	214	194	121	99	94	84	82	86	90	86	85	-1%	-80%		**All Facilities**
51.9	100.0	99.1	89.8	56.0	45.8	43.5	38.9	38.0	39.8	41.7	39.8	39.4	-1%	-61%		Index
1,111.1	1,266.5	1,375.1	1,438.6	1,151.1	1,052.8	1,023.9	1,035.1	1,019.0	1,042.5	1,096.6	1,107.6	1,133.8	2%	-19%		Storage Capacity (000 tonnes)
79.8	100.0	108.6	113.6	90.9	83.1	80.8	81.7	80.5	82.3	86.6	87.5	89.5	2%	-10%		Index
																SASKATCHEWAN
637	519	455	389	236	202	199	194	184	173	175	169	167	-1%	-91%		**Primary Facilities**
35.3	100.0	87.7	75.0	45.5	38.9	38.3	37.4	35.5	33.3	33.7	32.6	32.2	-1%	-68%		Index
3,737.2	3,501.2	3,569.9	3,340.0	2,898.8	2,796.6	2,779.2	2,842.2	2,829.9	2,766.3	2,799.1	2,849.0	2,942.4	3%	-35%		Storage Capacity (000 tonnes)
82.8	100.0	102.0	95.4	82.8	79.9	79.4	81.2	80.8	79.0	79.9	81.4	84.0	3%	-16%		Index
7	8	9	9	9	8	9	9	9	12	13	16	18	13%	200%		**Process Facilities**
116.7	100.0	112.5	112.5	112.5	100.0	112.5	112.5	112.5	150.0	162.5	200.0	225.0	13%	125%		Index
184.1	193.6	195.6	195.6	195.6	203.6	205.6	205.6	207.1	212.0	212.1	223.1	308.9	38%	232%		Storage Capacity (000 tonnes)
198.1	100.0	101.0	101.0	101.0	105.2	106.2	106.2	107.0	109.5	109.5	115.2	159.5	38%	60%		Index
644	527	464	398	245	210	208	203	193	185	188	185	185	0%	-90%		**All Facilities**
35.6	100.0	88.0	75.5	46.5	39.8	39.5	38.5	36.6	35.1	35.7	35.1	35.1	0%	-65%		Index
3,921.3	3,694.8	3,765.5	3,535.6	3,094.4	3,000.2	2,984.8	3,047.9	3,037.0	2,978.3	3,011.1	3,072.0	3,251.2	6%	-29%		Storage Capacity (000 tonnes)
85.1	100.0	101.9	95.7	83.7	81.2	80.8	82.5	82.2	80.6	81.5	83.1	88.0	6%	-12%		Index
																ALBERTA
298	242	221	171	115	88	83	79	82	81	81	77	77	0%	-93%		**Primary Facilities**
27.2	100.0	91.3	70.7	47.5	36.4	34.3	32.6	33.9	33.5	33.5	31.8	31.8	0%	-68%		Index
1,805.9	1,685.3	1,926.4	1,788.0	1,483.6	1,285.4	1,270.6	1,352.6	1,404.7	1,381.3	1,444.8	1,483.8	1,551.4	5%	-48%		Storage Capacity (000 tonnes)
60.6	100.0	114.3	106.1	88.0	76.3	75.4	80.3	83.4	82.0	85.7	88.0	92.1	5%	-8%		Index
9	10	10	10	10	10	10	10	10	11	11	11	11	0%	0%		**Process Facilities**
81.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	110.0	110.0	0%	10%		Index
242.9	250.6	255.6	253.6	253.6	261.1	261.4	262.2	262.2	266.4	260.3	260.3	260.9	0%	25%		Storage Capacity (000 tonnes)
116.2	100.0	102.0	101.2	101.2	104.2	104.3	104.6	104.6	106.3	103.8	103.8	104.1	0%	4%		Index
307	252	231	181	125	98	93	89	92	92	92	88	88	0%	-92%		**All Facilities**
27.7	100.0	91.7	71.8	49.6	38.9	36.9	35.3	36.5	36.5	36.5	34.9	34.9	0%	-65%		Index
2,048.8	1,935.9	2,182.0	2,041.6	1,737.2	1,546.5	1,532.0	1,614.8	1,666.9	1,647.7	1,705.1	1,744.0	1,812.4	4%	-43%		Storage Capacity (000 tonnes)
64.2	100.0	112.7	105.5	89.7	79.9	79.1	83.4	86.1	85.1	88.1	90.1	93.6	4%	-6%		Index
																BRITISH COLUMBIA
6	7	6	6	7	7	7	7	5	6	6	5	5	0%	-71%		**Primary Facilities**
35.3	100.0	85.7	85.7	100.0	100.0	100.0	100.0	71.4	85.7	85.7	71.4	71.4	0%	-29%		Index
45.0	46.0	37.8	37.8	59.2	64.4	64.4	64.4	64.4	56.4	56.4	51.9	51.8	0%	-35%		Storage Capacity (000 tonnes)
56.5	100.0	82.2	82.2	128.6	140.0	140.0	140.0	140.0	122.4	122.4	112.8	112.6	0%	13%		Index
1	1	1	1	1	1	1	1	1	1	1	1	1	0%	0%		**Process Facilities**
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
1.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0%	92%		Storage Capacity (000 tonnes)
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%		Index
7	8	7	7	8	8	8	8	6	7	7	6	6	0%	-65%		**All Facilities**
41.2	100.0	87.5	87.5	100.0	100.0	100.0	100.0	75.0	87.5	87.5	75.0	75.0	0%	-25%		Index
46.3	48.5	40.3	40.3	61.7	66.9	66.9	66.9	66.9	58.9	58.9	54.4	54.3	0%	-32%		Storage Capacity (000 tonnes)
58.1	100.0	83.1	83.1	127.1	137.9	137.9	137.9	137.9	121.3	121.3	112.2	112.0	0%	12%		
																WESTERN CANADA
1,153	976	888	752	471	389	375	356	344	334	339	324	323	0%	-90%		**Primary Facilities**
34.7	100.0	91.0	77.0	48.3	39.9	38.4	36.5	35.2	34.2	34.7	33.2	33.1	0%	-67%		Index
6,604.7	6,400.9	6,811.9	6,507.1	5,495.8	5,113.1	5,047.9	5,204.0	5,223.7	5,129.1	5,279.2	5,374.0	5,562.9	4%	-36%		Storage Capacity (000 tonnes)
75.5	100.0	106.4	101.7	85.9	79.9	78.9	81.3	81.6	80.1	82.5	84.0	86.9	4%	-13%		Index
24	28	29	29	29	27	29	29	30	37	39	42	42	0%	27%		**Process Facilities**
72.7	100.0	103.6	103.6	103.6	96.4	103.6	103.6	107.1	132.1	139.3	150.0	150.0	0%	50%		Index
603.7	625.7	632.0	630.0	629.5	634.2	640.7	641.5	647.0	679.0	673.3	684.9	769.7	12%	28%		Storage Capacity (000 tonnes)
100.2	100.0	101.0	100.7	100.6	101.4	102.4	102.5	103.4	108.5	107.6	109.5	123.0	12%	23%		Index
1,177	1,004	917	781	500	416	404	385	374	371	378	366	365	0%	-89%		**All Facilities**
35.1	100.0	91.3	77.8	49.8	41.4	40.2	38.3	37.3	37.0	37.6	36.5	36.4	0%	-64%		Index
7,208.4	7,026.6	7,443.9	7,137.0	6,125.2	5,747.3	5,688.6	5,845.6	5,870.8	5,808.2	5,952.5	6,059.0	6,332.6	5%	-32%		Storage Capacity (000 tonnes)
77.1	100.0	105.9	101.6	87.2	81.8	81.0	83.2	83.6	82.7	84.7	86.2	90.1	5%	-10%		Index

Western Canadian Terminal Elevators - Summarized by Port (1)

PORT	CROP YEAR															
	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
VANCOUVER	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1	AUG 1
Facilities	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Storage Capacity (000 tonnes)	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PRINCE RUPERT																
Facilities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Storage Capacity (000 tonnes)	63.0	63.0	63.0	63.0	63.0	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5
Index	100.0	100.0	100.0	100.0	100.0	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5
CHURCHILL																
Facilities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Storage Capacity (000 tonnes)	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
THUNDER BAY																
Facilities	12	12	12	12	12	12	12	12	11	11	11	11	10	9	9	9
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.7	91.7	91.7	91.7	83.3	75.0	75.0	75.0
Storage Capacity (000 tonnes)	2,083.6	2,083.6	2,083.6	2,083.5	2,076.7	2,076.7	2,076.7	2,076.7	2,006.5	2,006.5	2,006.0	2,006.0	1,886.3	1,717.2	1,717.2	1,717.2
Index	100.0	100.0	100.0	100.0	99.7	99.7	99.7	99.7	96.3	96.3	96.3	96.3	90.5	82.4	82.4	82.4
WESTERN CANADA																
Facilities	19	19	19	19	19	19	19	19	18	18	18	18	17	16	16	16
Index	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	94.7	94.7	94.7	89.5	84.2	84.2	84.2
Storage Capacity (000 tonnes)	3,215.9	3,215.9	3,215.9	3,215.8	3,209.0	3,355.5	3,355.5	3,355.5	3,285.4	3,285.4	3,284.8	3,284.8	3,165.1	2,996.0	2,996.0	2,996.0
Index	100.0	100.0	100.0	100.0	99.8	104.3	104.3	104.3	102.2	102.2	102.1	102.1	98.4	93.2	93.2	93.2

NOTES:

SOURCE: "Grain Elevators in Canada", Canadian Grain Commission www.grainscanada.gc.ca

(1) The licensed elevator numbers and capacities vary slightly from that reported in "Monitoring the Canadian Grain Handling and Transportation System" reports due to timing differences. The data presented here is as of August 1s

Western Canadian Terminal Elevators - Summarized by Port (1)

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1996-97 AUG 1	1997-98 AUG 1	1998-99 AUG 1	1999-00 AUG 1	2000-01 AUG 1	2001-02 AUG 1	2002-03 AUG 1	2003-04 AUG 1	2004-05 AUG 1	2005-06 AUG 1	2006-07 AUG 1	2007-08 AUG 1	2008-09 AUG 1	2009-10 AUG 1	% VARIANCE 09-10/ 08-09	% VARIANCE 99-00/ 09-10	PORT
																VANCOUVER
5	5	5	5	6	6	6	6	6	6	6	6	6	6	0%	20%	Facilities
100.0	100.0	100.0	100.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	0%	20%	Index
929.3	929.3	929.3	929.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	0%	3%	Storage Capacity (000 tonnes)
100.0	100.0	100.0	100.0	102.7	102.7	102.7	102.7	102.7	102.7	102.7	102.7	102.7	102.7	0%	3%	Index
																PRINCE RUPERT
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0%	0%	Facilities
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%	Index
209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	209.5	0%	233%	Storage Capacity (000 tonnes)
332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	0%	233%	Index
																CHURCHILL
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0%	0%	Facilities
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%	Index
140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	0%	0%	Storage Capacity (000 tonnes)
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0%	0%	Index
																THUNDER BAY
7	7	7	7	8	8	9	8	8	8	8	8	7	7	0%	-42%	Facilities
58.3	58.3	58.3	58.3	66.7	66.7	75.0	66.7	66.7	66.7	66.7	66.7	58.3	58.3	0%	-42%	Index
1,278.5	1,278.5	1,278.5	127.5	1,399.8	1,399.8	1,429.8	1,338.8	1,338.8	1,338.8	1,338.8	1,338.8	1,171.8	1,171.8	0%	-44%	Storage Capacity (000 tonnes)
61.4	61.4	61.4	6.1	67.2	67.2	68.6	64.3	64.3	64.3	64.3	64.3	56.2	56.2	0%	-44%	Index
																WESTERN CANADA
14	14	14	14	16	16	17	16	16	16	16	16	15	15	0%	-21%	Facilities
73.7	73.7	73.7	73.7	84.2	84.2	89.5	84.2	84.2	84.2	84.2	84.2	78.9	78.9	0%	-21%	Index
2,557.4	2,557.4	2,557.4	1,406.4	2,703.6	2,703.6	2,733.6	2,642.6	2,642.6	2,642.6	2,642.6	2,642.6	2,475.6	2,475.6	0%	-23%	Storage Capacity (000 tonnes)
79.5	79.5	79.5	43.7	84.1	84.1	85.0	82.2	82.2	82.2	82.2	82.2	77.0	77.0	0%	-23%	Index

st each crop year

Western Canadian Farm Cash Receipts ('000 dollars)

COMMODITY		NOTES	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	CALEN 1994
WHEAT	Cash Receipts	**(1)**	2,710,303	3,645,327	3,526,285	3,611,111	3,664,781	2,618,399	2,410,746	2,181,151	2,327,492	2,092,829	2,534,537	2,598,356	2,166,739	2,288,585	2,832,791
	Index		100.0	134.5	130.1	133.2	135.2	96.6	88.9	80.5	85.9	77.2	93.5	95.9	79.9	84.4	104.5
DURUM	Cash Receipts	**(2)**	385,695	622,326	431,724	530,558	405,562	298,222	281,043	315,851	427,755	490,926	371,334	344,806	349,743	365,268	707,610
	Index		100.0	161.4	111.9	137.6	105.2	77.3	72.9	81.9	110.9	127.3	96.3	89.4	90.7	94.7	183.5
CANOLA	Cash Receipts		673,559	597,486	607,490	736,526	940,889	899,633	662,559	716,964	984,859	943,011	782,142	820,619	991,514	1,185,526	2,096,475
	Index		100.0	88.7	90.2	109.3	139.7	133.6	98.4	106.4	146.2	140.0	116.1	121.8	147.2	176.0	311.3
DRY PEAS	Cash Receipts		12,434	22,702	27,748	21,319	24,633	29,746	38,436	51,117	48,316	39,489	32,727	46,838	71,074	99,057	192,485
	Index		100.0	182.6	223.2	171.5	198.1	239.2	309.1	411.1	388.6	317.6	263.2	376.7	571.6	796.7	1548.1
LENTILS	Cash Receipts	**(3)**	-	-	-	-	-	-	65,909	45,879	40,784	35,108	57,094	78,297	78,219	72,011	97,808
	Index		100.0	n/a	n/a	n/a	n/a	n/a	100.0	69.6	61.9	53.3	86.6	118.8	118.7	109.3	148.4

NOTES:

Source: Statistics Canada, *Farm Cash Receipts*

(1) Wheat excluding durum, and Wheat excluding dumum, CWB payments
(2) Durum wheat, and Durum wheat, CWB payments
(3) Index: 1986 = 100

Western Canadian Farm Cash Receipts ('000 dollars)

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IDAR YEAR															COMMODITY
1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	
3,010,179	3,387,431	3,126,847	2,300,937	2,345,708	2,294,931	2,547,952	2,360,700	1,536,224	2,236,667	1,724,479	1,940,960	2,970,964	4,018,430	3,749,510	Cash Receipts **WHEAT**
111.1	125.0	115.4	84.9	86.5	84.7	94.0	87.1	56.7	82.5	63.6	71.6	109.6	148.3	138.3	Index
982,539	917,804	908,171	871,823	741,613	643,480	792,349	792,737	659,412	587,142	560,420	571,322	985,295	1,422,460	1,061,330	Cash Receipts **DURUM**
254.7	238.0	235.5	226.0	192.3	166.8	205.4	205.5	171.0	152.2	145.3	148.1	255.5	368.8	275.2	Index
1,885,292	1,955,974	2,108,281	2,641,077	1,757,419	1,546,588	1,712,290	1,759,274	1,872,053	2,132,770	1,816,593	2,497,228	3,436,173	4,885,910	5,014,940	Cash Receipts **CANOLA**
279.9	290.4	313.0	392.1	260.9	229.6	254.2	261.2	277.9	316.6	269.7	370.8	510.2	725.4	744.5	Index
217,900	219,825	239,337	275,313	262,147	269,771	304,475	252,979	253,495	342,673	265,299	366,520	562,784	631,993	650,800	Cash Receipts **DRY PEAS**
1752.5	1767.9	1924.9	2214.2	2108.3	2169.6	2448.7	2034.6	2038.7	2755.9	2133.7	2947.7	4526.2	5082.8	5234.0	Index
134,667	135,279	97,570	118,626	195,960	244,542	187,181	132,095	144,593	204,998	226,677	182,347	343,955	587,540	868,180	Cash Receipts **LENTILS**
204.3	205.3	148.0	180.0	297.3	371.0	284.0	200.4	219.4	311.0	343.9	276.7	521.9	891.4	1317.2	Index

Primary Elevation Tariffs

Average Handling Charges Based on Posted Rates at Country Delivery Points for Major Grains
Receiving, Elevating and Loading Out (1) (2) (3)
- Index - Aug. 1, 1980 = 100 (Aug. 1, 1989 for Peas)

PROV	COMMODITY	NOTES	CROP YEAR															
			1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
			Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1
MANITOBA			$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne
	Wheat (incl.Durum)		6.01	6.63	6.93	7.27	7.28	7.60	7.40	7.26	7.95	8.26	8.88	9.31	9.29	9.50	9.44	9.57	10.05
	Index		100.0	110.3	115.3	121.0	121.1	126.5	123.1	120.8	132.3	137.4	147.8	154.9	154.6	158.1	157.1	159.2	167.2
	Barley		7.35	8.13	8.55	8.98	9.01	9.09	8.87	8.76	9.75	10.25	11.13	11.44	11.59	11.71	11.55	11.89	12.57
	Index		100.0	110.6	116.3	122.2	122.6	123.7	120.7	119.2	132.7	139.5	151.4	155.6	157.7	159.3	157.1	161.8	171.0
	Designated Barley		7.35	8.13	8.55	8.98	9.01	9.09	8.87	8.76	9.75	10.25	11.13	11.44	11.59	11.71	11.55	11.89	12.57
	Index		100.0	110.6	116.3	122.2	122.6	123.7	120.7	119.2	132.7	139.5	151.4	155.6	157.7	159.3	157.1	161.8	171.0
	Canola		7.50	9.81	10.24	10.63	10.60	10.99	10.74	10.45	10.64	11.34	11.40	11.74	11.83	12.04	12.14	11.39	12.49
	Index		100.0	130.8	136.5	141.7	141.3	146.5	143.2	139.3	141.9	151.2	152.0	156.5	157.7	160.5	161.9	151.9	166.5
	Oats		9.04	10.28	10.77	11.26	11.29	11.33	10.92	10.80	11.99	12.03	12.56	13.17	13.23	13.41	13.30	13.56	14.26
	Index		100.0	113.7	119.1	124.6	124.9	125.3	120.8	119.5	132.6	133.1	138.9	145.7	146.3	148.3	147.1	150.0	157.7
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.63	10.72	11.10	11.40	11.60	11.31	10.93	12.21
	Index											100.0	100.8	104.4	107.2	109.1	106.4	102.8	114.9
	Rye		6.28	6.95	7.22	7.59	7.56	8.12	7.90	7.78	8.24	8.74	9.20	9.56	9.64	9.80	9.77	9.81	11.13
	Index		100.0	110.7	115.0	120.9	120.4	129.3	125.8	123.9	131.2	139.2	146.5	152.2	153.5	156.1	155.6	156.2	177.2
	Flaxseed		7.51	9.71	10.13	10.52	10.47	10.75	10.73	10.34	10.55	11.20	11.31	11.54	11.64	11.89	11.97	11.31	12.30
	Index		100.0	129.3	134.9	140.1	139.4	143.1	142.9	137.7	140.5	149.1	150.6	153.7	155.0	158.3	159.4	150.6	163.8
	Average		7.29	8.52	8.91	9.32	9.32	9.57	9.35	9.16	9.84	10.34	10.79	11.16	11.28	11.46	11.38	11.29	12.20
	Index		100.0	116.8	122.2	127.8	127.8	131.2	128.2	125.7	134.9	141.8	148.0	153.1	154.7	157.1	156.1	154.9	167.3
SASKATCHEWAN																			
	Wheat (incl.Durum)		5.32	5.87	6.33	6.56	6.65	6.84	6.50	6.32	6.93	7.17	7.68	8.06	8.23	7.95	7.77	7.88	8.35
	Index		100.0	110.3	119.0	123.3	125.0	128.6	122.2	118.8	130.3	134.8	144.4	151.5	154.7	149.4	146.1	148.1	157.0
	Barley		6.48	7.08	7.69	7.98	8.17	8.32	7.78	7.64	8.38	8.76	9.60	9.73	9.97	9.42	9.03	9.01	9.44
	Index		100.0	109.3	118.7	123.1	126.1	128.4	120.1	117.9	129.3	135.2	148.1	150.2	153.9	145.4	139.4	139.0	145.7
	Designated Barley		6.48	7.08	7.69	7.98	8.17	8.32	7.78	7.64	8.38	8.76	9.60	9.73	9.97	9.42	9.03	9.01	9.44
	Index		100.0	109.3	118.7	123.1	126.1	128.4	120.1	117.9	129.3	135.2	148.1	150.2	153.9	145.4	139.4	139.0	145.7
	Canola		7.44	9.02	9.75	10.13	10.30	10.84	9.95	9.59	10.40	10.97	11.42	11.98	11.81	11.51	11.64	11.49	12.23
	Index		100.0	121.2	131.0	136.2	138.4	145.7	133.7	128.9	139.8	147.4	153.5	161.0	158.7	154.7	156.5	154.4	164.4
	Oats		7.85	8.63	9.94	9.86	10.17	10.52	9.46	9.35	10.33	10.82	11.13	11.67	11.94	11.61	11.91	12.15	12.71
	Index		100.0	109.9	126.6	125.6	129.6	134.0	120.5	119.1	131.6	137.8	141.8	148.7	152.1	147.9	151.7	154.8	161.9
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.64	11.05	11.25	11.85	11.47	12.01	11.99	12.78
	Index											100.0	103.9	105.7	111.4	107.8	112.9	112.7	120.1
	Rye		5.77	6.24	6.68	6.96	7.12	7.51	7.11	6.91	7.43	7.87	8.17	8.64	8.83	8.74	8.92	8.99	9.97
	Index		100.0	108.1	115.8	120.6	123.4	130.2	123.2	119.8	128.8	136.4	141.6	149.7	153.0	151.5	154.6	155.8	172.8
	Flaxseed		7.44	8.97	9.68	10.05	10.24	10.72	9.96	9.49	10.21	10.79	11.26	11.83	11.69	11.28	11.47	11.33	12.00
	Index		100.0	120.6	130.1	135.1	137.6	144.1	133.9	127.6	137.2	145.0	151.3	159.0	157.1	151.6	154.2	152.3	161.3
	Average		6.68	7.56	8.25	8.50	8.69	9.01	8.36	8.13	8.87	9.47	9.99	10.36	10.54	10.18	10.22	10.23	10.87
	Index		100.0	113.1	123.5	127.2	130.0	134.8	125.1	121.7	132.7	141.7	149.5	155.0	157.7	152.3	153.0	153.1	162.6
ALBERTA & BRITISH COLUMBIA																			
	Wheat (incl.Durum)		5.49	5.93	6.22	6.41	6.25	6.33	6.34	6.18	7.08	7.54	8.45	8.70	8.68	8.63	8.59	8.75	9.28
	Index		100.0	108.0	113.3	116.8	113.8	115.3	115.5	112.6	129.0	137.3	153.9	158.5	158.1	157.2	156.5	159.4	169.0
	Barley		6.81	7.30	7.69	7.92	7.73	7.83	7.75	7.66	8.57	9.11	10.23	10.72	10.68	10.55	10.21	10.20	10.75
	Index		100.0	107.2	112.9	116.3	113.5	115.0	113.8	112.5	125.8	133.8	150.2	157.4	156.8	154.9	149.9	149.8	157.9
	Designated Barley		6.81	7.30	7.69	7.92	7.73	7.83	7.75	7.66	8.57	9.11	10.23	10.72	10.68	10.55	10.21	10.20	10.75
	Index		100.0	107.2	112.9	116.3	113.5	115.0	113.8	112.5	125.8	133.8	150.2	157.4	156.8	154.9	149.9	149.8	157.9
	Canola		7.22	9.31	9.62	9.96	9.41	10.30	9.93	9.30	9.99	10.19	11.67	11.82	12.05	12.19	12.37	11.59	12.80
	Index		100.0	128.9	133.2	138.0	130.3	142.7	137.5	128.8	138.4	141.1	161.6	163.7	166.9	168.8	171.3	160.5	177.3
	Oats		8.45	9.01	9.49	9.73	9.57	9.50	9.21	9.11	9.34	9.60	11.02	11.56	11.56	11.76	11.78	11.28	12.12
	Index		100.0	106.6	112.3	115.1	113.3	112.4	109.0	107.8	110.5	113.6	130.4	136.8	136.8	139.2	139.4	133.5	143.4
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.25	11.79	12.36	13.00	13.21	13.18	11.80	13.56
	Index											100.0	115.0	120.6	126.8	128.9	128.6	115.1	132.3
	Rye		6.05	6.43	6.70	6.93	6.75	6.92	6.87	6.70	7.38	7.46	8.37	8.45	8.30	8.44	8.45	9.04	10.37
	Index		100.0	106.3	110.7	114.5	111.6	114.4	113.6	110.7	122.0	123.3	138.3	139.7	137.2	139.5	139.7	149.4	171.4
	Flaxseed		7.33	9.06	9.38	9.77	9.38	9.53	9.26	8.85	9.43	9.94	11.66	11.72	11.95	12.11	12.15	11.23	12.35
	Index		100.0	123.6	128.0	133.3	128.0	130.0	126.3	120.7	128.6	135.6	159.1	159.9	163.0	165.2	165.8	153.2	168.5
	Average		6.88	7.76	8.11	8.38	8.12	8.32	8.16	7.92	8.62	9.15	10.43	10.76	10.86	10.93	10.87	10.51	11.50
	Index		100.0	112.8	117.9	121.8	118.0	120.9	118.6	115.2	125.3	133.0	151.6	156.3	157.9	158.9	158.0	152.8	167.1
WESTERN CANADA																			
	Average		6.95	7.95	8.43	8.73	8.71	8.97	8.62	8.41	9.11	9.65	10.40	10.76	10.89	10.85	10.82	10.68	11.52
	Index		100.0	114.3	121.2	125.6	125.3	129.0	124.0	120.9	131.0	138.9	149.6	154.8	156.7	156.1	155.7	153.6	165.7

NOTES:

Source: Canadian Grain Commission, *Summary - Licensed Primary Elevator Tariffs*

(1) Posted tariffs represent the maximum that companies may charge.
(2) Average charges on the basis of Accountable Gross Weight (AGW) = Gross weight less shrinkage for the 20 to 24 companies which posted tariffs on an AGW basis for the 1999-2000 to 2003-2004 crop years inclusive.
(3) Average charges on the basis of Gross Weight (GW) for the 24 to 26 companies which posted tariffs on a GW basis for the 2004-2005 to 2008-2009 crop years.

Primary Elevation Tariffs

1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	% VARIANCE		PROV	COMMODITY
Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1	Aug. 1		80-81/ 09-		
$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	$/tonne	07-08/ 08-09	10		MANITOBA
9.98	10.08	10.62	10.59	11.31	11.53	11.81	11.97	12.12	12.29	12.92	13.17	13.17	0.0%	119.1%		Wheat (incl.Durum)
166.1	167.7	176.7	176.2	188.2	191.8	196.5	199.2	201.7	204.5	215.0	219.1	219.1				Index
12.46	12.66	12.84	12.66	12.79	12.96	13.11	13.15	13.39	13.56	13.94	14.15	13.95	-1.4%	89.8%		Barley
169.5	172.2	174.7	172.2	174.0	176.3	178.4	178.9	182.2	184.5	189.7	192.5	189.8				Index
12.53	13.22	13.14	13.13	14.99	15.70	15.88	15.56	15.74	16.11	16.35	16.23	16.11	-0.7%	119.2%		Designated Barley
170.5	179.9	178.8	178.6	203.9	213.6	216.1	211.7	214.1	219.2	222.4	220.8	219.2				Index
12.29	12.49	13.00	12.74	13.33	13.51	13.94	13.97	14.23	14.07	14.40	14.31	13.90	-2.9%	85.3%		Canola
163.9	166.5	173.3	169.9	177.7	180.1	185.9	186.3	189.7	187.6	192.0	190.8	185.3				Index
13.97	13.57	14.02	13.90	14.12	14.45	14.85	15.05	15.36	15.44	15.62	15.39	14.77	-4.0%	63.4%		Oats
154.5	150.1	155.1	153.8	156.2	159.8	164.3	166.5	169.9	170.8	172.8	170.2	163.4				Index
12.61	12.70	12.97	12.92	14.18	14.18	14.54	14.40	14.46	15.12	15.88	15.80	15.00	-5.1%	n/a		Peas
118.6	119.5	122.0	121.5	133.4	133.4	136.8	135.5	136.0	142.2	149.4	148.6	141.1				Index
10.53	10.40	10.57	10.61	10.94	10.99	11.31	11.55	11.77	11.83	12.52	12.09	11.77	-2.6%	87.4%		Rye
167.7	165.6	168.3	168.9	174.2	175.0	180.1	183.9	187.4	188.4	199.4	192.5	187.4				Index
12.20	12.33	12.80	12.55	13.31	13.44	13.62	13.65	14.11	14.18	14.97	14.76	14.19	-3.9%	88.9%		Flaxseed
162.5	164.2	170.4	167.1	177.2	179.0	181.4	181.8	187.9	188.8	199.3	196.5	188.9				Index
12.07	12.18	12.50	12.39	13.12	13.35	13.63	13.66	13.90	14.08	14.58	14.49	14.11	-2.6%	93.5%		Average
165.6	167.1	171.4	169.9	180.0	183.0	187.0	187.4	190.6	193.0	199.9	198.7	193.5				Index
																SASKATCHEWAN
8.69	8.90	9.41	9.61	10.60	10.96	11.40	11.51	11.75	12.14	12.58	12.99	13.34	2.7%	150.8%		Wheat (incl.Durum)
163.3	167.3	176.9	180.6	199.2	206.0	214.3	216.4	220.9	228.2	236.5	244.2	250.8				Index
9.73	10.12	10.66	10.85	11.63	12.01	12.43	12.46	12.67	13.07	13.49	14.14	14.56	3.0%	124.7%		Barley
150.2	156.2	164.5	167.4	179.5	185.3	191.8	192.3	195.5	201.7	208.2	218.2	224.7				Index
9.76	10.85	11.39	11.81	13.25	14.16	14.37	14.50	14.82	15.30	15.69	16.02	16.58	3.5%	155.9%		Designated Barley
150.6	167.4	175.8	182.3	204.5	218.5	221.8	223.8	228.7	236.1	242.1	247.2	255.9				Index
12.12	12.28	12.34	12.55	13.02	12.45	12.88	12.85	12.99	13.20	13.55	14.88	15.53	4.4%	108.7%		Canola
162.9	165.1	165.9	168.7	175.0	167.3	173.1	172.7	174.6	177.4	182.1	200.0	208.7				Index
12.83	12.47	12.35	12.70	13.27	12.76	13.14	13.04	13.12	13.34	13.61	14.84	15.00	1.1%	91.1%		Oats
163.4	158.9	157.3	161.8	169.0	162.5	167.4	166.1	167.1	169.9	173.4	189.0	191.1				Index
13.11	13.21	13.30	13.42	14.03	12.96	13.39	13.36	13.21	13.76	13.93	16.00	16.82	5.1%	n/a		Peas
123.2	124.2	125.0	126.1	131.9	121.8	125.8	125.6	124.2	129.3	130.9	150.4	158.1				Index
9.74	9.53	10.29	10.47	10.26	9.85	10.05	10.11	10.22	10.35	10.81	12.20	12.73	4.3%	120.6%		Rye
168.8	165.2	178.3	181.5	177.8	170.7	174.2	175.2	177.1	179.4	187.3	211.4	220.6				Index
11.93	12.04	12.03	12.21	12.77	12.24	12.68	12.58	12.79	12.83	13.52	15.19	15.25	0.4%	105.0%		Flaxseed
160.3	161.8	161.7	164.1	171.6	164.5	170.4	169.1	171.9	172.4	181.7	204.2	205.0				Index
10.99	11.18	11.47	11.70	12.35	12.17	12.54	12.55	12.70	13.00	13.40	14.53	14.98	3.1%	124.1%		Average
164.4	167.2	171.7	175.1	184.9	182.2	187.7	187.8	190.0	194.5	200.5	217.5	224.1				Index
																ALBERTA & BRITISH COLUMBIA
9.52	9.63	9.99	10.05	11.11	11.36	11.56	11.96	12.29	12.64	13.05	13.51	13.96	3.3%	154.3%		Wheat (incl.Durum)
173.4	175.4	182.0	183.1	202.4	206.9	210.6	217.9	223.9	230.2	237.7	246.1	254.3				Index
10.83	10.93	11.03	11.02	11.70	12.09	12.03	12.52	13.00	13.36	13.76	14.40	14.78	2.6%	117.0%		Barley
159.0	160.5	162.0	161.8	171.8	177.5	176.7	183.8	190.9	196.2	202.1	211.5	217.0				Index
10.90	11.37	11.54	11.87	13.53	14.43	13.64	14.20	14.71	15.24	15.41	16.00	16.51	3.2%	142.4%		Designated Barley
160.1	167.0	169.5	174.3	198.7	211.9	200.3	208.5	216.0	223.8	226.3	234.9	242.4				Index
13.02	12.92	13.53	13.56	14.47	14.76	14.07	14.32	14.69	14.85	15.35	15.14	15.17	0.2%	110.1%		Canola
180.3	178.9	187.4	187.8	200.4	204.4	194.9	198.3	203.5	205.7	212.6	209.7	210.1				Index
12.45	11.80	12.68	12.71	13.99	14.39	13.74	13.80	14.23	14.34	14.76	14.56	14.64	0.5%	73.3%		Oats
147.3	139.6	150.1	150.4	165.6	170.3	162.6	163.3	168.4	169.7	174.7	172.3	173.3				Index
14.22	14.16	14.33	14.38	14.70	14.77	14.87	15.04	15.04	15.64	15.82	15.67	15.92	1.6%	n/a		Peas
138.7	138.1	139.8	140.3	143.4	144.1	145.1	146.7	146.7	152.6	154.3	152.9	155.3				Index
9.81	9.49	9.96	10.16	11.22	11.51	11.20	11.69	11.75	11.95	12.48	12.15	12.24	0.7%	102.3%		Rye
162.1	156.9	164.6	167.9	185.5	190.2	185.1	193.2	194.2	197.5	206.3	200.8	202.3				Index
12.58	12.49	13.09	13.12	14.21	14.49	14.29	14.56	14.84	15.13	15.87	15.49	15.55	0.4%	112.1%		Flaxseed
171.6	170.4	178.6	179.0	193.9	197.7	195.0	198.6	202.5	206.4	216.5	211.3	212.1				Index
11.67	11.60	12.02	12.11	13.12	13.48	13.18	13.51	13.82	14.14	14.56	14.62	14.85	1.6%	115.8%		Average
169.6	168.6	174.7	176.0	190.6	195.9	191.5	196.4	200.9	205.6	211.7	212.4	215.8				Index
																WESTERN CANADA
11.58	11.65	12.00	12.07	12.86	13.00	13.12	13.24	13.47	13.74	14.18	14.55	14.64	0.7%	110.7%		Average
166.5	167.6	172.6	173.6	185.1	187.0	188.7	190.5	193.8	197.6	204.0	209.2	210.7				Index

Primary Elevation Tariffs

Average Handling Charges Based on Posted Rates at Country Delivery Points for Major Grains
Removal of Dockage: Terminal Cleaning (1) (2) (3) (4)
- Index - Aug. 1, 1980 = 100 (Aug. 1, 1989 for Peas)

PROV / COMMODITY	NOTES	CROP YEAR																
MANITOBA		**1980-81 Aug. 1 $/tonne**	**1981-82 Aug. 1 $/tonne**	**1982-83 Aug. 1 $/tonne**	**1983-84 Aug. 1 $/tonne**	**1984-85 Aug. 1 $/tonne**	**1985-86 Aug. 1 $/tonne**	**1986-87 Aug. 1 $/tonne**	**1987-88 Aug. 1 $/tonne**	**1988-89 Aug. 1 $/tonne**	**1989-90 Aug. 1 $/tonne**	**1990-91 Aug. 1 $/tonne**	**1991-92 Aug. 1 $/tonne**	**1992-93 Aug. 1 $/tonne**	**1993-94 Aug. 1 $/tonne**	**1994-95 Aug. 1 $/tonne**	**1995-96 Aug. 1 $/tonne**	**1996-97 Aug. 1 $/tonne**
Wheat		1.31	1.47	1.65	1.77	1.87	1.90	1.87	1.82	1.88	2.20	2.35	2.51	2.55	3.00	3.01	3.13	3.24
		100.0	112.2	126.0	135.1	142.7	145.0	142.7	138.9	143.5	167.9	179.4	191.6	194.7	229.0	229.8	238.9	247.3
Durum		1.31	1.47	1.65	1.77	1.87	1.90	1.87	1.82	1.88	2.20	2.35	2.51	2.55	3.00	3.01	3.13	3.24
		100.0	112.2	126.0	135.1	142.7	145.0	142.7	138.9	143.5	167.9	179.4	191.6	194.7	229.0	229.8	238.9	247.3
Barley		1.58	1.78	2.02	2.16	2.20	2.16	2.17	2.11	2.15	2.46	2.53	2.59	2.65	3.59	3.71	3.87	4.02
		100.0	112.7	127.8	136.7	139.2	136.7	137.3	133.5	136.1	155.7	160.1	163.9	167.7	227.2	234.8	244.9	254.4
Canola		2.70	3.19	3.35	3.53	3.67	4.05	4.03	4.01	4.14	4.36	4.59	4.76	4.81	4.90	4.90	5.00	5.18
		100.0	118.1	124.1	130.7	135.9	150.0	149.3	148.5	153.3	161.5	170.0	176.3	178.1	181.5	181.5	185.2	191.9
Oats		2.40	2.47	2.76	2.84	3.01	3.01	3.02	2.92	2.96	3.37	3.61	3.69	3.72	4.77	4.91	5.12	5.30
		100.0	102.9	115.0	118.3	125.4	125.4	125.8	121.7	123.3	140.4	150.4	153.8	155.0	198.8	204.6	213.3	220.8
Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.65	3.84	3.98	4.00	4.07	4.07	4.16	4.31
											100.0	105.2	109.0	109.6	111.5	111.5	114.0	118.1
Rye		1.44	1.71	1.81	1.88	1.94	1.98	1.98	1.94	2.03	2.56	2.98	3.06	3.08	3.17	3.16	3.28	3.40
		100.0	118.8	125.7	130.6	134.7	137.5	137.5	134.7	141.0	177.8	206.9	212.5	213.9	220.1	219.4	227.8	236.1
Flaxseed		2.70	3.16	3.31	3.48	3.61	3.98	3.97	3.95	3.85	4.30	4.51	4.68	4.72	4.82	4.82	4.92	5.10
		100.0	117.0	122.6	128.9	133.7	147.4	147.0	146.3	142.6	159.3	167.0	173.3	174.8	178.5	178.5	182.2	188.9
Average		1.92	2.18	2.36	2.49	2.60	2.71	2.70	2.65	2.70	3.14	3.35	3.47	3.51	3.92	3.95	4.08	4.22
Index		100.0	113.5	123.1	129.7	135.2	141.2	140.7	138.2	140.6	163.4	174.2	180.9	182.8	203.9	205.7	212.3	220.0
SASKATCHEWAN																		
Wheat		1.15	1.24	1.50	1.59	1.70	1.87	1.69	1.72	1.87	2.16	2.34	2.47	2.55	2.96	3.08	3.13	3.25
		100.0	107.8	130.4	138.3	147.8	162.6	147.0	149.6	162.6	187.8	203.5	214.8	221.7	257.4	267.8	272.2	282.6
Durum		1.15	1.24	1.50	1.59	1.70	1.87	1.69	1.72	1.87	2.16	2.34	2.47	2.55	2.96	3.08	3.13	3.25
		100.0	107.8	130.4	138.3	147.8	162.6	147.0	149.6	162.6	187.8	203.5	214.8	221.7	257.4	267.8	272.2	282.6
Barley		1.36	1.46	1.79	1.91	2.03	2.18	1.90	1.95	2.06	2.39	2.41	2.49	2.53	3.44	3.81	3.88	4.02
		100.0	107.4	131.6	140.4	149.3	160.3	139.7	143.4	151.5	175.7	177.2	183.1	186.0	252.9	280.1	285.3	295.6
Canola		2.70	3.05	3.27	3.46	3.65	4.07	4.04	4.04	4.15	4.32	4.60	4.82	4.83	4.89	4.92	5.00	5.13
		100.0	113.0	121.1	128.1	135.2	150.7	149.6	149.6	153.7	160.0	170.4	178.5	178.9	181.1	182.2	185.2	190.0
Oats		2.00	2.11	2.52	2.66	2.81	3.03	2.71	2.74	2.87	3.30	3.57	3.75	3.74	4.66	5.03	5.12	5.26
		100.0	105.5	126.0	133.0	140.5	151.5	135.5	137.0	143.5	165.0	178.5	187.5	187.0	233.0	251.5	256.0	263.0
Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.68	3.84	4.02	4.02	4.08	4.09	4.17	4.27
											100.0	104.3	109.2	109.2	110.9	111.1	113.3	116.0
Rye		1.36	1.53	1.68	1.78	1.81	2.01	1.81	1.86	1.97	2.79	2.88	2.95	2.98	3.16	3.22	3.28	3.37
		100.0	112.5	123.5	130.9	133.1	147.8	133.1	136.8	144.9	205.1	211.8	216.9	219.1	232.4	236.8	241.2	247.8
Flaxseed		2.70	3.02	3.23	3.41	3.58	4.00	3.97	3.97	3.83	4.34	4.53	4.74	4.75	4.81	4.84	4.92	5.05
		100.0	111.9	119.6	126.3	132.6	148.1	147.0	147.0	141.9	160.7	167.8	175.6	175.9	178.1	179.3	182.2	187.0
Average		1.77	1.95	2.21	2.34	2.47	2.72	2.54	2.57	2.66	3.14	3.31	3.46	3.49	3.87	4.01	4.08	4.20
Index		100.0	109.9	124.7	132.0	139.1	153.2	143.4	144.9	149.9	177.1	186.8	195.2	196.9	218.1	225.9	229.9	236.7
ALBERTA & BRITISH COLUMBIA																		
Wheat		1.31	1.34	1.45	1.48	1.61	1.80	1.70	1.72	1.87	2.17	2.46	2.51	2.58	2.95	2.96	3.13	3.14
		100.0	102.3	110.7	113.0	122.9	137.4	129.8	131.3	142.7	165.6	187.8	191.6	196.9	225.2	226.0	238.9	239.7
Durum		1.31	1.34	1.45	1.48	1.61	1.80	1.70	1.72	1.87	2.17	2.46	2.51	2.58	2.95	2.96	3.13	3.14
		100.0	102.3	110.7	113.0	122.9	137.4	129.8	131.3	142.7	165.6	187.8	191.6	196.9	225.2	226.0	238.9	239.7
Barley		1.58	1.60	1.75	1.81	1.91	2.04	1.88	1.90	1.96	2.33	2.63	2.62	2.66	3.50	3.69	3.88	3.91
		100.0	101.3	110.8	114.6	120.9	129.1	119.0	120.3	124.1	147.5	166.5	165.8	168.4	221.5	233.5	245.6	247.5
Canola		2.70	3.10	3.29	3.43	3.63	4.03	4.02	4.02	4.03	4.40	4.58	4.71	4.78	4.84	4.92	5.01	5.13
		100.0	114.8	121.9	127.0	134.4	149.3	148.9	148.9	149.3	163.0	169.6	174.4	177.0	179.3	182.2	185.6	190.0
Oats		2.23	2.25	2.42	2.49	2.65	2.76	2.60	2.63	2.70	3.28	3.69	3.68	3.72	4.62	4.62	5.13	4.97
		100.0	100.9	108.5	111.7	118.8	123.8	116.6	117.9	121.1	147.1	165.5	165.0	166.8	207.2	207.2	230.0	222.9
Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.68	3.82	3.95	4.00	4.07	4.09	4.17	4.29
											100.0	103.8	107.3	108.7	110.6	111.1	113.3	116.6
Rye		1.43	1.57	1.60	1.68	1.76	1.85	1.75	1.77	1.87	2.74	3.01	3.11	3.17	3.21	3.22	3.29	3.38
		100.0	109.8	111.9	117.5	123.1	129.4	122.4	123.8	130.8	191.6	210.5	217.5	221.7	224.5	225.2	230.1	236.4
Flaxseed		2.70	3.07	3.25	3.41	3.59	3.91	3.91	3.94	3.67	4.30	4.52	4.66	4.74	4.81	4.83	4.93	5.07
		100.0	113.7	120.4	126.3	133.0	144.8	144.8	145.9	135.9	159.3	167.4	172.6	175.6	178.1	178.9	182.6	187.8
Average		1.89	2.04	2.17	2.25	2.39	2.60	2.51	2.53	2.57	3.13	3.40	3.47	3.53	3.87	3.91	4.08	4.13
Index		100.0	107.6	114.7	119.0	126.4	137.2	132.4	133.5	135.5	165.4	179.3	183.1	186.3	204.2	206.5	215.6	218.0
WESTERN CANADA																		
Average		1.86	2.06	2.25	2.36	2.49	2.68	2.58	2.58	2.64	3.14	3.35	3.47	3.51	3.88	3.96	4.08	4.18
Index		100.0	110.4	120.8	126.8	133.5	143.7	138.8	138.7	141.8	168.4	179.9	186.2	188.5	208.5	212.4	219.0	224.6

NOTES:

Source: Canadian Grain Commission, *Summary - Licensed Primary Elevator Tariffs*

(1) Posted tariffs represent the maximum that companies may charge.

(2) Average charges on the basis of Accountable Gross Weight (AGW) = Gross weight less shrinkage for the 20 to 22 companies which posted tariffs on an AGW basis for the 1999-2000 to 2003-2004 crop years inclusive.

(3) Average charges on the basis of Gross Weight (GW) for the 24 to 26 companies which posted tariffs on a GW basis for the 2004-2005 to 2008-2009 crop years.

(4) Cleaning charges are deducted from producers' cash ticket receipts. Upon unload at terminal position, the shipper pays the terminal cleaning tariff (providing the grain was not cleaned prior to shipping) and Canadian Grain Commission fees.

Primary Elevation Tariffs

1997-98 Aug. 1 $/tonne	1998-99 Aug. 1 $/tonne	1999-00 Aug. 1 $/tonne	2000-01 Aug. 1 $/tonne	2001-02 Aug. 1 $/tonne	2002-03 Aug. 1 $/tonne	2003-04 Aug. 1 $/tonne	2004-05 Aug. 1 $/tonne	2005-06 Aug. 1 $/tonne	2006-07 Aug. 1 $/tonne	2007-08 Aug. 1 $/tonne	2008-09 Aug. 1 $/tonne	2009-10 Aug. 1 $/tonne	% VARIANCE 07-08/ 08-09	% VARIANCE 99-00/ 08-09	PROV	COMMODITY
																MANITOBA
3.48	3.55	3.50	3.52	3.65	3.87	3.99	4.21	4.42	4.60	4.79	5.01	5.27	5.2%	302.3%		Wheat
265.6	271.0	267.2	268.7	278.6	295.4	304.6	321.4	337.4	351.1	365.6	382.4	402.3				
3.48	3.55	3.50	3.52	3.73	3.91	4.01	4.25	4.43	4.63	4.81	5.01	5.22	4.2%	298.5%		Durum
265.6	271.0	267.2	268.7	284.7	298.5	306.1	324.2	338.2	353.4	367.2	382.4	398.5				
4.19	4.28	4.29	4.95	5.51	5.87	6.08	6.23	6.94	7.23	7.72	7.90	8.17	3.4%	417.1%		Barley
265.2	270.9	271.5	313.3	348.7	371.5	384.8	394.3	439.2	457.6	488.6	500.0	517.1				
5.26	5.42	5.43	5.46	5.59	5.74	5.83	6.03	6.80	6.76	7.00	7.14	7.16	0.3%	165.2%		Canola
194.8	200.7	201.1	202.2	207.0	212.6	215.9	223.3	251.9	250.4	259.3	264.4	265.2				
5.37	5.31	5.32	5.36	5.47	5.62	5.73	5.76	5.92	6.02	6.03	6.10	6.13	0.5%	155.4%		Oats
223.8	221.3	221.7	223.3	227.9	234.2	238.8	240.0	246.7	250.8	251.3	254.2	255.4				
4.68	4.94	4.59	4.62	4.61	5.16	5.21	6.11	6.34	6.24	6.78	6.65	6.90	3.8%	n/a		Peas
128.2	135.3	125.8	126.6	126.3	141.4	142.7	167.4	173.7	171.0	185.8	182.2	189.0				
3.48	3.60	3.55	3.60	3.68	3.80	3.81	4.15	4.33	4.32	4.40	4.45	4.47	0.4%	210.4%		Rye
241.7	250.0	246.5	250.0	255.6	263.9	264.6	288.2	300.7	300.0	305.6	309.0	310.4				
5.19	5.32	5.47	6.09	7.11	7.39	7.13	7.31	8.29	8.82	8.87	8.86	8.90	0.5%	229.6%		Flaxseed
192.2	197.0	202.6	225.6	263.3	273.7	264.1	270.7	307.0	326.7	328.5	328.1	329.6				
4.39	4.50	4.46	4.64	4.92	5.17	5.22	5.51	5.93	6.08	6.30	6.39	6.53	2.2%	240.0%		Average
228.7	234.2	232.1	241.7	256.2	269.3	272.1	286.8	309.0	316.5	328.1	332.8	340.0				Index
																SASKATCHEWAN
3.37	5.49	3.62	3.63	3.78	3.95	4.02	4.15	4.31	4.61	4.84	5.07	5.71	12.6%	396.5%		Wheat
293.0	477.4	314.8	315.7	328.7	343.5	349.6	360.9	374.8	400.9	420.9	440.9	496.5				
3.37	5.49	3.62	3.63	3.85	4.03	4.12	4.25	4.33	4.64	4.86	5.07	5.68	12.0%	393.9%		Durum
293.0	477.4	314.8	315.7	334.8	350.4	358.3	369.6	376.5	403.5	422.6	440.9	493.9				
4.12	4.22	4.36	4.71	5.66	5.95	6.14	6.21	6.83	7.59	7.84	8.16	8.59	5.3%	531.6%		Barley
302.9	310.3	320.6	346.3	416.2	437.5	451.5	456.6	502.2	558.1	576.5	600.0	631.6				
5.25	5.37	5.46	5.45	5.55	5.65	5.69	5.75	5.90	6.05	6.31	6.46	6.64	2.8%	145.9%		Canola
194.4	198.9	202.2	201.9	205.6	209.3	210.7	213.0	218.5	224.1	233.7	239.3	245.9				
5.37	5.18	5.25	5.42	5.48	5.56	5.60	5.69	5.83	5.83	5.95	6.15	6.16	0.2%	208.0%		Oats
268.5	259.0	262.5	271.0	274.0	278.0	280.0	284.5	291.5	291.5	297.5	307.5	308.0				
4.31	4.54	4.58	4.61	4.56	4.84	4.88	5.11	5.31	5.44	5.66	6.14	6.21	1.1%	n/a		Peas
117.1	123.4	124.5	125.3	123.9	131.5	132.6	138.9	144.3	147.8	153.8	166.8	168.8				
3.43	3.51	3.68	3.73	3.67	3.72	3.75	3.89	4.01	4.12	4.34	4.55	5.09	11.9%	274.3%		Rye
252.2	258.1	270.6	274.3	269.9	273.5	275.7	286.0	294.9	302.9	319.1	334.6	374.3				
5.37	5.42	5.50	5.91	6.34	6.59	6.44	6.80	7.29	7.77	7.96	8.33	8.54	2.5%	216.3%		Flaxseed
198.9	200.7	203.7	218.9	234.8	244.1	238.5	251.9	270.0	287.8	294.8	308.5	316.3				
4.32	4.90	4.51	4.64	4.86	5.04	5.08	5.23	5.48	5.76	5.97	6.24	6.58	5.4%	270.7%		Average
243.7	276.3	254.1	261.3	274.0	283.8	286.3	294.8	308.6	324.4	336.5	351.8	370.7				Index
																ALBERTA & BRITISH COLUMBIA
3.36	3.45	3.47	3.49	3.73	3.95	4.03	4.34	4.81	5.09	5.34	5.45	5.67	4.0%	332.8%		Wheat
256.5	263.4	264.9	266.4	284.7	301.5	307.6	331.3	367.2	388.5	407.6	416.0	432.8				
3.36	3.45	3.47	3.49	3.83	4.00	4.08	4.40	4.85	5.11	5.35	5.45	5.67	4.0%	332.8%		Durum
256.5	263.4	264.9	266.4	292.4	305.3	311.5	335.9	370.2	390.1	408.4	416.0	432.8				
4.17	4.26	4.31	4.85	5.89	6.01	6.41	6.66	7.15	7.72	8.12	8.12	8.33	2.6%	427.2%		Barley
263.9	269.6	272.8	307.0	372.8	380.4	405.7	421.5	452.5	488.6	513.9	513.9	527.2				
5.23	5.39	5.47	5.56	5.74	5.87	5.96	6.09	6.17	6.43	6.61	6.67	6.68	0.1%	147.4%		Canola
193.7	199.6	202.6	205.9	212.6	217.4	220.7	225.6	228.5	238.1	244.8	247.0	247.4				
4.82	4.82	5.09	5.33	5.37	5.71	5.79	5.93	5.96	6.16	6.30	6.34	6.33	-0.2%	183.9%		Oats
216.1	216.1	228.3	239.0	240.8	256.1	259.6	265.9	267.3	276.2	282.5	284.3	283.9				
4.36	4.70	4.63	4.72	4.67	4.98	4.93	5.31	5.44	5.50	5.91	5.82	5.89	1.2%	n/a		Peas
118.5	127.7	125.8	128.3	126.9	135.3	134.0	144.3	147.8	149.5	160.6	158.2	160.1				
3.43	3.55	3.62	3.68	3.92	4.09	4.02	4.37	4.42	4.73	4.90	4.87	4.87	0.0%	240.6%		Rye
239.9	248.3	253.1	257.3	274.1	286.0	281.1	305.6	309.1	330.8	342.7	340.6	340.6				
5.15	5.27	6.02	6.69	6.81	7.10	6.91	7.14	7.46	8.02	7.96	7.81	7.72	-1.2%	185.9%		Flaxseed
190.7	195.2	223.0	247.8	252.2	263.0	255.9	264.4	276.3	297.0	294.8	289.3	285.9				
4.24	4.36	4.51	4.73	5.00	5.21	5.27	5.53	5.78	6.10	6.31	6.32	6.40	1.2%	237.6%		Average
223.6	230.2	238.1	249.5	263.7	275.2	278.0	291.9	305.3	321.8	333.2	333.4	337.6				Index
																WESTERN CANADA
4.32	4.59	4.49	4.67	4.93	5.14	5.19	5.42	5.73	5.98	6.19	6.32	6.50	2.9%	248.9%		Average
231.7	246.2	241.1	250.6	264.4	275.9	278.6	291.1	307.6	320.8	332.5	339.0	348.9				Index

Primary Elevation Tariffs

Average Handling Charges Based on Posted Rates at Country Delivery Points for Major Grains
Storage (1) (2) (3) (4)

- Index - Aug. 1, 1980 = 100 (Aug. 1, 1989 for Peas)

PROV	COMMODITY	NOTES	CROP YEAR															
			1980-81 Aug. 1 $/tonne	1981-82 Aug. 1 $/tonne	1982-83 Aug. 1 $/tonne	1983-84 Aug. 1 $/tonne	1984-85 Aug. 1 $/tonne	1985-86 Aug. 1 $/tonne	1986-87 Aug. 1 $/tonne	1987-88 Aug. 1 $/tonne	1988-89 Aug. 1 $/tonne	1989-90 Aug. 1 $/tonne	1990-91 Aug. 1 $/tonne	1991-92 Aug. 1 $/tonne	1992-93 Aug. 1 $/tonne	1993-94 Aug. 1 $/tonne	1994-95 Aug. 1 $/tonne	1995-96 Aug. 1 $/tonne	1996-97 Aug. 1 $/tonne
MANITOBA																			
	Wheat (incl.Durum)		0.0200	0.0220	0.0220	0.0230	0.0237	0.0256	0.0260	0.0260	0.0287	0.0318	0.0346	0.0364	0.0364	0.0373	0.0374	0.0450	0.0461
			100.0	110.0	110.0	115.0	118.5	128.0	130.0	130.0	143.5	159.0	173.0	182.0	182.0	186.5	187.0	225.0	230.5
	Barley		0.0330	0.0270	0.0270	0.0280	0.0295	0.0315	0.0320	0.0320	0.0356	0.0395	0.0434	0.0453	0.0453	0.0462	0.0463	0.0557	0.0570
			100.0	81.8	81.8	84.8	89.4	95.5	97.0	97.0	107.9	119.7	131.5	137.3	137.3	140.0	140.3	168.8	172.7
	Canola		0.0240	0.0260	0.0260	0.0270	0.0284	0.0305	0.0310	0.0310	0.0337	0.0377	0.0414	0.0433	0.0433	0.0441	0.0441	0.0534	0.0529
			100.0	108.3	108.3	112.5	118.3	127.1	129.2	129.2	140.4	157.1	172.5	180.4	180.4	183.8	183.8	222.5	220.4
	Oats		0.0250	0.0360	0.0360	0.0380	0.0395	0.0423	0.0430	0.0430	0.0475	0.0514	0.0571	0.0590	0.0591	0.0600	0.0600	0.0724	0.0714
			100.0	144.0	144.0	152.0	158.0	169.2	172.0	172.0	190.0	205.6	228.4	236.0	236.4	240.0	240.0	289.6	285.6
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0318	0.0346	0.0364	0.0364	0.0373	0.0374	0.0450	0.0441
												100.0	108.8	114.5	114.5	117.3	117.6	141.5	138.7
	Rye		0.0200	0.0230	0.0230	0.0240	0.0254	0.0268	0.0270	0.0270	0.0297	0.0327	0.0364	0.0383	0.0383	0.0392	0.0393	0.0474	0.0471
			100.0	115.0	115.0	120.0	127.0	134.0	135.0	135.0	148.5	163.5	182.0	191.5	191.5	196.0	196.5	237.0	235.5
	Flaxseed		0.0240	0.0260	0.0260	0.0270	0.0284	0.0305	0.0310	0.0310	0.0337	0.0377	0.0414	0.0424	0.0424	0.0433	0.0434	0.0523	0.0518
			100.0	108.3	108.3	112.5	118.3	127.1	129.2	129.2	140.4	157.1	172.5	176.7	176.7	180.4	180.8	217.9	215.8
	Average		0.0243	0.0267	0.0267	0.0278	0.0292	0.0312	0.0317	0.0317	0.0348	0.0375	0.0413	0.0430	0.0430	0.0439	0.0440	0.0530	0.0529
	Index		100.0	109.6	109.6	114.4	119.8	128.2	130.1	130.1	143.1	154.2	169.6	176.8	176.8	180.5	180.8	217.9	217.5
SASKATCHEWAN																			
	Wheat (incl.Durum)		0.0200	0.0220	0.0220	0.0230	0.0238	0.0259	0.0260	0.0260	0.0290	0.0320	0.0346	0.0364	0.0365	0.0374	0.0375	0.0434	0.0453
			100.0	110.0	110.0	115.0	119.0	129.5	130.0	130.0	145.0	160.0	173.0	182.0	182.5	187.0	187.5	217.0	226.5
	Barley		0.0330	0.0270	0.0270	0.0280	0.0296	0.0319	0.0320	0.0320	0.0360	0.0400	0.0435	0.0453	0.0454	0.0463	0.0464	0.0538	0.0549
			100.0	81.8	81.8	84.8	89.7	96.7	97.0	97.0	109.1	121.2	131.8	137.3	137.6	140.3	140.6	163.0	166.4
	Canola		0.0240	0.0260	0.0260	0.0270	0.0285	0.0309	0.0310	0.0310	0.0349	0.0380	0.0415	0.0433	0.0434	0.0442	0.0443	0.0516	0.0508
			100.0	108.3	108.3	112.5	118.8	128.8	129.2	129.2	145.4	158.3	172.9	180.4	180.8	184.2	184.6	215.0	211.7
	Oats		0.0250	0.0360	0.0360	0.0380	0.0396	0.0429	0.0430	0.0430	0.0480	0.0520	0.0573	0.0591	0.0592	0.0601	0.0602	0.0699	0.0685
			100.0	144.0	144.0	152.0	158.4	171.6	172.0	172.0	192.0	208.0	229.2	236.4	236.8	240.4	240.8	279.6	274.0
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0320	0.0346	0.0364	0.0365	0.0374	0.0375	0.0434	0.0425
												100.0	108.1	113.8	114.1	116.9	117.2	135.6	132.8
	Rye		0.0200	0.0230	0.0230	0.0240	0.0255	0.0270	0.0270	0.0270	0.0300	0.0330	0.0365	0.0383	0.0384	0.0393	0.0394	0.0458	0.0453
			100.0	115.0	115.0	120.0	127.5	135.0	135.0	135.0	150.0	165.0	182.5	191.5	192.0	196.5	197.0	229.0	226.5
	Flaxseed		0.0240	0.0260	0.0260	0.0270	0.0285	0.0309	0.0310	0.0310	0.0336	0.0380	0.0415	0.0424	0.0425	0.0434	0.0435	0.0504	0.0498
			100.0	108.3	108.3	112.5	118.8	128.8	129.2	129.2	140.0	158.3	172.9	176.7	177.1	180.8	181.3	210.0	207.5
	Average		0.0243	0.0267	0.0267	0.0278	0.0293	0.0316	0.0317	0.0317	0.0353	0.0379	0.0414	0.0430	0.0431	0.0440	0.0441	0.0512	0.0510
	Index		100.0	109.6	109.6	114.4	120.2	129.8	130.1	130.1	144.9	155.6	170.0	176.8	177.2	180.9	181.3	210.4	209.6
ALBERTA & BRITISH COLUMBIA																			
	Wheat (incl.Durum)		0.0200	0.0220	0.0220	0.0230	0.0238	0.0258	0.0260	0.0260	0.0289	0.0320	0.0347	0.0360	0.0361	0.0368	0.0374	0.0458	0.0465
			100.0	110.0	110.0	115.0	119.0	129.0	130.0	130.0	144.5	160.0	173.5	180.0	180.5	184.0	187.0	229.0	232.5
	Barley		0.0330	0.0270	0.0270	0.0280	0.0296	0.0318	0.0320	0.0320	0.0359	0.0400	0.0436	0.0449	0.0450	0.0457	0.0463	0.0566	0.0573
			100.0	81.8	81.8	84.8	89.7	96.4	97.0	97.0	108.8	121.2	132.1	136.1	136.4	138.5	140.3	171.5	173.6
	Canola		0.0240	0.0260	0.0260	0.0270	0.0286	0.0308	0.0310	0.0310	0.0349	0.0377	0.0410	0.0421	0.0423	0.0427	0.0443	0.0542	0.0533
			100.0	108.3	108.3	112.5	119.2	128.3	129.2	129.2	145.4	157.1	170.8	175.4	176.3	177.9	184.6	225.8	222.1
	Oats		0.0250	0.0360	0.0360	0.0380	0.0396	0.0428	0.0430	0.0430	0.0479	0.0520	0.0574	0.0587	0.0588	0.0594	0.0601	0.0734	0.0743
			100.0	144.0	144.0	152.0	158.4	171.2	172.0	172.0	191.6	208.0	229.6	234.8	235.2	237.6	240.4	293.6	297.2
	Peas		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0320	0.0347	0.0360	0.0361	0.0368	0.0374	0.0458	0.0457
												100.0	108.4	112.5	112.8	115.0	116.9	143.1	142.8
	Rye		0.0200	0.0230	0.0230	0.0240	0.0256	0.0270	0.0270	0.0270	0.0300	0.0330	0.0366	0.0379	0.0380	0.0387	0.0393	0.0482	0.0488
			100.0	115.0	115.0	120.0	128.0	135.0	135.0	135.0	150.0	165.0	183.0	189.5	190.0	193.5	196.5	241.0	244.0
	Flaxseed		0.0240	0.0260	0.0260	0.0270	0.0286	0.0308	0.0310	0.0310	0.0340	0.0380	0.0416	0.0422	0.0423	0.0430	0.0434	0.0530	0.0530
			100.0	108.3	108.3	112.5	119.2	128.3	129.2	129.2	141.7	158.3	173.3	175.8	176.3	179.2	180.8	220.8	220.8
	Average		0.0243	0.0267	0.0267	0.0278	0.0293	0.0315	0.0317	0.0317	0.0353	0.0378	0.0414	0.0425	0.0427	0.0433	0.0440	0.0539	0.0541
	Index		100.0	109.6	109.6	114.4	120.4	129.5	130.1	130.1	144.9	155.4	170.0	174.8	175.3	177.9	180.9	221.3	222.4
WESTERN CANADA																			
	Average		0.0243	0.0267	0.0267	0.0278	0.0292	0.0314	0.0317	0.0317	0.0351	0.0377	0.0413	0.0429	0.0429	0.0437	0.0440	0.0527	0.0527
	Index		100.0	109.6	109.6	114.4	120.1	129.2	130.1	130.1	144.3	155.0	169.9	176.1	176.5	179.8	181.0	216.5	216.5

NOTES:

Source: Canadian Grain Commission, *Summary - Licensed Primary Elevator Tariffs*

(1) With respect to primary elevator receipts and interim elevator receipts, for each succeeding day or part thereof after the first ten days, excluding the day on which the storage period ends.

(2) Posted tariffs represent the maximum that companies may charge.

(3) Average charges on the basis of Accountable Gross Weight (AGW) = Gross weight less shrinkage for the 18 to 21 companies which posted tariffs on an AGW basis for the 1999-2000 to 2003-2004 crop years inclusive.

(4) Average charges on the basis of Gross Weight (GW) for the 22 to 25 companies which posted tariffs on a GW basis for the 2004-2005 to 2008-2009 crop years.

Primary Elevation Tariffs

1997-98 Aug. 1 $/tonne	1998-99 Aug. 1 $/tonne	1999-00 Aug. 1 $/tonne	2000-01 Aug. 1 $/tonne	2001-02 Aug. 1 $/tonne	2002-03 Aug. 1 $/tonne	2003-04 Aug. 1 $/tonne	2004-05 Aug. 1 $/tonne	2005-06 Aug. 1 $/tonne	2006-07 Aug. 1 $/tonne	2007-08 Aug. 1 $/tonne	2008-09 Aug. 1 $/tonne	2009-10 Aug. 1 $/tonne	% VARIANCE 07-08/ 08-09	% VARIANCE 99-00/ 08-09	PROV	COMMODITY
																MANITOBA
0.0492	0.0505	0.0510	0.0526	0.0747	0.0783	0.0823	0.0908	0.0802	0.0972	0.0924	0.0974	0.0972	-0.2%	386.0%		Wheat (incl.Durum)
246.0	252.5	255.0	263.0	373.5	391.5	411.5	454.0	401.0	486.0	462.0	487.0	486.0				
0.0613	0.0620	0.0625	0.0646	0.0831	0.0891	0.0924	0.0974	0.0934	0.1128	0.1046	0.1076	0.1055	-2.0%	219.7%		Barley
185.8	187.9	189.4	195.8	251.8	270.0	280.0	295.2	283.0	341.8	317.0	326.1	319.7				
0.0547	0.0573	0.0576	0.0614	0.0783	0.0815	0.0823	0.0823	0.0877	0.1055	0.1069	0.1039	0.1117	7.5%	365.4%		Canola
227.9	238.8	240.0	255.8	326.3	339.6	342.9	342.9	365.4	439.6	445.4	432.9	465.4				
0.0717	0.0759	0.0764	0.0817	0.1038	0.1074	0.1096	0.1076	0.1126	0.1323	0.1218	0.1218	0.1275	4.7%	410.0%		Oats
286.8	303.6	305.6	326.8	415.2	429.6	438.4	430.4	450.4	529.2	487.2	487.2	510.0				
0.0449	0.0454	0.0479	0.0510	0.0657	0.0683	0.0686	0.0692	0.0720	0.0848	0.0942	0.0872	0.0824	-5.5%	n/a		Peas
141.2	142.8	150.6	160.4	206.6	214.8	215.7	217.6	226.4	266.7	296.2	274.2	259.1				
0.0473	0.0499	0.0493	0.0524	0.0673	0.0699	0.0710	0.0712	0.0756	0.0890	0.0979	0.0929	0.1024	10.2%	412.0%		Rye
236.5	249.5	246.5	262.0	336.5	349.5	355.0	356.0	378.0	445.0	489.5	464.5	512.0				
0.0538	0.0571	0.0561	0.0593	0.0703	0.0729	0.0739	0.0733	0.0790	0.0921	0.1000	0.1010	0.1095	8.4%	356.3%		Flaxseed
224.2	237.9	233.8	247.1	292.9	303.8	307.9	305.4	329.2	383.8	416.7	420.8	456.3				
0.0547	0.0569	0.0573	0.0604	0.0776	0.0811	0.0829	0.0845	0.0858	0.1020	0.1025	0.1017	0.1052	3.4%	332.2%		Average
224.8	233.7	235.3	248.3	318.9	333.1	340.6	347.4	352.5	419.0	421.4	417.9	432.2				Index
																SASKATCHEWAN
0.0476	0.0497	0.0514	0.0529	0.0704	0.0699	0.0720	0.0780	0.0762	0.0886	0.0934	0.1063	0.1054	-0.8%	427.0%		Wheat (incl.Durum)
238.0	248.5	257.0	264.5	352.0	349.5	360.0	390.0	381.0	443.0	467.0	531.5	527.0				
0.0587	0.0609	0.0610	0.0627	0.0807	0.0803	0.0817	0.0869	0.0882	0.1023	0.1058	0.1152	0.1212	5.2%	267.3%		Barley
177.9	184.5	184.8	190.0	244.5	243.3	247.6	263.3	267.3	310.0	320.6	349.1	367.3				
0.0518	0.0534	0.0571	0.0592	0.0767	0.0730	0.0736	0.0776	0.0801	0.0947	0.1100	0.1287	0.1405	9.2%	485.4%		Canola
215.8	222.5	237.9	246.7	319.6	304.2	306.7	323.3	333.8	394.6	458.3	536.3	585.4				
0.0685	0.0727	0.0745	0.0772	0.0997	0.0942	0.0961	0.1001	0.1033	0.1194	0.1308	0.1456	0.1577	8.3%	530.8%		Oats
274.0	290.8	298.0	308.8	398.8	376.8	384.4	400.4	413.2	477.6	523.2	582.4	630.8				
0.0430	0.0440	0.0490	0.0508	0.0647	0.0618	0.0622	0.0655	0.0673	0.0792	0.0989	0.1160	0.1160	0.0%	n/a		Peas
134.4	137.5	153.1	158.8	202.2	193.1	194.4	204.7	210.3	247.5	309.1	362.5	362.5				
0.0452	0.0477	0.0493	0.0510	0.0652	0.0622	0.0632	0.0675	0.0695	0.0817	0.1012	0.1182	0.1238	4.7%	519.0%		Rye
226.0	238.5	246.5	255.0	326.0	311.0	316.0	337.5	347.5	408.5	506.0	591.0	619.0				
0.0510	0.0529	0.0548	0.0570	0.0690	0.0664	0.0669	0.0696	0.0718	0.0838	0.1058	0.1282	0.1298	1.2%	440.8%		Flaxseed
212.5	220.4	228.3	237.5	287.5	276.7	278.8	290.0	299.2	349.2	440.8	534.2	540.8				
0.0523	0.0545	0.0567	0.0587	0.0752	0.0725	0.0737	0.0779	0.0795	0.0928	0.1066	0.1226	0.1278	4.2%	425.1%		Average
214.8	223.9	233.1	241.2	309.0	298.1	302.8	320.1	326.7	381.4	437.9	503.8	525.1				Index
																ALBERTA & BRITISH COLUMBIA
0.0500	0.0515	0.0535	0.0550	0.0764	0.0812	0.0741	0.0721	0.0788	0.0888	0.0977	0.0988	0.1010	2.2%	405.0%		Wheat (incl.Durum)
250.0	257.5	267.5	275.0	382.0	406.0	370.5	360.5	394.0	444.0	488.5	494.0	505.0				
0.0620	0.0625	0.0649	0.0670	0.0921	0.0977	0.0914	0.0845	0.0916	0.1022	0.1116	0.1107	0.1161	4.9%	251.8%		Barley
187.9	189.4	196.7	203.0	279.1	296.1	277.0	256.1	277.6	309.7	338.2	335.5	351.8				
0.0553	0.0602	0.0617	0.0649	0.0904	0.0962	0.0879	0.0832	0.0940	0.1027	0.1148	0.1067	0.1181	10.7%	392.1%		Canola
230.4	250.8	257.1	270.4	376.7	400.8	366.3	346.7	391.7	427.9	478.3	444.6	492.1				
0.0758	0.0781	0.0817	0.0855	0.1153	0.1215	0.1066	0.1017	0.1117	0.1210	0.1266	0.1209	0.1278	5.7%	411.2%		Oats
303.2	312.4	326.8	342.0	461.2	486.0	426.4	406.8	446.8	484.0	506.4	483.6	511.2				
0.0464	0.0478	0.0502	0.0529	0.0711	0.0753	0.0691	0.0683	0.0804	0.0862	0.1049	0.0949	0.0916	-3.5%	n/a		Peas
145.0	149.4	156.9	165.3	222.2	235.3	215.9	213.4	251.3	269.4	327.8	296.6	286.3				
0.0494	0.0520	0.0518	0.0547	0.0782	0.0830	0.0762	0.0715	0.0823	0.0890	0.1072	0.0999	0.1114	11.5%	457.0%		Rye
247.0	260.0	259.0	273.5	391.0	415.0	381.0	357.5	411.5	445.0	536.0	499.5	557.0				
0.0533	0.0593	0.0599	0.0626	0.0807	0.0856	0.0788	0.0734	0.0842	0.0909	0.1123	0.1096	0.1175	7.2%	389.6%		Flaxseed
222.1	247.1	249.6	260.8	336.3	356.7	328.3	305.8	350.8	378.8	467.9	456.7	489.6				
0.0560	0.0588	0.0605	0.0632	0.0863	0.0915	0.0834	0.0792	0.0890	0.0973	0.1107	0.1059	0.1119	5.7%	360.0%		Average
230.3	241.5	248.7	259.8	354.7	376.0	342.9	325.7	365.8	399.7	455.0	435.3	460.0				Index
																WESTERN CANADA
0.0543	0.0567	0.0582	0.0608	0.0797	0.0817	0.0800	0.0806	0.0848	0.0973	0.1066	0.1101	0.1150	4.4%	372.4%		Average
223.3	233.0	239.1	249.8	327.6	335.8	328.7	331.1	348.3	400.0	438.1	452.3	472.4				Index

Annual Prices for Major Grains

(dollars per tonnes)

GRAIN	NOTES	CROP YEAR															
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Wheat																	
1 CWRS	**(1)**	222.12	199.62	192.34	193.98	186.37	160.00	130.00	134.02	197.14	172.11	135.00	134.14	156.82	164.01	195.59	254.16
Durum																	
1 CWAD	**(1)**	239.58	200.34	187.45	204.04	204.85	181.30	150.20	169.36	204.48	163.85	125.00	135.32	158.36	235.36	271.01	286.13
Canola																	
1 CC	**(2)**	336.18	326.08	315.46	447.67	387.83	304.41	241.49	302.85	341.02	305.98	291.16	276.55	324.99	390.03	417.23	434.92

NOTES:

Source: Canadian Wheat Board and ICE Futures Canada

(1) Final realized price after deduction of CWB operating costs - Basis Instore the St. Lawrence or Vancouver (Eastern pooling point changed from Thunder Bay to St. Lawrence in 1995-96 crop year)
(2) Annual Average of Average Monthly Nearby ICE (WCE) Futures

Annual Prices for Major Grains

S6-E

1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	% VARIANCE 08-09/09-10	% VARIANCE 80-81/09-10	GRAIN
208.20	190.76	184.08	167.58	176.89	203.84	236.75	203.51	183.98	173.29	202.90	362.80	285.44	197.84	-30.7%	-10.9%	**Wheat 1 CWRS**
249.91	278.21	201.15	206.79	234.17	257.12	266.88	221.84	192.13	170.30	215.61	505.97	367.00	189.49	-48.4%	-20.9%	**Durum 1 CWAD**
411.83	392.81	345.27	264.68	275.98	341.90	392.84	377.38	291.81	258.13	348.48	549.01	443.93	399.11	-10.1%	18.7%	**Canola 1 CC**