

CANADIAN BACKGROUND AND DESCRIPTION

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INTRODUCTION

The main purpose of this paper is to promote the understanding of "western grain policy" by describing the evolution and current mix of policy instruments and programs of this policy.¹ The policy instruments/programs described herein include the major federal and cost-shared federal-provincial initiatives applying directly to the western grain industry. They were selected on the basis that they account for both the largest amount of government expenditures and regulatory policy in this regard.²

The following section examines the evolution of government intervention in, and policy developments towards, the Prairie³ grain industry. The third section provides a description of the operation of the current mix of policy instruments and programs that collectively comprise western grain policy. The fourth section summarizes the major changes in Canadian agricultural policy announced in the recent federal budget of February 27, 1995. The last section offers some observations and potential future trends in overall western grain policy. In addition to the main body of the paper, two appendices contain additional background information. Appendix A provides a description of the western grain

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¹ The term 'grain' is used generically throughout the paper to include grain, oilseeds and special crops.

² Not all of these policy instruments are necessarily specific to the western grain - for example, NISA applies to most commodities across Canada.

³ The term 'Prairie' is used synonymously with the area that falls under the jurisdiction of the Canadian Wheat Board, often referred to as the 'designated region.'

production, handling and transportation system while Appendix B contains a list of crops and processed products eligible to be moved under the Western Grain Transportation Act.

EVOLUTION OF WESTERN GRAIN POLICY

From the outset, agricultural development of the Prairies was a key federal policy goal. Settlement of the west was promoted by several means—the completion of the transcontinental Canadian Pacific Railway (CPR) in 1885; grants to immigrants; an active promotional campaign in Europe to attract new immigrants and so on. To help promote a sustainable agricultural sector, the federal government established the first experimental farms in 1885 (Drummond, Anderson and Kerr, 1966; p.16). In addition, separate grades for western wheat based on visual distinguishability were first defined in 1886. To further enhance the quality of Prairie grain, the grading of seed for commercial sale was made mandatory in 1923, establishing the principle of varietal licensing—that is, the testing of all new varieties before being licensed for sale (Irvine, 1982; p.56).

Concern about the competitive position of producers in production and marketing Prairie grain was a constant issue from the beginning of the settlement and agricultural development of the west. The major components of the regulatory part of western grain policy were implemented in the period up to 1955. They are summarized as follows.

Transportation Regulation (Alberta, 1980)

- ! The Crow rates on eastbound grain and flour were fixed 'in perpetuity' in 1897. These were gradually extended to nearly all Prairie crops and to westbound export destinations over time.
- ! Producers received the right to load grain rail cars directly in 1900.
- ! Regulation of car allocation was implemented in 1902.
- ! Federal and Manitoba government subsidies were used to build additional transcontinental railways over the period 1901-14.
- ! As the new railways went bankrupt, they were consolidated by the federal government in 1919 into the Canadian National Railway (CNR).

Handling Regulation

- ! The federal Manitoba Grain Act of 1900 provided for the licensing of grain elevators, mills and grains merchants as well as providing for the investigation of farmers' complaints about grading and dockage (Wilson, 1979).
- ! The Board of Grain Commissioners, the forerunner of the Canadian Grain Commission, was established in 1912 (Wilson, 1979).
- ! Primary and transfer elevator tariff regulation was instituted in 1917 and extended to terminal elevator tariffs in 1931 (CGC, 1986).

Marketing Regulation (Wilson, 1979)

- ! Open market trading for wheat and flour was suspended in 1917-18 due to World War I.
- ! The first Canadian Wheat Board operated from 1919 to 1920 until international grain markets returned to normal pre-war conditions.
- ! With the onslaught of the depression, the federal government guaranteed bank loans of the three Prairie Pools beginning in late 1929. The Pools were established as producer-owned organizations to market wheat directly and pool or average returns to members over the crop year.
- ! The Canadian Wheat Board (CWB) was re-established in 1935 to sell wheat along side the open market.
- ! Delivery quotas were introduced by the CWB to ration access to scarce elevator space after the large 1940 crop. The original purpose was to provide an equitable sharing of delivery opportunities for all producers.
- ! In support of wartime wage and price controls, the CWB was given the sole authority for both domestic and export marketing of Prairie wheat in 1943.
- ! Following the passage of complementary legislation in each of the three Prairie provinces, the Board was given similar authority over oats and barley in 1949.
- ! In order to facilitate the CWB's annual sales program, the Board was given control over car allocation in 1955.

From the mid-1950s on, three trends have been evident regarding western grain policy. The first has been the growth of provincial intervention in agriculture following the implementation of the major recommendations of the 1937-40 Rowell-Sirois Commission. Established to examine the problem of the federal and provincial fiscal capacities during the depression, it resulted in a major federal transfer of fiscal capacity to the provinces. The longer term consequences included:

- ! Increased provincial spending on economic diversification in general and on agricultural development in particular;
- ! A relative reduction in the federal role in the agriculture sector and increased federal-provincial conflicts over agricultural policy.⁴

Second, with the full development of regulatory policy with respect to the handling, transportation and marketing of Prairie grain, concern shifted to the need for improved production and market risk protection programs—the so-called 'safety net' programs. Moreover, the development and implementation of the larger social safety net implied the need to provide agriculture with some degree of protection as was provided to other sectors through such programs as unemployment insurance. The origins of both stabilization and income support programs, including protection of the agricultural land base, date to the 1930s (Drummond, Anderson and Kerr, 1966; pp.41-43). These programs were expanded in scope with higher levels of government support from the mid-1950s on:

- ! The 1957 Prairie Grain Advance Payments Act provided cash advances to producers of CWB grains when delivery quotas restricted grain deliveries. The cash advance program

⁴ Much of this short discussion on Rowell - Sirois and its aftermath come from conversations with Doug Hedley of Agriculture and Agri-Food Canada.

was extended shortly thereafter to other crops on a national basis via the Advanced Payments for Crops Act.

- ! The 1958 Agricultural Stabilization Act (ASA), applying mainly to eastern crops but including livestock nationally, provided systematic price support mandated by a formula contained in legislation.
- ! The federal Crop Insurance Act (1959) provided federal funds to provinces that wished to establish yield protection programs. It also made provision for cost-sharing provincial fund deficits between the two levels of government. The Crop Insurance program was mainly funded by producers and the federal government until substantive federal-provincial cost-sharing changes were implemented in 1989.
- ! The passage of the Western Grain Stabilization Act (1975) provided a federal-producer funded market risk protection program comparable to that established earlier for crop producers in eastern Canada under ASA (Gellner, 1991).

Changes in the 1981 and 1985 U.S. Farm Bills resulted in significant declines in world grain prices by the mid-1980s. The initial response of the federal government was to ride out the decline in prices by attempting to maintain producers' incomes. The Special Canadian Grains Programs of 1986 and 1987, costing over \$2 billion in total, convinced the federal government that it could no longer retain the sole responsibility to provide income support to the grain sector.

- ! The 1988 Canadian Crop Drought Assistance Program was cost-shared with the provinces on a limited basis, nonetheless establishing the principle of federal-provincial cost-sharing to provide market risk protection for grains.
- ! In 1989, major revisions to the Crop Insurance program rebalanced federal-provincial contributions to the program. Henceforth, each level of government would contribute 25 percent each of program costs with producers contributing the remaining 50 percent.

This tripartite cost-sharing principle was subsequently extended to the new stabilization programs implemented in 1991—the Gross Revenue Insurance Program (GRIP) and the Net Income Stabilization Account (NISA) program.⁵ GRIP brought an end to the regional, if not commodity-specific, market and yield risk protection programs. While it began with a high level of support, it was designed to reduce the level of government financial support over time. Moreover, GRIP allowed governments to bring to an end the costly ad-hoc grain subsidy programs begun in 1986.

NISA was intended to provide whole-farm income support, both in recognition of the new constraints being proposed under a revised GATT and the need to maintain regional and commodity equity in domestic support programs.

The third trend that has been evident since the mid-1950s has been the reduction in western grain regulatory policy, due to both domestic equity reasons and the need to change or remove regulations inhibiting the competitiveness of Prairie agriculture.

- ! In 1957, in response to complaints from the grain trade about the manner in which the CWB was allocating grain cars, total CWB control over car allocation was reduced.

⁵ Canada. *Agricultural Policy Review Report to Minister of Agriculture: Grain and Oilseed Safety Net Committee*. Ottawa: Agriculture Canada, August 1990.

Henceforth, other parts of the marketing system were included in the task of administering car allocation (Wilson, 1979; pp.250-259).

- ! A major overhaul of the CWB's quota delivery system occurred in 1970 in order to put more emphasis on efficiency and less on ensuring equity in delivery opportunities to all producers of Board grains (Wilson, 1979; pp.238-241).
- ! During the period 1974-76, the CWB monopoly on domestic sales of western feed grains was removed in response to complaints from eastern Canada about the Board's pricing of feed grains in the eastern market (Wilson, 1979; p.103).
- ! By the 1960s, the fixed Crow rates for moving grain off the Prairies were failing to cover the railways' costs, resulting in a significant reduction in railway investment in grain transportation infrastructure. The federal government undertook substantial expenditures throughout the 1970s and early 1980s on branchline subsidies and rehabilitation, hopper car purchases and boxcar repairs. Moreover, some branchlines were abandoned over the period 1973-78 with a basic Prairie rail network defined and frozen until the year 2000. A process was put in place to deal with the remaining lines outside the basic network, but it resulted in little if any significant pruning of the rail network after 1978 (Alberta, 1980; pp.24-28).
- ! By the early 1980s, mounting railway losses on grain traffic were preventing needed investments in mainline rail capacity, thereby threatening exports of other bulk commodities. Moreover, the increasing distortion in Prairie grain prices caused by the Crow rates was inhibiting value-added diversification of Prairie agriculture (Gilson, 1982). The Report of the Gilson Consultations recommended that the federal government should fund the railway losses—shared with producers over time—and that these funds should be paid to producers in exchange for the introduction of full cost freight rates on grain rail traffic. On January 1, 1984, the Western Grain Transportation Act (WGTA) replaced the Crow rates. It established the Grain Transportation Agency to monitor system efficiency and to lead the car allocation process. In addition, the WGTA directed that the federal government subsidy be paid to the railways, thereby keeping Prairie grain prices artificially high and inhibiting livestock production and value-added grain processing.
- ! Oats was removed from CWB control in 1989 in response to complaints from producers about the performance of the Board in marketing this crop.
- ! In 1992, delivery quotas on non-CWB crops were removed. At the same time, the federal government removed by Order-In-Council the Board's monopoly on barley sales into the U.S. The government was taken to court over the way in which it instituted the change and its decision to open the border to non-Board sellers of barley was overturned.⁶
- ! Maximum terminal elevation tariffs were removed in 1994.

⁶ For a review of the economic debate on a continental barley market, cf. Michele Veeman, "A Comment on the Continental Barley Market Debate," *Canadian Journal of Agricultural Economics*, Vol. 41, 1993: 283-87.

COMPONENTS OF WESTERN GRAIN POLICY

The prairie grain industry is a mixture of government, regulatory, private sector and producer cooperative activity. Some of the basic industry structure is summarized in an appendix. This section reviews some of the major policy instruments that exist today before moving to the important 1995 federal budget changes reviewed in the last section.

Western Grain Transportation

The Western Grain Transportation Act (WGTA) regulates the transportation of the Prairies of western grains, oilseeds, special crops and eligible products either for export or eastern domestic consumption. The current WGTA freight rate structure is essentially a distance and weight-related scale that averages total grain rail costs over all delivery points. It takes no account of the differential rail costs for grain originating on branch versus main lines. As a result, for delivery points located the same distance from export position (Vancouver or Thunder Bay), grain producers pay about the same rate per gross tonne-mile, regardless of whether the delivery point is located on a branch or main line or whether the movement is west or east bound.

Nearly all grains grown in the CWB designated area (Peace River area of BC plus the three prairie provinces), including peas, beans and lentils as well as processed grain and oilseed products such as canola oil and meal and dehydrated alfalfa, are eligible for this support. Appendix B contains a list of eligible commodities as of early 1995.

Under the WGTA, the freight rates are set each crop year based on the forecast grain volumes (provided by the Grain Transportation Agency) and the estimated costs to the railways of moving the grain to port position (as calculated by the National Transportation Agency). Freight rates have shown no increase in recent years, in spite of modest inflation in the Canadian economy as a whole. However, shippers have been paying an increasing portion of the rail costs. This is largely because shippers are responsible for the additional costs of any increase in the volume of grain moved, but partly due to a reduction in overall government funding. A review of the railway costs of moving grain is undertaken by the NTA every four years.

In the 1994/95 crop year:

- ! Railway costs for the carriage of WGTA commodities are estimated at nearly \$1.1 billion.
- ! Shipper (or producer) and the government shares are 48.5% and 51.5% respectively.
- ! For a haul of 976-1000 miles, the total rate is \$29.42, of which the producer pays \$14.27/tonne and the government pays \$15.15/tonne.

Car Allocation Policy and Procedures

The railways are responsible for the actual movement of grain from the inland points to the ports. The two major railways are Canadian National (CN) and Canadian Pacific (CP). There are also several other very small rail companies (mostly short line operations).

However, neither the railways nor the commercial customers of the railways have the ability to allocate cars to move grain off the Prairies. Instead, car allocation is done through a complicated system administered by the Grain Transportation Agency (GTA), the Canadian Wheat Board (CWB) and the Canadian Grain Commission (CGC) in conjunction with the railways and the private grain trade.

For car allocation purposes, there are two main classifications of grain. Administered grains are wheat, barley, oats and canola. These are controlled and allocated by the GTA, the CWB and, in the case of "producer" cars,⁷ the CGC. All other crops (e.g., rye, flax and specialty crops) are non-administered and their movement is negotiated directly between the railway and the shipper.

Role of the GTA The GTA is responsible for allocating cars to grain dealers and companies for canola, oats, and non-Board feed (NBF) grains. The primary purpose of the GTA is to ensure that grain from western Canada is moved in an efficient, reliable and effective manner. The GTA allocates rail cars on a sales basis when there are no system constraints. If the destination is Thunder Bay (TB), a terminal authorization is required before the GTA will allocate a car. For West Coast movement, the GTA requires a proof of sale or verification and a vessel for loading. Once the companies receive their allocation from the GTA, it is up to the individual companies to decide where to spot their cars, although this is usually coordinated with the CWB movement to enhance the overall efficiency of the system.

Role of the CWB The CWB is responsible for allocating cars to grain dealers and companies for Board wheat and barley as well as establishing weekly train runs to move grain off the Prairies. The CWB allocates rail cars to companies for malt barley and milling wheat sales first (i.e., direct-sale cars) and then allocates other Board grain cars. The Board's allocation of rail cars is based on companies' average handling percentage. These weighted average handling percentages are based on weekly receipts over the previous 52 shipping weeks. The most recent deliveries are given more weight in order to encourage a more performance driven system.

Entitlement Under Constraint When there are system constraints, an attempt is made to treat all participants and destinations equally. The GTA allocates the non-Board movement first and the CWB develops their shipping program on the cars remaining. Under a constrained system, Board and non-Board demands receive an allocation equal to their proportion of total sales. In times of constraint, priorities for car allocation on train runs are set according to the following: (i) non-Board cars, (ii) producer cars (CGC), (iii) malt barley and milling wheat cars (direct sale cars), (iv) space cars (CWB) and (v) other CWB cars.

⁷ Producer cars are grain cars secured through the Canadian Grain Commission and loaded by producers. They have major historic significance in the evolution of grains policy on the prairies.

Branch Line Abandonment Policy

Almost all of the Prairie rail network, plus the Peace River area of British Columbia, is protected from abandonment until the year 2000 by a series of prohibition orders issued between 1974 and 1984. While some orders have expired and others have been amended to delete specific branch lines or segments, over 15,000 miles of the prairie rail network including main lines and branch lines are still contained within the prohibition orders.

For Prairie rail lines, the abandonment process is a two-step application process in which the railway must first apply to Transport Canada for removal of the branch line from the prohibition order. After removal is granted, the railway must then file notice of intent to apply for abandonment of the line with the NTA. At least 90 days must elapse after the notice before filing the application to abandon the line unless the Agency considers it in the public interest to abridge the time period or allow application without notice.

From mid-1977 through 1983 rationalization of Prairie grain-dependent branch lines proceeded at about 300 miles per year. Since implementation of the WGTA on January 1, 1984 the rate of abandonment of grain lines has declined to about 100 miles per year. Rail line abandonment has been a difficult process.

Canadian Wheat Board (CWB)

The Canadian Wheat Board is established under the Canadian Wheat Board Act. The Board has the sole marketing authority over wheat and barley produced in the CWB area for domestic human consumption and their export, and imports of both food and feed wheat and barley. For the 1992/93 CWB Crop Year:

- ! 130,086 CWB delivery permits were issued to western Canadian producers
- ! The Board purchased 22,820,299 of wheat, 3,371,021 tonnes of amber durum wheat, and 4,246,977 tonnes of barley from western producers.
- ! The average value per tonne of wheat was \$149.14, the average value of amber durum wheat was \$154.50 per tonne, and the average values of feed barley and designated barley (for malting, pot or pearling) were \$108 and \$156 per tonne respectively.
- ! Total Canadian exports of wheat were 20,155,000 tonnes (including amber durum) and exports of barley and barley products were 3,036,000 tonnes.

Canadian Wheat Board Price/Cost Pooling The CWB pools costs and revenue for Board grains for each of the classes and grades of grain handled by the CWB. The CWB establishes jointly with the Government of Canada an initial price at the beginning of each crop year for each class of grain. This price for a grain is applicable at each of the two pooling points, Thunder Bay and Vancouver.

On delivery to a country elevator in the CWB area, the farmer receives the initial price less the transportation rate to the nearest pooling point and less elevation charges plus any costs associated with the cleaning or conditioning of the grain. The transportation cost deducted from the initial price received by the farmer is the producer share of the regulated WGTA rate for the movement of the grain to the nearest export position.

The CWB price pooling is a mechanism by which:

- i) timing of sales are pooled;
- ii) sales opportunities are pooled;
- iii) infrastructure constraints are shared; and
- iv) costs incurred by the CWB are shared.

CWB price pooling was not intended to pool quality of grain among producers. As the grains are separated into separate pool accounts, there is separation of costs and revenue between grains and grades of grains. It is explicit in the CWB Act that producer receipts by grade from the Wheat Board pool accounts should thus reflect the relative economic value of that grade from sales throughout the pool account selling period. Moreover, CWB price pooling was not intended to pool location of production. Producers nearest to the export terminals receive the highest net prices for their grain relative to equal export positions.

The Canadian Grain Commission Quality Control System

As set out in the Canada Grain Act, the Canadian Grain Commission has the responsibility to establish and maintain standards of quality for Canadian grain and to regulate grain handling in order to ensure a dependable product for domestic and export markets. This is achieved through a series of regulatory, monitoring and certification steps.

Varietal Control All varieties that enter the commercial grain-handling system for sale in the high quality categories must be registered by Agriculture and Agri-Food Canada (AAFC). The varietal quality control system ensures that only those varieties with the appropriate level of quality and specific quality characteristics for that class can be registered and are eligible for the top grades of grain. In the case of the Canadian Western Red Spring (CWRS) and Canadian Western Amber Durum (CWAD) classes of wheat, varieties can only be registered if they are shown to be equal to or superior in quality to named variety standards in terms of agronomic performance, disease resistance and quality characteristics. Committees, comprised of plant breeders, agronomists, plant pathologists and quality experts, assess new varieties and decide whether to support the application for registration made by the breeders. Once registration has taken place, seed growers, under the supervision of AAFC, then grow the breeder seed to produce *select* seed. The seed multiplication process continues until there is sufficient seed for sale to farmers.

The Grading System and Visual Distinguishability Canada's grading system employs the principle of Kernel Visual Distinguishability (KVD) which means that specific visual kernel characteristics are reserved for each class of wheat. In order for a new variety to be registered for a specific class, it must have both the visual appearance and the appropriate quality characteristics reserved for that class.

Grades are the means of characterizing grain quality rapidly and reliably to meet the demands of the handling, transportation and marketing systems. Grade profiles must be practical and meaningful to the entire industry and there must be a correlation between grade specifications and end-use quality. Grades are established under the authority of the Canada Grain Regulations and are assigned on the basis of measured tolerances and specifications.

Quality Control At the Elevators The CGC's quality control system comes into effect as soon as grain is delivered to the primary elevators, which are licensed by the Commission. CGC assistant commissioners regularly inspect all licensed elevators and may also order clean-ups and fumigation as required. These assistant commissioners investigate and report on infested or contaminated grain, the delivery of unregistered varieties of grain, and farm drying of damp grain.

From the primary elevator, the grain is shipped to a licensed terminal elevator. Again, licensing of these elevators by the Grain Commission ensures control of the procedures to weigh, grade, clean and document ownership of the grain, and to maintain the good condition of the grain. When a car of grain arrives at the terminal elevator, Commission personnel verify the condition of the car, then supervise the weighing of the grain into the terminal, sample and inspect it and assign it a grade, so that it can be binned with grain of like quality in the terminal. Before the grain leaves the terminal, it must be conditioned to meet export standards. As the grain is discharged from the terminal, it is continuously sampled and graded, and officially weighed. Composite samples of the cargo are then prepared and closely examined before official cargo certificates are issued. If there is any indication of accidental admixture with grain that has been treated with toxic chemicals, the parcel of grain must immediately be segregated.

Safety Nets

Safety net programs refer to stabilization and insurance programs. The federal legislative mandate for these programs is the Farm Income Protection Act (FIPA). It is principally an enabling Act to allow the Governor-in-Council to authorize the Minister of Agriculture to enter into agreements with one or more provinces to establish a net income stabilization account program, a gross revenue insurance program, a revenue insurance program or a crop insurance program. The Act sets out what things must be included in an agreement; however for the most part it does not specify how those items must be dealt with in the agreement. A section of FIPA deals with special measures and allows for action to be taken outside the scope of a program established by an agreement when exceptional circumstances exist.

Net Income Stabilization Account (NISA) NISA is designed to help producers achieve long term improved income stability. Producers deposit funds into their own NISA account and receive a matching contribution from the federal and provincial governments. These funds accumulate in the NISA account earning interest at competitive rates. As well, producer deposits attract a 3 percent interest bonus paid jointly by the federal and provincial governments. In years of declining income, producers can draw on their own NISA account. As long as they have built up a substantial stabilization account, they are assisted in effectively managing fluctuations in farm income. NISA is available in all ten provinces.

For the 1993 stabilization year, sales of grains and oilseeds, special crops and edible horticultural crops were eligible for matching contributions from the federal and provincial governments. Other commodities such as apples, honey and tobacco were covered in some provinces. Supply-managed commodities and red meats were not eligible for NISA although

it is expected that with the phasing out of National Tripartite Stabilization Program (NTSP), red meats will become eligible for the 1994 taxation year. In 1992, there were 135,524 participants in the NISA program. The total value of federal government contribution was \$64,844,643. This federal contribution was forecast to be \$77,363,319 for 1993.

Gross Revenue Insurance Program (GRIP) GRIP offers protection for grains, oilseeds and special crops against reduced revenue arising from either natural hazards and/or market risks that are beyond the control of producers. The program began in 1991 and, in many ways, can be considered as an enhancement of the Crop Insurance program. GRIP is funded by producers, provincial government and the federal government. Although the program is national in scope, the provinces, as financial contributors to the program, have flexibility in the administration and delivery of the program.

With the exception of the provinces of Saskatchewan and Quebec, GRIP insures a target revenue at the individual farmer's level. Payments are calculated as the difference between a producer's target revenue for a crop and the market revenue for the crop less any crop insurance payments. Insurance payments are issued to individual farmers independently of the situation of their neighbours. Support prices are set using a moving average of historical regional prices over a fifteen year period. This moving average is indexed using a farm input price index to capture the effects of yearly changes in production costs.

Federal premium contributions to GRIP totalled \$468.49 million in 1993/94 with a further \$11.93 million being spent on federal administration costs. These numbers are expected to be \$414.25 million and \$10 million respectively for 1994/95.

The actual support from GRIP has been declining as the high prices from the 1970s are dropped from the support price calculation. It is worth noting that Saskatchewan, the largest grain-producing province, will not participate in GRIP after the current crop year ends July 31, 1995. In addition, Alberta has also indicated its intention to withdraw from GRIP.

Crop Insurance Crop Insurance is a voluntary program which provides insurance against crop losses resulting from natural hazards. Crop Insurance premiums are based on long-term historical losses. In most provinces, producers with above or below average loss experience are charged lower or higher premiums to reflect their individual loss experience. All premium rate calculations are certified by an actuary. The federal and provincial governments each contribute 25 percent of the total premiums; producers pay the other 50 percent.

Under Crop Insurance, producers are guaranteed a certain number of tonnes for each insured crop. This production guarantee is dependent on either the individual's or risk area's long-term average yield with adjustments for soil zones and a producer's yield performance. If actual production is less than the insured production, the Crop Insurance payment is equal to the yield difference multiplied by the insurance price. The insured price will be either an estimate of expected market prices that is established at the beginning of the crop year, or the producer can purchase an option to use the actual market price in the Crop Insurance calculations.

1995 FEDERAL BUDGET

In the fall of 1994, the federal Minister of Agriculture and Agri-food announced that the government planned to reform the WGTA early in 1995 for the following four reasons.

- ! The WGTA continued to promote the export of raw grain off the Prairies by inhibiting the livestock sector and value-added grain processing.
- ! The new GATT accord implies a reduction in the allowable volumes of grain, beginning in 1996, that could be moved for export under the WGTA via west coast and Churchill ports.
- ! The WGTA was a major impediment to a faster pace of change in order to reduce costs in the handling and transport system.
- ! It was necessary to include the WGTA subsidy as part of the planned federal expenditure reductions in order to meet the government's deficit targets.

The February 27, 1995 federal budget brought down major changes in agricultural policies, especially, but not solely, affecting some of the major elements of western grain policy.

Transportation, Handling, Marketing

- ! The annual federal subsidy to grain transportation, currently amounting to \$560 million under the WGTA, will be terminated August 1, 1995 with grain shippers to pay full-cost freight rates thereafter.
- ! In place of the subsidy, the government will make a one-time payment of \$1.6 billion to Prairie agricultural land owners as compensation for the resulting decline in land values. This payment will be taxed as capital rather than income, effectively increasing its value to about \$2.2 billion.
- ! Maximum legislated freight rates will be retained until the year 2,000 after which this rate regulation will be removed unless a review were to conclude otherwise.
- ! The CWB pooling points will be revised August 1, 1996, after industry consultation on a new proposal by the CWB, expected in April 1995.
- ! The Grain Transportation Agency will be eliminated August 1, 1995 with industry jointly assuming the responsibility to improve system efficiency and to modernize and conduct the car allocation function.
- ! The current rules for abandoning Prairie branchlines effective January, 1996 will be replaced with the streamlined process under the National Transportation Act covering rail line abandonment in other areas of Canada. An analysis of the least efficient lines will be completed by November 1, 1995 with all protection against their abandonment to be removed by December 31, 1995.
- ! An adjustment fund beginning in 1996-97 fiscal year and totalling \$300 million over six years will be available to offset negative impacts on producers from future branchline abandonments, CWB pooling change, roads impacts, and related factors.
- ! The federal government will provide a \$1 billion credit guarantee on export sales of domestically produced crops.

Safety Nets

- ! There will be a reduction in federal safety net expenditures from their current level of \$850 million to \$600 million by 1996-97.
- ! Total federal and provincial safety net expenditures will decline to \$1 billion per year by 1996-97 following an earlier agreement between the federal government and the provinces on cost-sharing stabilization programs.

OBSERVATIONS AND POTENTIAL POLICY TRENDS

The mix of western grain policy instruments continues to comprise two main parts: regulatory policy and stabilization/income support programs based on direct financial assistance. The various components of both parts were developed over time, generally as specific policy responses to correct particular problems as they arose.

Regulatory policy towards western grain, put in place over seventy years from 1886, has tended to decrease slowly, unevenly and yet, seemingly inexorably, since the mid-1950s. Three reasons would seem to account for the move away from tight regulatory control.

- ! The scope of regulatory control over the western grain industry has been revised or reduced in response to the need to remain competitive, especially in international markets.
- ! Domestic equity reasons, among western grain producers, between producers and other parts of the grain marketing system and across commodities and regions have resulted in regulatory reform.
- ! Recent trade agreements such as CUSTA, NAFTA, and the newly implemented GATT have placed greater restrictions on the scope of domestic policy.

Safety net policy, on the other hand, likely came into its own starting in the late 1950s for somewhat different reasons.

- ! Regulatory policy, in and of itself, could not provide sufficient protection against market and/or yield risk.
- ! Equity between agriculture and other sectors implied the need for similar protection for agriculture as was being introduced more widely, such as unemployment insurance, as part of the development of the overall social safety net.

Safety net policy has tended to undergo even more rapid change than regulatory policy over the past decade. The most recent move away from high levels of support and commodity-specific programs in favour of whole farm support, through expanding the relative importance of NISA, has been the result of both domestic equity concerns in agriculture and the need to make programs more acceptable internationally. Concomitantly, the need to reduce federal and provincial spending has played a major role in reducing support levels, similar to the reduction, if not complete elimination, of the grain trade war.

The 1995 federal budget represents a major change in the direction of agricultural policy-away from government control of, and high income support for, the sector in favour of policies both that remove disincentives to growth in value-added production and job

creation and that foster producer and industry adaptability to changing market conditions. Hence the agriculture part of the budget is consistent with the government's goal for social policy reform.

Future policy trends will likely be driven by the same underlying conditions that led to the policy changes in the recent federal budget. Government deficit and debt reduction will continue to exercise a major influence on policy, including agricultural policy. Also, the prospect is for continued trade liberalization, likely including further reductions in agricultural trade-restricting policies in subsequent GATT accords, the possible extension of NAFTA, first to Chile and subsequently to the entire hemisphere, and freer trade among Pacific rim countries.

These likely will imply continuing and substantial agricultural policy reform, especially as it affects the western grain sector:

- ! continuing development of whole-farm versus commodity-specific market risk protection programs;
- ! on-going reduction and streamlining of grain transportation regulations, including a more market-driven car allocation process and less reliance on grain freight rate regulation;
- ! possible changes in the grading and quality control system to remove those aspects that might be viewed as barriers to trade;
- ! continuing pressure to move towards continental free trade in grains;
- ! potential changes in the functions assigned to the Canadian Wheat Board;
- ! in general, further policy development to assist producers in adjusting more easily to short and long term shifts in the market place, implying an on-going trend away from regulatory control of the western grain industry.

BIBLIOGRAPHY

- Alberta. *A Discussion Paper on Current Issues, Issues in Grain Handling and Transportation*. Edmonton: Alberta Economic Development, Alberta Agriculture, circa 1980.
- Canada. *Agricultural Policy Review Report to Minister of Agriculture: Grain and Oilseed Safety Net Committee*. Ottawa: Agriculture Canada, August 1990.
- Canada. *Canadian Grain Commission Historical Fees and Tariffs*. Winnipeg: Economics and Statistics Division, Canadian Grain Commission, August 1986.
- Drummond, W.M., W.J. Anderson and T.C. Kerr, *A Review of Agricultural Policy in Canada*. Agricultural Economics Research Council of Canada. Ottawa: Government of Canada, June 1966.
- Gellner, Jack, "The Evolution of the Net Benefits Concept", *Canadian Journal of Agricultural Economics*, Vol. 39, 1991.
- Gilson, J. C. *Western Grain Transportation Report on Consultation and Recommendations*. Ottawa: Supply and Services Canada, June 1982.
- Irvine, N.G., *The History and Evolution of Western Canadian Wheat Grading and Handling System*. Canadian Grain Commission. Winnipeg: Government of Canada, May 1982.
- Wilson, Charles F. *Grain Marketing in Canada*. Canadian International Grains Institute. Winnipeg, 1979.

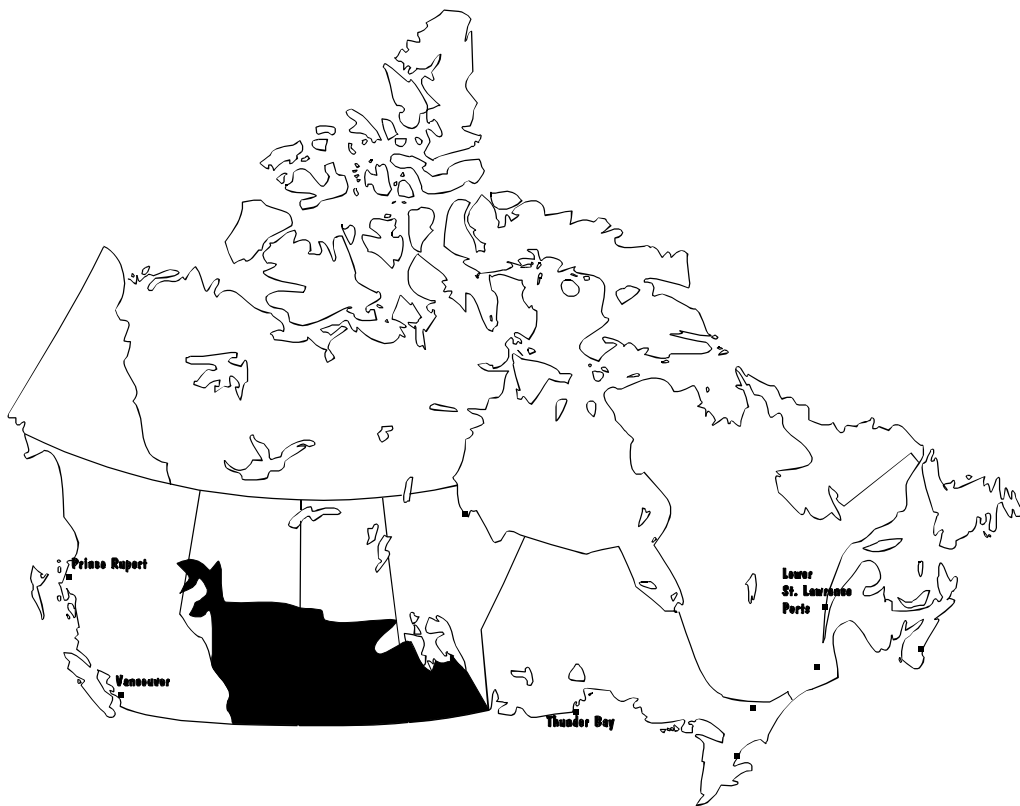
APPENDIX A

OVERVIEW OF THE WESTERN GRAIN PRODUCTION AND HANDLING AND TRANSPORTATION SYSTEM (GHTS)

Chart 1 shows a map of Canada, indicating the ten provinces plus the Yukon and Northwest Territories. The shaded area represents the grain growing area of the Prairies, also referred to as the Canadian Wheat Board (CWB) designated region. This region of Manitoba, Saskatchewan, Alberta and the Peace River area of British Columbia comprises the largest grain producing region in Canada. On average, it produces about 50 million tonnes of grains, oilseeds and special crops each year. Wheat, barley and canola currently comprise about 90 percent of production. About 60 percent of this production is exported each year. Export figures vary significantly by crop. For example, in the last ten years, average exports as a percent of production were:

- wheat : 76%
- rye : 48%
- barley : 36%
- oats : 7%
- canola : 52%
- flax : 75%

Chart 1. Grain Growing Area of Western Canada



There is fundamental distinction made in the western grain industry between three types of grain. *Board grains* include all wheat and barley grown in the designated region and exported by the CWB plus all food wheat and food barley marketed domestically. Board grains typically account for over 60 percent of the total moving through the GHTS, mainly for export with a small amount for eastern domestic consumption. *Off-Board* grains include feed wheat and feed barley grown in the region and marketed through the open market system to the domestic livestock sector. *Non-Board* are all other types of grains grown on the Prairies, including oats, rye, canola, flax and special crops (pulses, mustard seed, canary seed, etc.). These crops are marketed by private and cooperative (producer-owned) grain companies and individual producers on the open market.

Storage/Elevation

It is difficult to separate storage and elevator facilities in Canada's grain handling and transportation system (GHTS). As such, storage and elevator facilities are dealt with as one component in this section.

On-Farm Storage There are no reliable statistics on the actual storage capacity available on Canadian farms. The difficulty of capturing these data is a function of the various types of storage facilities found on farms which can range from steel bins to simply storing grain in barns, etc. One proxy of the storage capacity on farms is the stocks of grain on farms reported by Statistics Canada. As of December 31, 1994 there were 47.5 million tonnes of grain on Canadian farms and 42.1 Mt in Western Canada.

Grain Elevators (Primary) These elevators receive grain from farmers, establish a grade for the grain, give financial settlement to the farmers, store the grain, blend grain grades and load grain onto rail cars.

Over the past ten years, the primary elevator system has rationalized considerably and improved its throughput capability. Based on statistics from the Canadian Grain Commission, the number of operating units has declined from 1967 in 1984 to 1409 in 1994, or about 28 percent. Total storage capacity has decreased from 8.0 Mt in 1984 to 6.7 Mt in 1994. All primary elevators are located in western Canada.

While the number and capacity of primary elevators has been decreasing, total throughput and average turnover have been increasing. For example, between 1984/85 and 1993/94 total throughput increased by almost 30 percent and the turnover ratio increased by 50 percent.

Grain Elevators (Transfer and Process) The main use of transfer elevators is to transfer grain that has already been officially inspected and weighed at another elevator. In eastern Canada, they also receive, clean and store eastern or foreign grain. Process elevators, on the other hand, are used to receive and store grain for direct manufacture or processing into other products.

Grain Elevators (Terminal) Terminal elevators unload grain arriving in rail cars from primary elevators, clean and grade the grain to Canadian Grain Commission standards, store it and subsequently load it for shipments to domestic and export markets.

As of August 1, 1994 there were 18 terminal elevators across Canada with a total capacity of 3.3 Mt. Most export grain in Canada passes through the ports of Vancouver and Prince Rupert on the Pacific Coast or Thunder Bay via the Great lakes to the Atlantic.

Utilization of the Pacific coast terminals has increased considerably over the period from 1983/84 and 1993/94 while throughput through Thunder Bay and Churchill has actually declined. This shift has mainly occurred because of the changes in markets for Canadian grain with more emphasis being placed on Pacific Rim destinations. This trend is expected to continue.

Cleaning

Generally, grain is cleaned to improve the grade before or after purchase from the producer, to clean seed for the producers or to meet the specifications for domestic customers. In the Canadian grain industry all grain to be exported has to be cleaned to export standards. While some of the larger primary elevators have machinery for cleaning grain, most of Canada's grain is cleaned at terminal elevators. The result of the cleaning, usually described as dockage or screenings, are processed and used for animal feed, often shipped back to the prairies.

Transportation

Trucking Truck transportation is used for several components of the Canadian grain handling and transportation system. First, trucks are used to move grain from the farm gate to the primary elevator. This typically involves a haul of 10-20 miles using a farmer-owned straight truck.

A small but growing portion of shipments to primary elevators (5%) are handled by commercial trucking operations where the payload capacity is higher, typically in the 23-27 tonne range. Trucking also fills other (longer-haul) roles in the grain handling and transportation system. Typical hauls are 50-200 miles for transportation of CWB grains to inland terminal elevators, feedlots and processing plants. Distances are somewhat higher for transportation of canola and specialty crops, often in the 300-400 mile range.

Overall the Canadian trucking industry is a deregulated industry with no provincial or federal controls on extra-provincial trucking. Beginning in 1976, the federal government committed itself to the deregulation of the trucking industry that was eventually expressed in the 1987 Motor Vehicle Transport Act that was tabled alongside the National Transportation Act. This Act deregulated inter-provincial and international trucking with respect to market entry/exit and tariffs.

The provinces however, have power over intra-provincial trucking. While the trucking industry faces no federal regulation, the industry is very concerned over the

excessive operational regulations they face in each province. In particular, through the Motor Vehicle Transport Board in each province, some provinces continue to have a highly regulated trucking system.

Rail Rail transportation is used throughout the Canadian grain handling system. Specifically, rail transportation is used to transport grain:

- ! From the primary elevator system to terminal elevators in Vancouver, Prince Rupert, Churchill and Thunder Bay. The average distance for these shipments is approximately 1,050 miles;
- ! Direct from the farmer to terminal elevators in producer cars. Average distances are in the 1,050 mile range;
- ! From Thunder Bay to transfer elevators along the Great Lakes/St.Lawrence Seaway System. Shipment distances for transfer moves fall in the range of 1,050-1,875 miles;
- ! From Thunder Bay to domestic customers in eastern Canada with distances typically falling in the range of 1,000-2,000 miles;
- ! From primary elevators to domestic customers in eastern and western Canada. Distances for these shipments vary widely, but generally fall in the range of 500-2,000 miles; and
- ! From primary elevators to export markets in the United States. Distances for these moves vary widely, but generally fall in the range of 500-2000 miles.

The basic prairie rail network consists of 15,200 miles of rail line, virtually all of which is currently protected from abandonment to the year 2000 under Prohibition Orders. Approximately 55 per cent of this track is owned by CN North America (CN) and 45 percent by CP Rail System (CP). In addition, the British Columbia Railway (BCR) hauls grain from the Peace River district. There are also two shortline railways (Central Western Railway and Southern Rail Cooperative) that operate a total of 287 miles of track.

About one-third of prairie rail lines are classified as main lines or secondary main lines, while the remainder are branch lines. Of the branch lines, 6,102 miles are designated as grain dependent for crop year 1994/95 (2,880 miles for CN and 3,222 miles for CP). These lines are determined annually by the NTA and the primary factor that establishes grain dependency is that the grain tonnage originating or terminating on the line is at least 60 per cent of all tonnage based on an average of the three preceding years.

Grain dependent branch lines account for about 40 percent of the total rail network. The operating capacity on approximately 800 miles of grain dependent lines is a limiting factor which has implications for cost efficiency. Lines with low operating capacity require that cars be only partially loaded, or be operated at slower speeds.

Currently, there are approximately 29,000 rail cars in grain service. A large component of the fleet is comprised of hopper cars purchased by the federal government, the provincial governments of Alberta and Saskatchewan and the Canadian Wheat Board (CWB). During the 1972-85 period, the federal government purchased 13,120 hopper cars at a purchase price of \$560 million and acquired another 2,000 cars under a long term lease. The governments of Alberta and Saskatchewan purchased 1,000 cars each in 1981 and the CWB acquired 2,000 cars in 1979. These cars are dedicated to the movement of grain and are provided free to CN and CP, with the railways being responsible for all maintenance

costs, which are included in the WGTA cost base (i.e., the railways recover maintenance costs through the freight rates).

To meet peak movement demand, both railways supplement the government and CWB fleet with their own hopper cars. These cars consist of railway-owned equipment and/or short and long term leases, primarily from the United States. CP Rail operates boxcars for grain service on light density rail lines, while CN only uses boxcars to Churchill and to Thunder Bay and only when they are short of rail capacity.

Great Lakes/St. Lawrence Seaway System Approximately 85 percent of the grain passing through Thunder Bay is carried by lake vessel to transfer elevators on the lower St. Lawrence and then shipped on ocean-going vessels. There are 15 transfer elevators along the St. Lawrence with a combined storage capacity of 2.5 million tonnes. For the most part their function is limited to the transfer of grain and therefore cleaning to export standards must occur at Thunder Bay. The only exception is the Quebec City transfer elevator that has recently been upgraded to clean grain to export standards. When the navigation season on the seaway is closed from January to March, there are some winter rail movements either from Thunder Bay or direct from the prairies to Quebec City.

APPENDIX B

**SCHEDULE OF GRAINS AND GRAIN PRODUCTS
ELIGIBLE FOR WGTA SUPPORT**

Schedule 1 (Sections 2 and 64) Grains, Crops and Products

Alfalfa Meal, Pellets or Cubes, dehydrated	Meal, Rapeseed or Canola
Barley	Meal, Oil Cake, Linseed
Barley, Crushed	Meal, Oil Cake, Rapeseed or Canola
Barley, Pearl	Meal, Oil Cake, Sunflower Seed
Barley, Pot	Meal, Rye
Barley Sprouts	Meal, Wheat
Beans (except soybeans) including faba beans, splits and screenings	Middlings
Bean (except soybean) derivatives (flour, protein, isolates, fibre)	Millfeed
Bran	Mustard Seed
Breakfast Foods or Cereals (uncooked) in bags, barrels or cases. Manufactured from commodities only as listed in this Schedule.	Oats
Buckwheat	Oats, Crushed
Canary Seed	Oats, Rolled
Corn, Cracked	Oil Cake, Linseed
Corn (not popcorn)	Oil Cake, Rapeseed or Canola
Feed, Animal or Poultry (not medicated or condimental), containing not more than thirty-five per cent of ingredients other than commodities as specified in this Schedule, in bags or barrels or in bulk	Oil Cake, Sunflower Seed
Flaxseed	Oil, Linseed
Flour, made from grain or malt in bags or barrels or in bulk	Oil, Rapeseed or Canola
Grain, Feed, in sacks	Oil, Sunflower Seed
Groats	Peas, including splits and screenings
Hulls, Oat	Pea derivatives (flour, protein, isolates, fibre)
Lentils, including splits and screenings	Rapeseed or Canola
Malt (made from grain only)	Rye
Meal, Barley	Screenings or Screenings pellets (applicable only on Screenings from grains specified herein)
Meal, Corn	Seed Grain in Sacks
Meal, Linseed	Shorts
Meal, Oat	Sunflower Seed
	Triticale
	Wheat
	Wheat Germ
	Wheat, Rolled
	1980-81-82-83, c. 168, Sch. I.

Source: Canada, Western Grain Transportation Act. Chap. W-8, 1984.