

Memorandum to: Canadian Grain Commission
From: North American Grain Grading Group
Re.: Canadian Grain Commission Request for stakeholder submission on Falling Number (FN) and Deoxynivalenol (DON) as potential grading factors
April 30, 2019

Introductory statement by the North American Grain Grading Group

The North American Grain Grading Group (NAGGG) represents wheat growers from each of Canada's four western provinces. We are writing to advise that Canada's current grading system negatively affects farm income and impedes the ability of wheat growers to compete internationally by suppressing the potential value of Canadian wheat. By introducing a milling specification grade, market opportunities could be accurately captured, allowing Canadian growers to achieve greater returns in sales. The greater transparency would bring to an end the practice of price discounting against farmers. It would increase the number of options for food products and markets. It would make Canadian grain more competitive internationally.

The NAGGG urges the CGC to ease impediments to the sale of U.S. wheat within Canada. By not allowing U.S. wheat to be sold in Canada at premium grades, the country's statutory grading system is effectively barring top-tier U.S. grain from Canadian markets. Canadian wheat, it should be noted, represents 98 per cent of U.S. imports of wheat. The recent United States-Mexico-Canada Agreement, signed on Nov. 30, 2018, sought to end this ban, a major U.S. trade irritant. The NAGGG urges the CGC to move forward swiftly with legislative changes to allow U.S. wheat equal access to the Canadian marketplace. Current regulations put growers at risk of dangerous trade retaliation.

Regulation and CGC Request for Stakeholder Submission

Complex, excessive and unnecessary regulation can corrupt an intended policy aim, according to the Organization for Economic Co-operation and Development. It can have the unintended consequence of picking winners and losers, throttle innovation and competitiveness. (See: *Regulatory Policy: Improving Governance*, Organization for Economic Co-operation and Development, Paris, July 2012, page 7).

The Global Competitive Index, the annual exercise by the World Economic Forum tracking global competitiveness, ranks Canada 14th overall. When ranked on the burden of regulation, Canada drops to 38th, compared to 7th place Germany and the 12th place U.S. (See: OECD, Global Competitiveness Index, Paris, 2017-18).

Last month, the Canadian Grain Commission, which is legally mandated to support Canadian farmers, launched a stakeholder discussion on the potential addition of two grading factors to Canadian wheat, both commonplace measurements in the global grain trade. The CGC asked stakeholders to comment on the introduction of: Falling Number, which measures weather or sprout damage and DON, which indicates the presence of vomitoxin in grain infected by fusarium.

This is the fourth time the CGC has reviewed Canada's wheat grading system in the last four years, creating confusion in crop and planting decisions for farmers. The CGC review has caused the devaluation of several important Canadian varieties, including the 2015 demotion of 25 varieties of flagship Western Red Spring and a further five in 2018, The CGC reduced the value of this high protein grain by moving it into lower quality Canada Northern Hard Red class and

adding five new varieties to the class, leaving former Western Red Spring cultivars to compete with low protein wheat from the Baltic Sea region.

The CGC needs to be more relevant, transparent and responsive to market demand

Canada's rigid and antiquated grain grading system—one of the only such systems still standing in the Western world—classifies grains, cereals and oilseeds. It tends to bundle wheat characteristics the way cable companies bundle television channels. Each class is made up of an array of characteristics, like weight, moisture or kernel make-up, each within a narrow range. But grain buyers, like TV viewers, want à la carte pricing for wheat rather than getting a smorgasbord of attributes, which almost every other grain-producing nation offers buyers. Under this system, grain buyers hammer out milling quality in contract terms.

For the last four decades, traders in most wheat producing countries, including the U.S. and Australia, began using the grain-trading standard developed by London-based Grain and Free Trade Association (GAFTA). Some 80 per cent of world trade in grain is currently governed by GAFTA rules; this allows buyers to contract directly with multinational inspection and certification firms like U.K.-based Intertek Group or Swiss-based SGS.

Canadian farmers are meanwhile forced to pay twice for inspections under CGC regulations: once for a private analysis and once for the legally mandated CGC inspection, which costs farmers roughly three times what they pay for private inspection and weighing.

While cropping decisions, cost, consistency and convenience weigh against CGC grading, its main disadvantage is the price discounting it encourages, exposing farmers to significant losses. In many countries, what the CGC ranks as low value, "feed quality" grain is often rated top, milling quality, and priced accordingly. This allows grain buyers to snap up the downgraded Canadian grain and turn around and sell it—at a much higher price—to millers, grain merchants and brokers around the world, pocketing the difference.

Consider the case of Binscarth, Man. farmer, Paul Orsak. In March 2015, Intertek rated Orsak's 8,000 metric tonne wheat crop No. 1 milling quality in the U.S. but under Canadian grading as feed, a roughly \$500,000 price difference. Orsak sold the wheat to the U.S. privately and complained to the CGC about the price discounting that the current grading system encourages: "Literally hundreds of millions of farmer dollars can be lost when the grading system we use is so rigid, so unreflective of end use qualities and so massively different from important buyers and competitors." (Attachment #1: March 9, 2015 Intertek Report of Analysis for Submitted Samples: Orsak Farms Ltd., Binscarth, Manitoba).

The 2012 shuttering of the Canadian Wheat Board (CWB) monopoly as the sole buyer and seller of western Canadian wheat allowed farmers to be sellers in their own right. While the CWB worked hand-in-hand with the CGC, its closure provided the opportunity for the Commission to find a way to stop price discounting, which is allowing significant price differentials for the same type and objective quality of wheat. The creation of new grading factors will exacerbate this harmful practice.

Advances in farm technology— from GPS on farm equipment to temperature and moisture sensors — have accelerated, resulting in greater farm profitability and a more efficient supply chain. Recent innovation, developed by Saskatoon-based Intelliconn, will allow farmers to reliably sample their commodities in real time, facilitating product delivery to buyer specification. By effectively permitting farmers to manage their own grain quality, statutory grading is becoming of questionable relevance. (Attachment # 2: Intelliconn: The Problem /The Solution).

Buyers' requirements have also evolved rapidly, resulting in an unsettled role for the CGC. In malting barley, for example, buyers seek certain enzyme and flavour characteristics. In canola, certain varieties are pulled through the system to capture special attributes of their oleic structures. Some of this pressure originates with consumers, who are demanding premium and specialized wheat strains and healthier options from grains and breads.

One prominent Canadian distiller has a distinct preference for rye grown in rotation after alfalfa. This distiller insists that there is a certain organoleptic characteristic in such rye, providing a special flavour to his whiskey. Thus we have a particular No. 1 rye that has more value to the buyer than another No. 1 rye grown under different conditions. What would the CGC's role be in selecting this 'top rye'? Building a laboratory to "smell out" this organoleptic factor?

To provide another example, a prominent U.S. milling company prefers to source its oats from Manitoba—and has paid a premium for them. It turns out the betaglucan formation of Manitoba oats is best for their particular formulation. Thus, a No. 1 oat of this specification has more value than that of a No. 1 oat elsewhere in Canada. Is the CGC going to build a lab to measure betaglucan type and concentration to "help" the buyer do something it is now doing for itself?

How can the CGC get involved with these kind of market requirements? Indeed, the whole point of this current review is to catch the CGC up to the testing that the global grain industry has undertaken for years. (Attachment # 3: Modernization of Western Canada's Wheat Grading, North American Grain Grading Group, December, 2018).

As for fusarium (DON) testing, buyers have different specifications depending on its intended application. By regulation, US millers have a 1PPM maximum allowance in wheat flour shipments, translating in terms of inbound wheat to some variability. In feed barley, the maximum may be 1PPM for hog feed but up to 5PPM in cattle feed. Measuring DON levels may be useful relative to application but is meaningless in terms of numeric grade—let the buyer figure this out with his or her supplier on a mutual basis.

There are many other mycotoxins that are measured in the same way as fusarium—ochre toxin (in oats) and aflatoxin (in corn), for example. Does the CGC intend to create a screening laboratory to measure all and apply them to numeric grade standards?

Trade concerns

Trade flows show that Canadian wheat moves freely to the U.S. with Canadian exports accounting for 98 per cent of total wheat imported by the U.S. While U.S. farmers can sell into Canada, there are impediments on most wheat sales given that CGC grading treats U.S. wheat as feed grade. While the recent United States-Mexico-Canada Agreement sought to end this practice, the text of the agreement—requiring U.S. grown wheat entering Canada to be of varieties registered in Canada—suggests that save U.S. grains registered in Canada, all others are to be downgraded. According to a 2016 report by the U.S. Department of Agriculture, there are effectively only two varieties of U.S. Hard Red Spring registered in Canada.

In effect, this form of price discounting has become a trade barrier. U.S. farmers are unwilling to have their grain deemed feed grade. The NAGGG believes that these discounting practices carry with them the potential for dangerous retaliatory trade action, such as tariffs or embargos on Canadian wheat.

The cumbersome process for registering new varieties in Canada exacerbates the issue. While thousands of wheat varieties are available in the U.S., Agriculture Canada reports only 340 varieties in Canada in 2012. For the northern tier states interested in exporting a hard red spring, only 2 U.S. varieties grown in the U.S. are registered in Canada, despite Hard Red Spring being

Canada's major wheat crop. (Attachment # 4: Report to Congress on Policy Barriers to U.S. Grain Producers, March 2016; U.S. Department of Agriculture). The result of Canada's inflexible attitude to new variety registration combined with price discounting, a practice that CGC regulation encourages, has resulted in an effective ban on US wheat entering Canada.

Conclusion

The CGC request for submission on FN and DON is the equivalent of re-arranging the deck chairs on the Titanic. What is needed is the overhaul of the system of grain grading, to allow greater transparency by resorting to a specification grade; to ending the harmful practice of price discounting against farmers; to ensuring that trade relationships flourish and grow and to improving Canada's competitiveness. The NAGGG says that if specification grading were available, DON and FN measurements would be part and parcel of contracted qualities.

The NAGGG looks forward to participating in the CGC review, announced in March 2019 and aimed at determining whether the Commission continues to reflect the realities of Canada's 65,000 grain farmers. With Canada poised to be one of the top five competitors in the agri-food sector by 2025, the CGC review is urgent and necessary.

Respectfully submitted on behalf of the North American Grain Grading Group,

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RECEIVED DATE: 6-Mar-15
 TESTED DATE: 6-Mar-15
 REPORT DATE: 9-Mar-15

973 St. James St., Winnipeg, Manitoba R3H 0X2
 Phone: (204) 944-1887 Fax: (204) 942-0334

REPORT OF ANALYSIS FOR SUBMITTED SAMPLES - GRADE & FALLING NUMBER

SAMPLE NO.	SAMPLE ID	GRADE	REASON FOR GRADE	DKG%	PROTEIN %	MST%	TM/T (kg/h)	ERG%	FN 1	FN 2	FN AVERAGE (SECOND)
1	B-12	Wheat, No. 3 CWRS	FRHTS	0.4	14.3	11.4	81.4	0.000	317	325	321
2	Comp F6- B12	Wheat, No. 3 CWRS	FRHTS	0.3	13.8	12.4	81.2	0.000	329	323	326
3	Comp N1-N4	Wheat CW Feed	GR, FRHTS	0.4	14.0	13.4	77.7	0.000	377	382	380

WORK ORDER NO.: CA200-0011684-07
 CUSTOMER: ORSAK FARM
 RECEIVED DATE: 6-Mar-15
 TESTED DATE: 6-Mar-15
 REPORT DATE: 9-Mar-15

From: Cara Leslie Intertek [mailto:caraleslie@intertek.com]
 Sent: March-13-15 11:25 AM
 To: paulorsak@inethink.ca
 Cc: *OCA AMER CAN Winnipeg Operations
 Subject: CA200-0011684-1-2 Orsak Farms CDN Grades, DON, FN

USA.

SAMPLE NO.	SAMPLE ID	GRADE	REASON FOR GRADE	DKG%	PROTEIN%	MST%	DHV %	IBW BU	FM%	SAB%	TDMG%	TOEF%	*IDK	CC%	WOCCL %	FN 1	FN 2	FN AVERAGE (SECOND)
1	B-12	Wheat, US No. 1 DNS		0.4	14.5	11.3	82	63.6	0.1	0.4	0.2	0.7	0.0	0.0	0.0	317	325	321
2	Comp F6- B12	Wheat, US No. 1 NS		0.3	14.0	12.2	68	61.6	0.1	0.4	0.1	0.6	0.0	0.0	0.0	329	323	326
3	Comp N1-N4	Wheat, US No. 1 NS		0.3	14.2	13.2	70	61.6	0.1	0.4	0.8	1.3	0.0	0.0	0.0	377	382	380

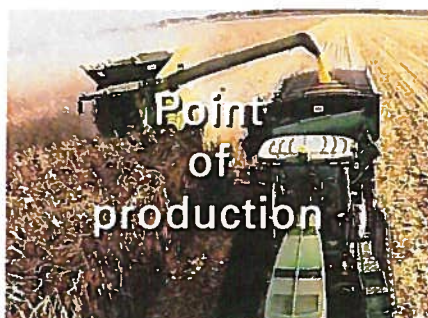
Manager, Agri Operations - Canada
 Norm Woodbeck

Laboratory Manager
 Charlotte Hoorne

Reviewed by:
 Lori Waskul

CAN.

The Problem



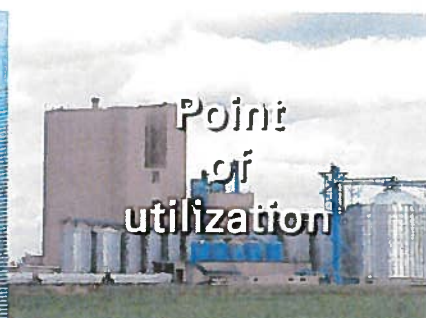
Significant financial, environmental, and human resources are invested to grow as much quality and quantity as possible.

[Information: Automated-Digital]



When commodities are harvested and put into storage the grower doesn't really know what they have for quality or characteristics.

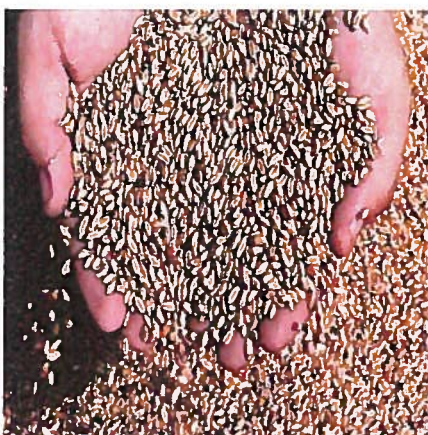
[Information: Manual-Analog]



Buyers and processors don't really know what they are buying, or what will be delivered, and would like better traceability.

[Information: Automated-Digital]

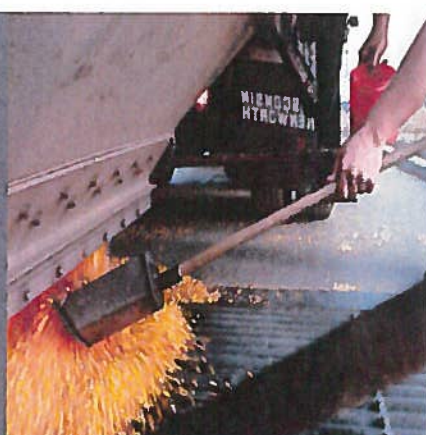
The Cause



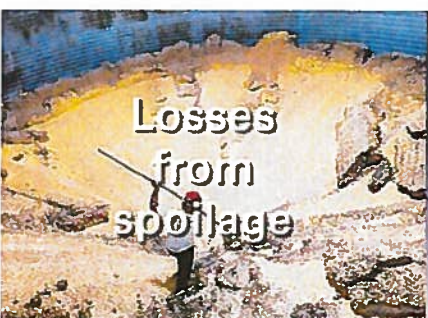
Random sampling using a scoop on a stick doesn't provide representative information to determine commodity quality.

Visual inspection can't determine valuable commodity characteristics.

Manual information input and waiting for test results doesn't allow timely decisions, so commodity utilization and value often can't be optimized.



The Result



Billions of dollars of commodities are lost or degraded every year due to spoilage from fungus and insects.



The grower can't negotiate optimal pricing that reflects the true characteristics and value of their commodities.



When loads delivered don't meet the purchaser's expectation the grower must take whatever they are offered.

INTELLICONN™

The Solution: ingrain™

Automated commodity sample acquisition and digitization assures growers get accurate, real-time information which can be directly interfaced with their farm management software to make quicker, more informed decisions for commodity:

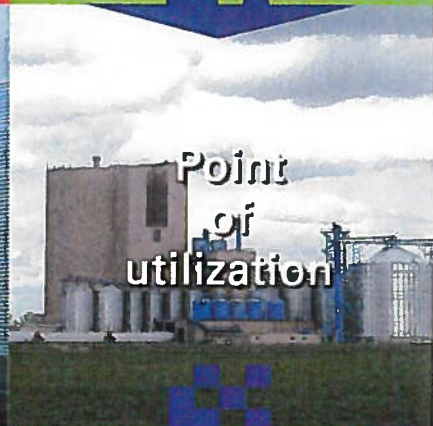
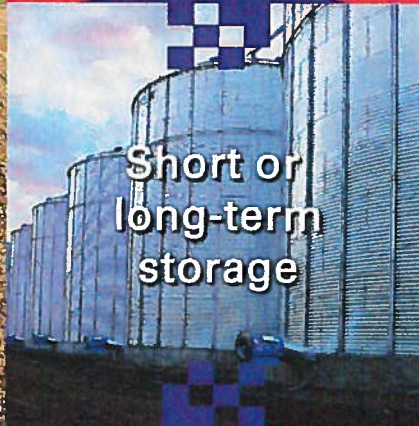
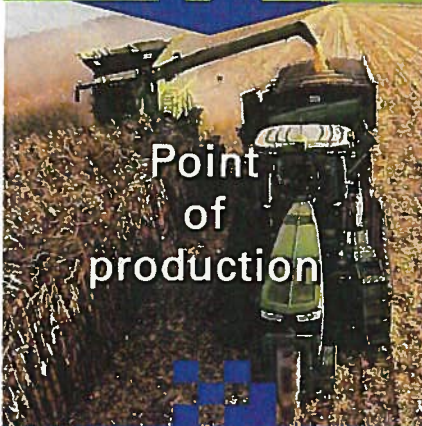
- Value optimization
- Spoilage management
- Moisture optimization

Accurate, real-time, information on commodity quality and quantity allows quicker, better informed decisions, and more efficient operation for:

- Growers
- Buyers
- Analytics labs
- Blockchains
- Banks
- Traceability
- Sustainability

Detailed current and historical commodity quality and quantity information is crucial to optimize commodity utilization and efficiently run operations:

- Food processors
- Millers
- Malters
- Distillers
- Livestock feeders
- Crushers



Aggregated and analyzed commodity quality and quantity data is valuable for many companies in the food chain/web to make short and long-term decisions:

- Growers: when to sell
- Buyers: product availability
- Input suppliers: how much to produce and where to ship



Cloud-based information is easily accessible and shareable globally by approved users.



App-based user interface makes information and analytics access and sharing easy.

MODERNIZATION OF WESTERN CANADA'S WHEAT GRADING

Need: 1) There have been numerous calls for the rationalization of the Canadian wheat grading system. It has been tinkered with for many years in the absence of an open review that emphasized farmer interests.

2) Current wheat quality options for Canadian milling and baking wheat classes are too restraining and limit the development and growth potential of the wheat industry.

3) Canada's Variety Registration system is overly restrictive, lengthy and expensive, which discourages innovation and deters Wheat Breeders from 'setting up shop' in Western Canada.

4) Limited access for USA produced wheat to Canadian markets is a politically sensitive issue that could result in USA trade action.

Summary: Wheat grades are determined by visual inspection at the time of grain delivery and by the declaration of variety name and/or analyses in specially equipped quality laboratories. In Canada, wheat market classes are determined by the Canadian Grain Commission (CGC) using data collected prior to variety registration for commercial production. However, the CGC is not bound by the initial assessments and has on numerous occasions re-classified varieties based on their own market evaluation and data analyses. Similar minor changes to the current testing procedures could enable greater harmonization of USA-Canada Wheat Grading systems. For example, variety evaluation programs in the USA routinely screen for the same quality characteristics as the CGC. Standardization of data collection and quality testing procedures in the two countries would allow for coordination of grading systems and provide for improved market transparency. These minor changes would modernize Canada's grading system and neutralize the political sensitive issue of market access by USA producers. They could be incorporated without compromising the Canadian grading system or Canada's reputation for the production and marketing of high-quality milling wheat.

Background: Canada Western Red Spring (CWRS) is by far the dominant class of common wheat marketed in western Canada. There are three main high quality CWRS grades: 1, 2, and 3. Specifications for these grades are determined by order of the Canadian Grain Commission (<https://www.grainscanada.gc.ca/oggg-gocg/04/oggg-gocg-4-eng.htm>).

Wheat grading can be a complex exercise. There are a large number of grading factors that are influenced by environment and grain handling (see grading factors in the above link). These are usually determined by visual inspection, some examples of which are given in Table 1. By comparison, there are numerous factors that are under strong genetic control and can't be determined by visual inspection. They include important wheat quality market factors, such as gluten strength, which normally requires analyses in a specially equipped grain quality laboratory or by the declaration of variety name. A large volume of similar wheat harvested under the same conditions is usually required to justify laboratory analyses on samples. For this reason, these critical factors are normally identified through the use of variety name when a farmer delivers to an elevator. This method requires quality descriptions for varieties using recognized procedures in accredited laboratories prior to the time of their commercial release. Declaration of variety name is used for grain grading and marketing in Canada and Australia, but is not normally considered part of the specs in the USA. This difference is a major barrier to rationalization of wheat trade across the USA-Canada Border.

Table 1. Example grading factors.

a) Visual factors determined from a sample at the time of delivery.

Weather and disease damage

Kernel soundness

Insect damage

Smell

Other contaminants and mixtures

Test weight

Moisture content

Production area

b) Factors under strong genetic control that can be identified by the declaration of variety name.

Kernel hardness

Flour yield

Water absorption

Flour color

Dough strength and mixing characteristics

Winter vs spring

c) Measured at the time of delivery.

Protein content

Rationalization of Canadian wheat grading.

“The Canadian Grain Commission (CGC) has authority under section 16(1) of the Canada Grain Act (the “Act”) to establish, by regulation, grades and grade names for western and eastern grain. Grades and grade names established by the Commission for some grains, in the Canada Grain Regulations, provide for different classes which are, under section 2 of the Act, a variety or varieties of grain designated by order of the Commission (<https://www.grainscanada.gc.ca/legislation-legislation/orders-arretes/variety/2018-26-en.html>)”. This provides the CGC with the ability to modify the grading system to develop and promote varieties with the special quality attributes. The grading system identifies genetically controlled quality differences, like gluten strength, and maintains the identity of grade classes by the declaration of variety name at the time of delivery.

The CGC normally determines the wheat class for a variety based on the data collected by and the advice of the Quality Evaluation Team of the Prairie Grain Development Committee (PGDC) for Wheat, Rye and Triticale. However, the CGC is not bound by the PGDC evaluation and has on numerous occasions re-classified varieties based on their own market assessment and data analyses. Recent examples include the creation of a Canada Western Extra Strong (CWES) class, a Canada Northern Hard Red (CNHR) class for cultivars with slightly lower gluten strength, and the Canada Western General Purpose (CWGP) class. These changes were accompanied by the demotion of 25 Canada Western Red Spring (CWRS) and four Canada Prairie Spring Red (CPSR) varieties to the CNHR class.

It has been argued that current quality options for Canadian milling and baking wheat classes are too narrow and limit the growth potential and development of the wheat industry. The number of recent class changes also indicates that there is an inability to seamlessly provide timely responses to changes in market demand. The CGC has the power to modify the current grading system based on wheat classes and move to wheat purchase using present-day market

milling and baking specifications. This would create a more responsive market by allowing ever changing opportunities to be quickly and accurately assessed on a continuing basis. It would greatly increase the number of food product and other market options for Canadian wheat and provide for greater market transparency and value to the grower.

The elimination of classes and a move to specification grading would retain the use of variety name to identify quality traits under strong genetic control, such as gluten strength. Quality analyses for variety description would be provided by accredited laboratories. This procedure could be streamlined, and would not necessarily require change from the present responsibilities of the PGDC Quality Evaluation Team and the CGC's independent evaluations.

Grain protein concentration (%) =
 $\text{Grain protein yield} / \text{Total grain yield} \times 100$.

Nitrogen (N) is the basic building block of protein with the result that grain protein yield (numerator) is directly related to the amount of soil available N. Consequently, two varieties growing side by side in the same field trial will have access to the same amount of available soil N and would be expected to have similar protein yield. The present method of for assigning gluten strength properties requires that a candidate variety be compared with standard or check varieties grown in the same field trials at the same locations. Grain from these trials is bulked and a composite sample is evaluated. As a result this method puts high yielding varieties at an extreme protein concentration disadvantage and masks their true quality potential. For example, a 15 % increase in a check variety with a grain yield of 3 tonne/ha and a protein concentration of 13 % would result in a protein decrease to 11.3 %. Gluten is an important wheat quality protein and this would be accompanied by about a 35% reduction in estimates of gluten strength and automatic disqualification this variety from consideration for the CWRS class in the current registration system. Farm wheat deliveries come from different fields that have different N levels and have been managed different with the result that a wide range of protein concentration should be expected for the same variety when it enters the marketplace. For this reason, quality comparisons should be made at the same protein concentration when variety name is used to estimate strength and related factors. The addition of N fertilizer is the most efficient method of correcting for protein yield shortfalls (Figure 1). It only makes sense that farmers should have the opportunity to grow high yielding, adapted varieties and the option to adjust N fertilizer inputs for grain quality targets that they select to maximize net returns.

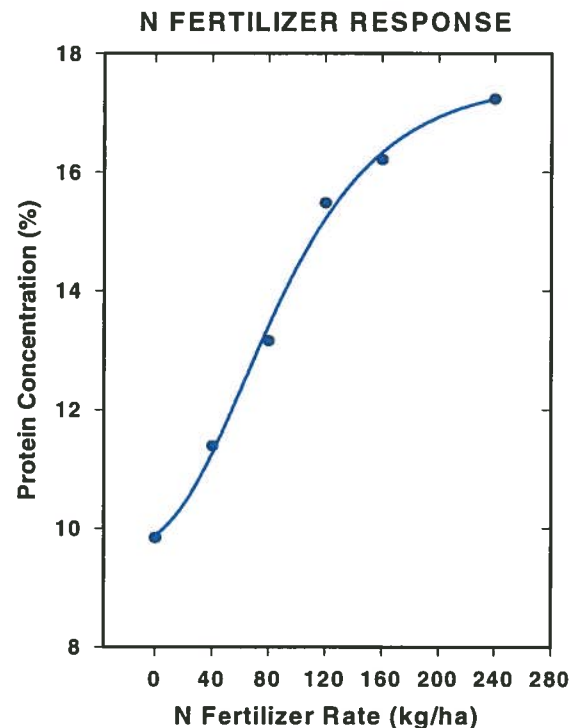


Figure 1. Generalized influence of N fertilization on wheat grain protein concentration.

Harmonization of USA-Canada Wheat Grading

A variety must be registered for production before it is eligible for top grades of wheat in Canada. This means that non-registered USA grown varieties are not eligible for CWRS grades and must be sold for feed or fuel in Canada even if their quality matches that of the highest CWRS grades. The absurdity of this situation is that, if an American was ever desperate enough to deliver this so-called feed wheat in Canada, it could regain its full value once it is in the grain companies bins. It could then be sold or blended to meet market specs of potential grain company customers. This is a politically sensitive issue of market access by USA producers and a major barrier to rationalization of wheat trade across the USA-Canada Border.

Many variety evaluation programs in the USA routinely screen for quality characteristics, including those under strong genetic control. For example, the USA Wheat Quality Council (<http://www.wheatqualitycouncil.org/>) coordinates extensive quality evaluation of varieties using industry recognized testing procedures conducted by approved laboratories in the same way as the CGC. This data is shared and the industry in both countries presently has a good idea of variety quality characteristics on both sides of the border. Further standardization of data collection and quality testing procedures in the two countries could allow for coordination of grading systems and provide for improved market transparency by using variety name and/or laboratory quality analyses for characters like gluten strength. Management of field trials would have to be agreed so that characteristics under strong genetic control could be easily identified by variety name. Variety quality comparisons would need to be made at the same protein concentration and this may require the use of N fertilizer trials to correct for differences in variety grain yield potential. This would create a more responsive market by allowing ever changing opportunities to be quickly and accurately assessed on a continuing basis while Canadian CW grades identified by specs could remain in place under CGC control to protect the Canadian "Brand name". The rest of the marketplace, from the farm to the end buyer, would operate using market specs. These minor changes would make the Canadian market more responsive and transparent. They would also remove the restrictions on the movement of USA produced wheat into Canada without compromising the Canadian grading system or Canada's reputation for the production and marketing of high-quality milling wheat.

Action: Rationalization of wheat trade across the USA-Canada Border

- a) Quality characteristics under strong genetic control identified by variety name or through sample grain quality laboratory analyses.
- b) Variety quality comparisons made at the same protein concentration.
- c) Quality analyses and applications responsibility of accredited laboratories with central monitoring system.
- d) Varieties with similar quality and market potential grouped together. For example, winter and spring wheat of similar specs binned together - wheat is wheat.
- e) Marketing specs and grades determined by the buyer.
 - Removes the USA-Canada Border
 - Allows the crop to be differentiated for a wide variety of markets, including niche food markets. Emphasizes N fertilizer management by the farmer.
 - Gives market transparency and value to the grower.

Benefits associated with modernization of Canada's Wheat Grading system.

- 1) Encourages the development of a North American wheat grading system in the interests of farmers on both sides of the 49th.
- 2] Creates a more transparent and competitive wheat market from farmers to the millers/consumers for domestic and/or export markets.
- 3] Grain companies currently buy based on 'variety and class' in Canada. 'Quality and value' should be based on milling specifications that encourage market equity for all sectors.
- 4] The proposed new approach to wheat grading is of particular importance to the Wheat Breeder since greater transparency helps to identify what the miller/consumer requires.
- 5) A North American wheat grading system based on the determinants in this document addresses the U. S. wheat grower concerns related to the delivery of "non-Canadian registered" wheat, which is down-graded to 'feed' and valued accordingly. These changes would remove a politically sensitive USA-Canada trade issue.
- 6] This modernization document, along with our recent meeting with the Canadian Grain Commission [Nov.5th/18], suggests the CGC should examine their 'management structure' in favor of a more representative Board of Directors that replaces currently appointed junior commissioner positions.

Prepared on behalf of The North American Grain Grading Group. Dec 7, 2018.

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Report to Congress on Policy Barriers to U.S. Grain Producers



**U.S. Department of Agriculture, Foreign Agricultural Service
March 2016**

Report on Policy Barriers to U.S. Grain Producers

Introduction

The Secretary of Agriculture, in consultation with the Office of the U.S. Trade Representative (USTR), is pleased to provide this Report on Policy Barriers to U.S. Grain Producers, as required by Section 303 of the Agriculture Reauthorizations Act of 2015 (H.R. 2051). Using the U.S. Department of Agriculture's (USDA) overseas network and Washington-based staff, the Foreign Agricultural Service (FAS) has taken inventory and identified Canada to be unique in meeting the specifications described in the Agriculture Reauthorizations Act of 2015 as a country "the grain of which receives official grading in the United States but which do[es] not offer official grading for United States grain or provide only the lowest designation for United States grain." This report describes policy barriers faced by U.S. grain exported to Canada, includes an analysis of possible inconsistencies with trade obligations, and describes the actions taken by the Executive Branch to remedy these policy barriers. USDA and USTR continue to address the barriers that U.S. grain exports face in Canada and work to create an environment in which U.S. grain competes on a level playing field with all trading partners.

U.S.-Canada Grain Trade & Border Statistics

With the elimination of the Canadian Wheat Board (CWB) single desk on August 1, 2012, as the sole buyer and seller of western Canadian wheat, Canadian farmers and Canadian grain companies gained the opportunity to market directly to the United States. The statistics presented below look at average trade flows that have occurred in marketing years (August-July) 2012/2013, 2013/2014, and 2014/2015, since the elimination of the CWB single desk:

- U.S wheat exports to the world averaged 26.7 million metric tons (MMT) over the three marketing year periods. For the same time period, Canadian worldwide wheat exports averaged 18.1 MMT.
- U.S. wheat exports to Canada have averaged 53 thousand metric tons (TMT) over the three marketing years and accounted for a 74-percent share of total wheat imported by Canada.
- For the same time period, Canadian exports to the United States have averaged 3.1 MMT. Fourteen percent of Canada's wheat exports are to the United States and account for a 98-percent share of total wheat imported by the United States.

- Canada is a significant market for U.S.-produced flour and pasta product exports. The United States ships approximately 11 TMT of flour and 75 TMT of pasta products to Canada each year, accounting for 40 to 45 percent, respectively, of total U.S. exports of these products worldwide.
- An estimated 11 percent of Montana, 28 percent of North Dakota, and 8 percent of Minnesota wheat production is within 50 miles of a Canadian grain elevator, totaling 3.2 MMT. An estimated 9 percent of North Dakota and 4 percent of Montana production is within 25 miles of a Canadian grain elevator, totaling 1.01 MMT.¹

Canadian Grain Definitions

Class: A class of grains is a grouping with similar functional qualities (end-use characteristics). Canadian wheat varieties fall into classes and each class is unique.² For example, *Canada Eastern Hard Red Winter* is a class of wheat that is considered good for milling.

Variety: Multiple varieties are designated within each class. For example, there are 38 varieties designated within the *Canada Eastern Hard Red Winter* class. *Frontenac* is one variety within this class³.

Grading Factor: A grading factor is a physical condition of grain, the result of growing conditions, handling procedures, or storage practices. It is a visual characteristic that indicates a reduction in quality. Examples include frost/heat stress, sprouted kernels, or heated kernels.⁴

Canadian Grain Grading and Inspection Requirements

A number of grain sector policies limit the ability of U.S. wheat and barley exporters to receive a premium⁵ grade in Canada, including the provisions of the Canada Grain Act and Seeds Act.

Canada Grain Act

The Canada Grain Act (R.S.C., 1985, c. G-10, [hereinafter Grain Act])⁶ establishes the Canadian Grain Commission (CGC),⁷ which “in the interests of the grain producers, (shall)

¹ U.S. Wheat Associates “Canada Fact Sheet 2015”

² Canadian Grain Commission website: www.grainscanada.gc.ca/wheat-ble/classes/classes-eng.htm Canadian Wheat Classes

³ Canadian Grain Commission website: <http://www.grainscanada.gc.ca/legislation-legislation/orders-arretes/ocgcm-maccg-eng.htm> Canadian Varieties by Class.

⁴ Canadian Grain Commission website: <https://www.grainscanada.gc.ca/wheat-ble/wgfm-mfcb-eng.htm> Grading factors for Canadian wheat.

⁵ Premium grade indicates use for milling purposes as opposed to grain for feed use.⁶ The *Canada Grain Act* is available at: <http://laws-lois.justice.gc.ca/PDF/G-10.pdf>

⁶ The *Canada Grain Act* is available at: <http://laws-lois.justice.gc.ca/PDF/G-10.pdf>

⁷ §3 of the *Canada Grain Act*.

establish and maintain standards of quality for Canadian grain and regulate grain handling in Canada, to ensure a dependable commodity for domestic and export markets.”⁸ The CGC is specifically charged with two relevant activities: (1) establishing the grain grades and standards, and (2) implementing a system for grading and inspection.⁹

(1) Establishing Grain Grades

The CGC works to fulfill its mandate by establishing various classes of Canadian wheat and barley. Grain grades are assigned by class according to various grading factors established through the Canada Grain Regulations. These grades represent the quality of the grain in a specific class. Specifically, each Canadian grain class groups together approved wheat or barley varieties that have similar functional qualities (end-use characteristics). Moreover, these grades and classes only relate to varieties of wheat or barley approved for sale in Canada (see description of varietal registration system below).

Further, the Grain Act directs the CGC to “establish grades and grade names for any kind of western grain and eastern grain and establish the specifications for those grades” by regulation.¹⁰ The explicit division between “eastern grain” and “western grain,” are defined in the Grain Act as “grain grown in the [Eastern or Western] Division,” defined geographically within Canada, further underscores that grading is only available to Canadian grains.¹¹

(2) Implementing Inspections

Pursuant to the Canada Grain Act, the CGC is mandated to provide for the inspection and certification of grades. Inspection procedures also differentiate between Canadian and foreign wheat and barley. In particular, Section 32(1) of the Grain Act provides that:

Subject to this Act, an inspector, after making an official inspection of grain pursuant to this Act, shall issue an inspection certificate in prescribed form,

- (a) where the grain was grown in Canada,
 - (i) assigning to the grain a grade established by or under this Act or, if the grain is eligible to be assigned more than one grade, assigning to the grain the grade constituting the highest level of excellence for which the grain is eligible, and
 - (ii) stating the dockage to be separated from the grain in order that it may be eligible for the grade so assigned; or

⁸ §13 of the *Canada Grain Act*.

⁹ The Commission’s primary function to further this objective is to “recommend and establish grain grades and standards for those grades and implement a system of grading and inspection for *Canadian grain* to reflect adequately the quality of that grain and meet the need for efficient marketing in and outside Canada.” §14(1)(a) of the *Grain Act*.

¹⁰ §16(1) of the *Grain Act*.

¹¹ §2 of the *Grain Act*. The full definitions are as follows: “‘Western Division’ means all that part of Canada lying west of the meridian passing through the eastern boundary of the city of Thunder Bay, including the whole of the Province of Manitoba” and “‘Eastern Division’ means that part of Canada not included in the Western Division.”

(b) where the grain was grown outside Canada, stating the country of origin of the grain or stating that the grain is foreign grain.

Thus, when U.S. grain enters a Canadian grain elevator, it must be segregated from Canadian grain, since it will not be issued a Canadian grade certificate, while the Canadian grain will. The certificate for U.S. grain can only state the country of origin for that grain and not issue a grade.

(3) Varietal Registration System

Varietal registration requirements also affect the official Canadian grading system and can act as an additional hindrance to U.S. grain farmers and traders trying to deliver grain into the Canadian bulk handling system. Even if grain grown outside Canada were eligible to receive a premium grade, under the Canada Grain Act, unregistered varieties are only eligible to receive the lowest grade allowable in each class. In particular, paragraph 28 of the Canada Grain Act states:

Notwithstanding paragraph 27(4)(b), where grain of any kind is of a variety produced from seed of a variety that is not registered under the Seeds Act for sale in or importation into Canada, no person shall, except with the permission of the Commission, assign to that grain a grade that is higher than the lowest grade established by regulation for that kind of grain.

As discussed below, the rate at which Canadian farmers will have access to new varieties will continue to lag behind the adoption rate by farmers in the United States who have immediate access to commercialized varieties. Therefore, U.S. farmers will grow varieties not registered in Canada. Even if grain grown outside of Canada were eligible to receive a premium grade, U.S. farmers would incur significant cost to grow and segregate the small number of Canadian registered varieties if they wished to receive a grade higher than the lowest grade for their shipment to Canada.

Impact on Sales of U.S. Grain to Canada

The barriers described above to assigning U.S. grain a premium grade encourage both a price discounting of high-quality U.S. grain appropriate for milling use and *de facto* segregation at the Canadian elevator.

U.S. wheat and barley can be sold without a grade directly to interested Canadian purchasers at prices based on contract specifications. However, contract-based sales are a relatively small proportion of all sales in Canada. Most sales occur through the bulk handling system in grain elevators. Canadian grain elevators offer economic efficiencies by collecting and storing grain from many small-volume growers and demanding higher prices for their ability to fulfill larger contracts.

Varietal Registration Process

Only a limited number of varieties of wheat and barley currently being grown in the United States are registered for use in Canada due, in part, to the cumbersome and slow process for registering new varieties under Canada's Seeds Act. The process, which can be a deterrent to seed developers who bear the responsibility to register their seeds in Canada, requires new varieties to be vetted by Recommending Committees before being approved for use in Canada. Under the Seeds Act, industry-led, crop-specific Recommending Committees must set crop-specific procedures for crop performance trials, then determine crop-specific "merit" criteria (e.g., agronomics, end-use quality, and/or disease resistance), and assess new varieties to determine if they perform as well or better than reference varieties. Finally, the Recommending Committee sets requirements for two to three years of pre-registration field trials.

Canada is making changes to streamline and modernize the process used to register new crop varieties. In 2013, the Canadian Government presented an options paper seeking guidance on how to modernize and streamline the crop varietal registration system. Among the options was the removal of the oversight role of Canada's Federal Government in varietal registration. On April 14, 2015, the Government of Canada made public its plans to reform the system, which did not include removal of the Canadian Government's oversight role in varietal registration. Instead, the focus was shifted to streamlining the procedures for the crop-specific Recommending Committees, dividing the registration system into two tiers (basic and enhanced), and allowing for the "incorporation by reference" that would speed up administrative changes by up to 24 months.

In the United States, unlike Canada, grain varieties are not regulated at the Federal level. The U.S. Grain Standards Act establishes classes of grain and authorizes USDA's Grain Inspection, Packers & Stockyards Administration's (GIPSA) Federal Grain Inspection Service (FGIS) or a designated or delegated State Department of Agriculture, on behalf of FGIS, to inspect and certify the quality of the grain and class. FGIS inspectors (or the designated State inspector) are prohibited from attesting to the variety of grain since varieties are not regulated at the Federal level. In the United States, public (land grant universities) wheat breeding programs and private breeders all release varieties with no Federal oversight. Wheat stakeholders (millers, bakers, wheat commissions, etc.) determine what quality traits are desired. Growers decide what varieties to plant. There are thousands of wheat varieties available in the United States, for example.¹² As of 2012, there were 340 wheat varieties registered in Canada, with 56 of these of U.S. origin.¹³ However, of those 56 varieties, only 20 varieties are currently planted by U.S. farmers. For farmers in the northern tier States interested in exporting a hard red spring wheat, only two U.S. varieties are registered in Canada and grown in the United States.

Despite the changes being implemented to the Canadian varietal registration system, the rate at which Canadian farmers will have access to new varieties will continue to lag behind the

¹² <http://www.wheatworld.org/wheat-info/fast-facts/>

¹³ <http://www.agr.gc.ca/eng/about-us/public-opinion-and-consultations/crop-variety-registration-modernization/crop-variety-registration-in-canada-issues-and-options/?id=1374783569676>

adoption rate by farmers in the United States who have immediate access to commercialized varieties. In addition, U.S. grain farmers will choose to grow varieties that fit their agronomic needs, not those of Canadian grain farmers.

Analysis of Inconsistencies with Trade Obligations

Policies that negatively impact the flow of goods between the United States and our trading partners raise significant concerns for the U.S. Government. U.S. trade agreements contain rules that help to ensure reduced barriers to trade in goods and services. Canada and the United States are members of the World Trade Organization (WTO), and thus they are subject to the obligations in the WTO Agreement, including under the General Agreement on Tariff and Trade (GATT) and Agreement on Technical Barriers to Trade (TBT Agreement), which also facilitate the elimination of trade barriers. The United States closely monitors foreign government policies and, consulting with U.S. stakeholders, works to ensure our trading partners live up to their international trade commitments.

As described above, the Canada Grain Act, as implemented through regulations and CGC action, establishes grain grades and inspection requirements in such a way as to prevent or severely limit the grading of foreign grain. This encourages a price discount on U.S. grain. Given the inability to receive a premium grade, Canadian grain elevator operators are encouraged as a practical matter to segregate U.S. grain. As a result of this segregation, U.S. growers are unable to take advantage of the competitive pricing advantages of bulk storage, handling, and distribution facilities available to Canadian growers. This may result in less favorable conditions for sale of U.S. grain, as compared with domestically produced grain of the same type and quality, thus raising concerns with respect to Canada's trade obligations.

Actions the Executive Branch Is Taking to Remedy the Policy Barriers

The Executive Branch has pressed Canada to remove barriers related to grain grading, including at the Cabinet- and senior-official level. This matter has been described in USTR's National Trade Estimate Report on Foreign Trade Barriers and raised bilaterally at meetings, including by the Secretary of Agriculture and in the U.S.-Canada Consultative Committee on Agriculture. FAS's Office of Agricultural Affairs in the U.S. Embassy in Ottawa (FAS Ottawa) frequently engages with the Canadian Government on these issues, including Agriculture and Agri-Food Canada, the Canadian Grain Commission, and the Canadian Grains Council. The U.S. Minister-Counselor for Agricultural Affairs posted to Canada serves as a U.S. Government representative on the Canada-U.S. Grain and Seed Task Group Communications Sub-Committee. As part of this government-to-government forum, the United States has identified policy options that would allow the registration of more imported grain varieties and supported legislative reform allowing for the grading of imported grain. In 2013, the Canadian Government presented an options paper seeking guidance on how to modernize and streamline the crop variety registration system. Among the options is to remove the oversight role of Canada's Federal Government in varietal registration. The U.S. Government provided comments through bilateral consultations and through the Canada-U.S. Grain and Seed Task Group Communications Sub-Committee, as well as through U.S.

industry and U.S. Embassy/Ottawa consultations. Both the U.S. wheat industry and U.S. Embassy/Ottawa have requested U.S. unregistered varieties be graded on their merit.¹⁴

In addition to pressing the Government of Canada, the Executive Branch also regularly engages with U.S. and Canadian industry to better understand the effects of Canada's grain policies. FAS Ottawa also provides routine analysis and reports on Canada's grain policies.

A bill that would have addressed grain grown outside Canada being unable to receive a Canadian premium grade was introduced in Canada's House of Commons on December 9, 2014, but was not passed prior to the October 2015 Federal elections. Bill C-48, a bill to modernize the Canada Grain Act, was sponsored by then-Canadian Minister of Agriculture and Agri-Food Gerry Ritz as part of the Government's efforts to modernize and streamline the CGC's operation while reducing costs to the grain sectors. Senior USDA and USTR officials are highlighting the need for Canada's new Government officials to prioritize legislative reform that allows grain grown outside of Canada to receive a Canadian premium grade.

Conclusion

Canada's wheat sector has undergone major changes with the elimination of the Canadian Wheat Board. USDA and USTR continue to press the Canadian Government to move forward swiftly with legislative changes that would enable grain grown outside Canada to receive a premium grade and changes to its varietal registration system. These issues were raised on multiple occasions this year by the Secretary of Agriculture and U.S. senior officials with their Canadian counterparts. USDA and USTR will continue to consult with stakeholders and consider all available options to remedy barriers to U.S. grain.

¹⁴ U.S. Wheat Associates response to the Canadian Grain Commission's request for comments on Canada's wheat class modernization.