



Canadian Grain
Commission

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Wheat class modernization

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Canada 

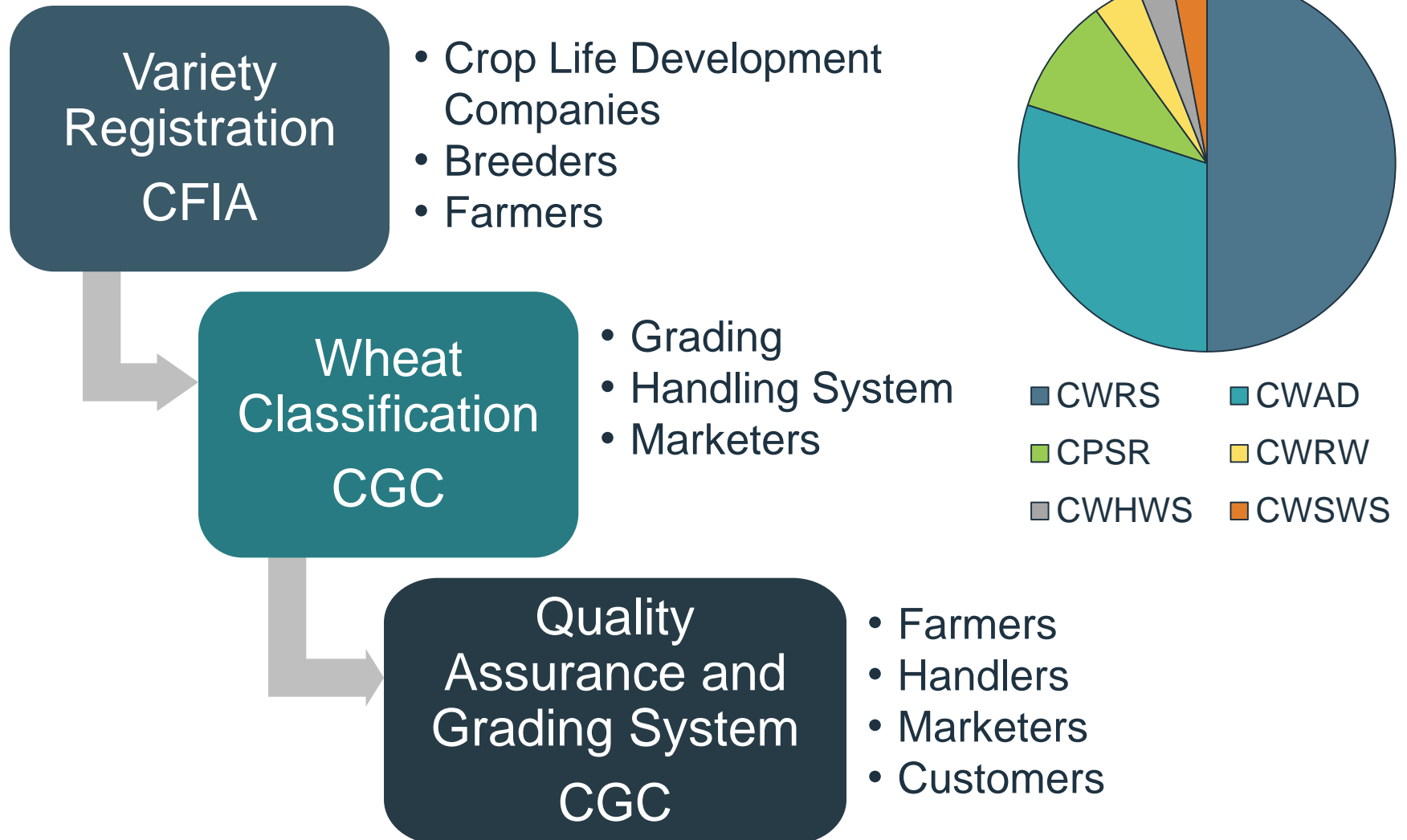
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Wheat class background

- **1971** Canada Western/Eastern wheat class system
- **2008** Removal of Kernel Visual Distinguishability (KVD)
- **2008** GP class - demand for feed and ethanol varieties
- Seeded acres of unregistered US varieties
- Gluten strength concerns from international & domestic customers

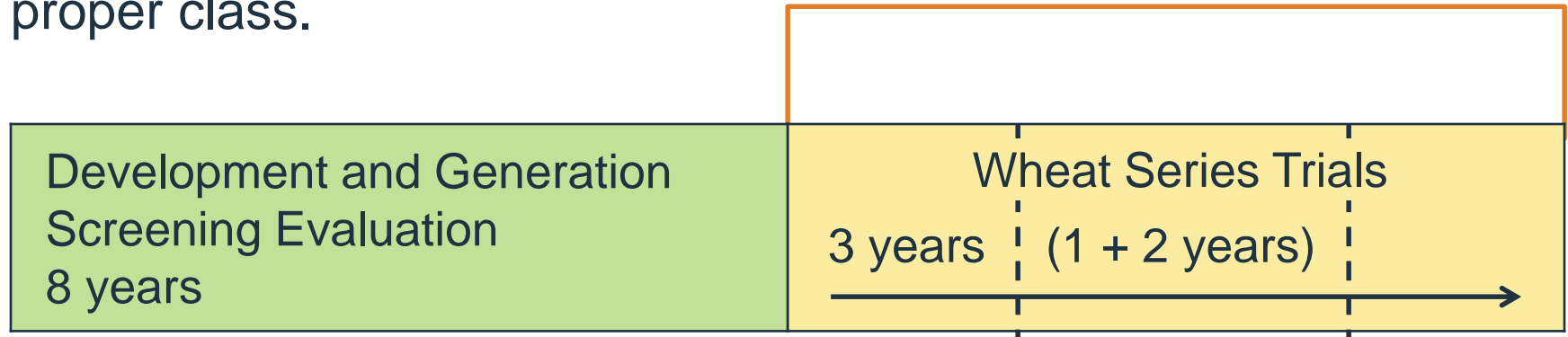
Canada's comprehensive foundation for quality



Timelines for registration of a wheat variety

Votes by 25 quality experts on the quality of a new variety helps CGC determine its proper class.

Agronomy Evaluation Team
Disease Evaluation Team
Quality Evaluation Team



PRC: Wheat, rye and triticale quality evaluation

Parameters reviewed

- Wheat protein, test weight, falling number
- Flour protein and flour yield
- Amylograph viscosity, flour ash, flour colour
- Farinograph gluten strength
- Extensograph gluten strength
- Bread making by CSP method
- Noodle making quality

Background for modernization proposal

The Canadian Grain Commission has the responsibility to designate a new or existing variety to a specific wheat class.

Background for modernization proposal

The role of the CGC's variety designation lists

- Identify which varieties are eligible for each class
- Keep ineligible varieties from undermining quality of grain shipments
- Are updated as new varieties are registered

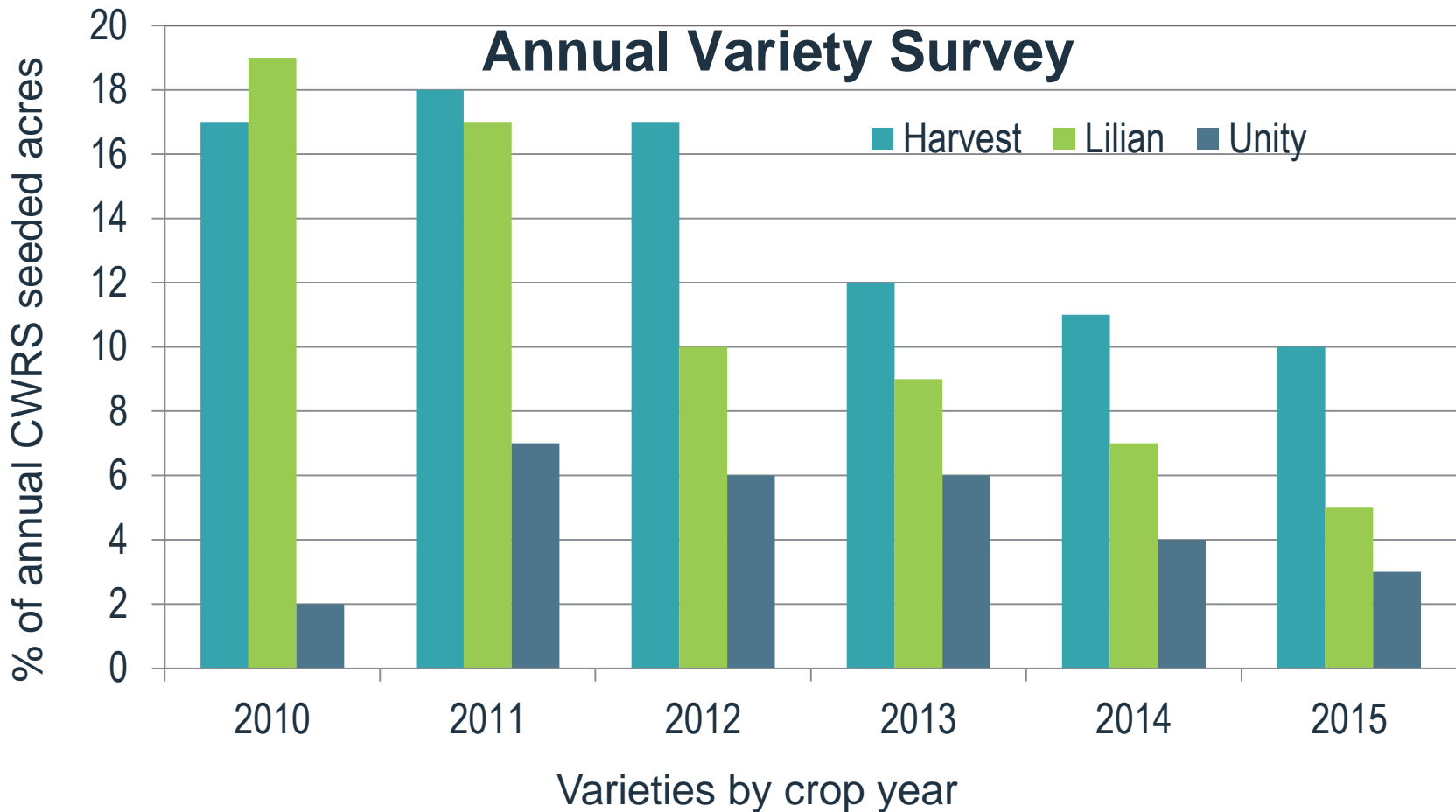
Background for modernization proposal

- Customer concerns related to gluten strength have increased in last few years
- Gluten strength is a function of wheat's glutenin and gliadin proteins and is key to bakery processing, crumb structure and gas retention in a loaf
- Not all Canadian wheat varieties have the same protein components: Quality of protein just as critical as Quantity



Seeded acres

High number of acres grown of 3 specific varieties in CWRS class



Background for modernization proposal

- Growing season, environmental conditions contributed to the problem
- PRC-WRT continually adjusts the check varieties for benchmarking
- Historically, varieties have not been reviewed once assigned to a specific class
- Potential for different classes of wheat to be marketed as producers desire yield potential of unregistered varieties

Objective of the modernization proposal

Core principle

- Canada's wheat classes are a critical part of the total grain quality assurance system

Rationale

- Provide a more consistent and balanced functionality
- Increasing demands for more flexibility by stakeholders

Objective of the modernization proposal

Objective

A modernized wheat class system which will:

- Meet Canada's wheat production and handling needs
- Address processing and export needs
- Ensure a consistent quality profile in each class

Resolve the quality parameters of the CWRS class

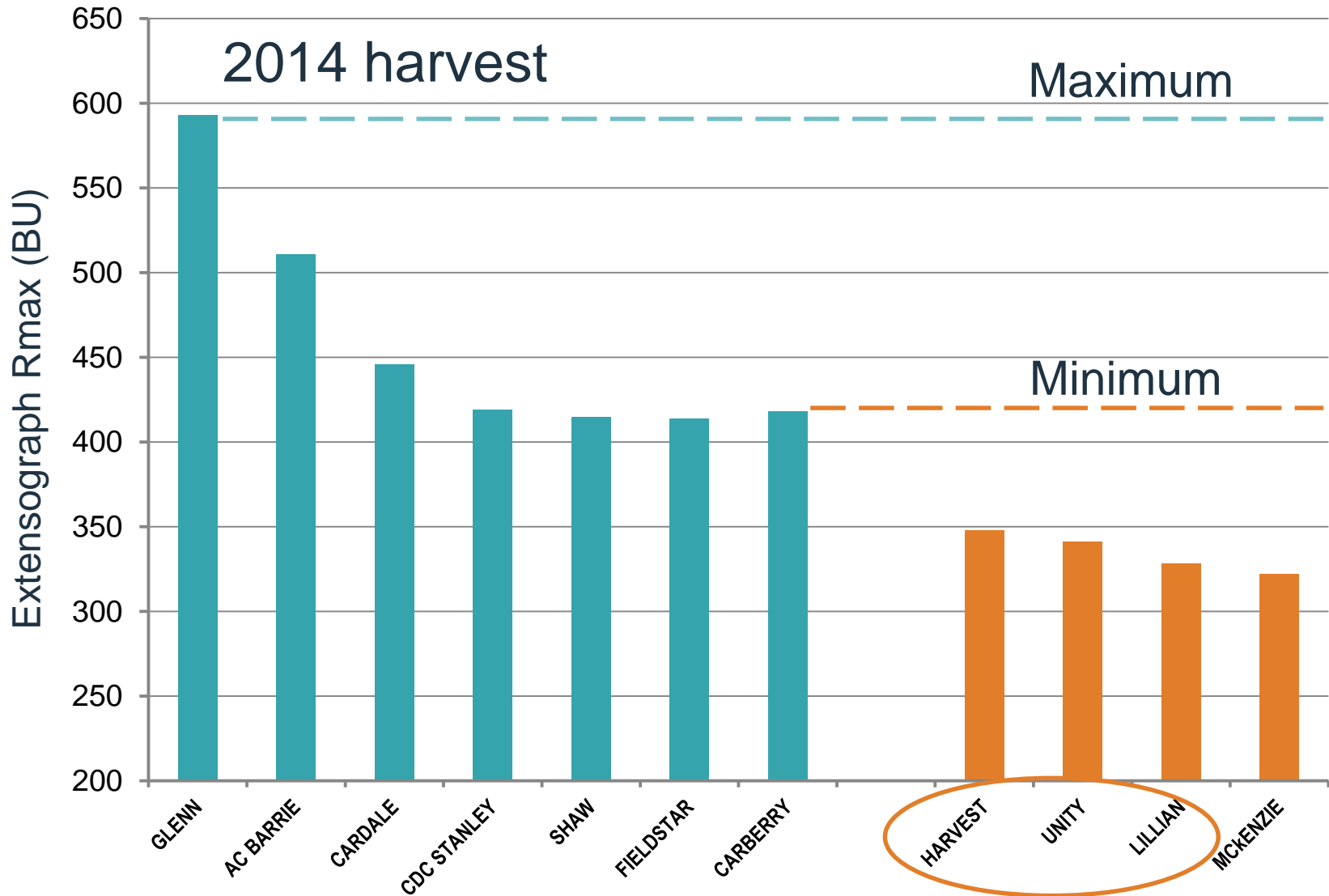
Objective

Protect CWRS quality and consistency and ensure new varieties meet requirements for milling performance, dough strength, protein quantity and end product quality

Quality parameters of the CWRS class

Gluten strength	Western	Central	Parkland
High maximum	Glenn	Glenn	Glenn
Medium level	BW965	BW965	PT472
Minimum level	Carberry	Carberry	Splendor PT772

Quality parameters of the CWRS class



Resolve the quality parameters of the CWRS class

Process

The Canadian Grain Commission will:

- Continue to thoroughly examine the PRC's quality data of cultivars recommended for registration
- Use this data for assigning class designation

Resolve the quality parameters of the CWRS class

Process (continued)

- Review varieties presently classified as CWRS to ensure they still meet end-use functionality
- Transition any existing varieties into a different class as appropriate

Resolve the quality parameters of the CWRS class

Result

- Greater predictability and uniformity in the registration process
- Guarantee greater consistency within the CWRS class

Propose: Develop a new Canada Western Milling Class “Canada Northern Hard Red”

Objective

- Develop a new western Canada milling wheat class to address changing customer requirements and farmers’ desire to grow unregistered varieties

Process

- Implement Faller, Unity and Conquer as the initial check varieties

Propose: Develop a new Canada Western Milling Class “Canada Northern Hard Red”

Result

- Cultivars will have good milling quality and good water absorption, but lower gluten strength than both the CWRS and CPSR
- Protein content will span a broad range

Interim wheat class

- Additional wheat class for 2015/16
- Eligible varieties are Faller, Prosper and Elgin ND
- Temporary

Consultation feedback to proposal

- Took place from February 20 to April 20, 2015
- Received 45 written submissions (representing 150 organizations)
 - Producer and commodity organizations
 - Seed growers and seed companies
 - Plant breeders
 - Grain handlers and marketers
 - Government departments
 - Domestic and international end users

Wheat class review (consultation)

- Strong support to protect quality, consistency and end use performance of CWRS and CPSR
- Main focus was the review of the CWRS and CPSR classes for parameters
 - Identify varieties that are critical to move quickly
 - Identify varieties that may require further testing

Wheat class review (consultation)

- Transition and implementation period
 - Carefully managed, clear procedure to be communicated to entire wheat value chain

Consultation feedback

- New wheat class
 - Cautioned not to make decisions until further information on potential markets, value and grades
 - Six-month extension until market scan is complete and reviewed
- Eastern classes, general purpose and other classes to be reviewed later

Western wheat classes and grades

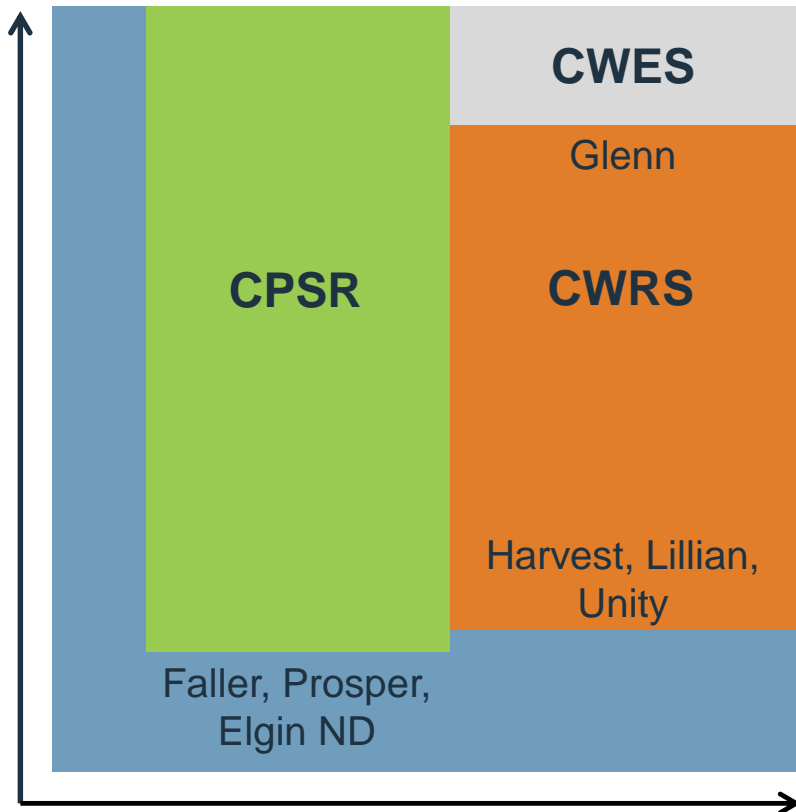
Today										
CWAD	CWRS	CWHWS	CWRW	CWSWS	CPSR	CPSW	CWES	CWF	CWGP	CWIW
1	1	1	1	1	1	1	1		1	1
2	2	2	2	2	2	2	2		2	2
3	3	3	3	3	CW Feed	CW Feed	CW Feed			3
4	CW Feed	CW Feed	CW Feed	CW Feed						CW Feed
5								Removed August 1, 2016		

August 1, 2016									
CWAD	CWRS	CWHWS	CWRW	CWSWS	CPSR	CPSW	CWES	CWSP	CNHR
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
4	3	3	3	3	CW Feed	CW Feed	CW Feed		3
5	CW Feed	CW Feed	CW Feed	CW Feed					CW Feed

Existing class profile (gluten strength vs. protein)

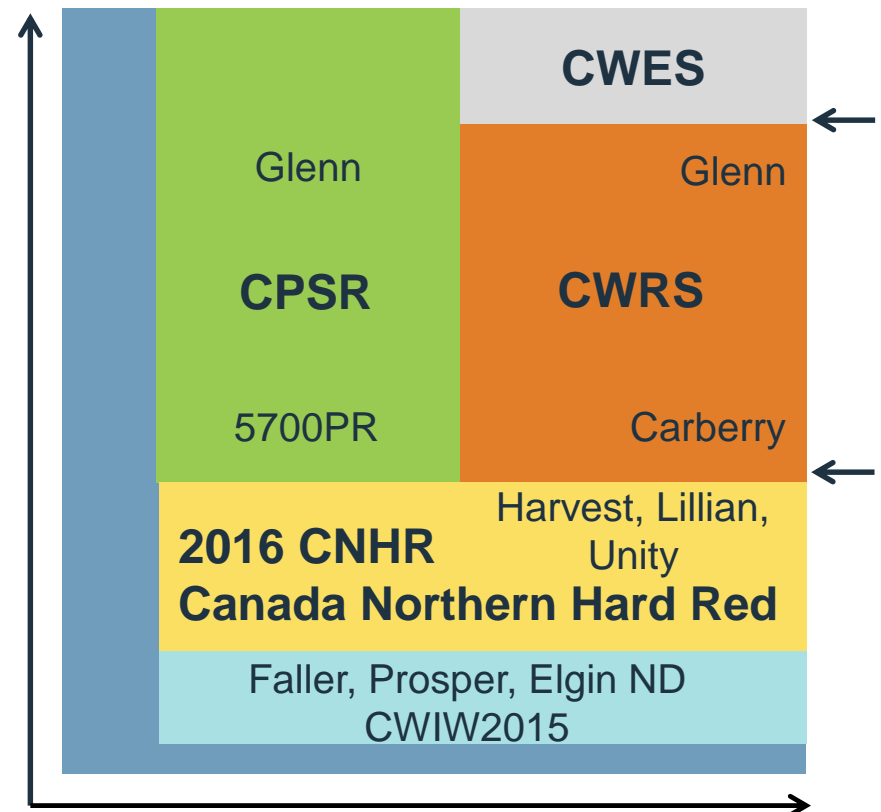
Current:

Hard Red Spring Wheat Canada vs U.S.



Proposed:

Hard Red Spring Wheat Canada vs U.S.



Note: U.S. HRS in blue; chart for illustration purposes only

Varieties designated to Canada Northern Hard Red Class

CWRS - represents 20% of current acreage in 2015			
AC Cora	Alvena	Harvest	Neepawa
AC Abbey	Alikat	Kane	Park
AC Eatonia	CDC Osler	Leader	Pembina
AC Michael	Columbus	Lillian	Thatcher
AC Minto	Conway	McKenzie	Unity
			5603HR

CPSR			
AC Foremost	AC Taber	Conquer	Oslo
AC Crystal (August 1, 2019)			

Varieties will be designated to CNHR class as of August 1, 2018. Will impact spring 2018 seeding intentions.

Next steps - completed

- Evaluated varieties to ensure they meet the new quality characteristics for their class
- Identified critical varieties to be moved where we had existing information
- Identified varieties and notified owners where further testing is required

Steps remaining

- Implement Canada Northern Hard Red class and Canada Western Special Purpose classes effective August 1, 2016 with accompanying grade schedules
- Proceed with transition process for varieties effective August 1, 2018
- General Purpose class eliminated August 1, 2016. However, its varieties will now enter the Special Purpose class where no quality parameters are specified

Steps remaining

- Canada Feed class will be eliminated, August 1, 2016
- Interim wheat class will be eliminated, August 1, 2016
- Ongoing consultations and discussions with value-chain stakeholders
- www.grainscanada.gc.ca

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