Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

Canada

What We Heard:
Crop Variety Registration in Canada

OPTIONS FOR THE FUTURE

What We Heard: Crop Variety Registration in Canada

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INTRODUCTION

Variety registration (VR) is a regulatory requirement of the Seeds Act which governs the regulation of the seed industry for most of the major crops grown in Canada. The VR system ensures that information is available to the regulator to prevent marketplace deception; facilitates seed certification and international trade in seed; and allows for the tracking and traceability of varieties in the marketplace. It also supports the grain quality assurance system for multiple crops and focuses on delivering the end-use qualities desired by domestic and international grain buyers.

A responsive and efficient seed regulatory system has contributed to the success of Canada's crop production sector for more than a century. However, it is important that the system is reviewed to ensure it keeps up with current science and the evolution of the sector. Canada's approach to VR continues to support our focus on high quality and consistent crop production, encourage innovation in variety development and balance the interests of producers and the other members of crop value chains.

In support of the transformation of the crop sector, which includes changes to the marketing and end uses of crops, shifts in research investment priorities, and changes to regulations, Agriculture and Agri-Food Canada (AAFC), in collaboration with the Canadian Food Inspection Agency (CFIA) and the Canadian Grain Commission (CGC), initiated a review of the VR system and its effects on the development and adoption of new seed varieties.

THE ENGAGEMENT PROCESS

AAFC, the CFIA and the CGC collaborated on an Issues and Options paper (link to paper still on AAFC website) which describes the current crop variety registration system in Canada and outlines four potential options for modernizing and streamlining the system. The options include varying levels of direct involvement and oversight of the VR system by the federal government and by private industry.

The online engagement period ran from August 16 to November 30, 2013. Representatives of Canada's crop production value chain (plant breeders, producers, processors, seed sector, etc.) for crop types currently subject and not subject to variety registration were sent an e-mail invitation to review the Issues and Options paper and complete the accompanying on-line survey. Some 140 responses were received. Those responses and the accompanying comments are the basis for this summary report. A number of industry organizations also chose to submit their responses directly to the Minister of Agriculture and Agri-Food or to departmental officials. Their responses generally mirrored the opinions expressed by online respondents.

Responses were received from representatives of a number of crop value chains including canola, wheat, rye, triticale, pulses, barley, oats, soybeans, tobacco and forages. Some respondents represented multiple crop value chains.

KEY FINDINGS

Respondents were asked to outline the advantages and disadvantages of the current VR system.

The advantages included:

- provides assurance that the variety will meet specific market criteria;
- supports seed certification, and varietal identity and traceability;
- provides independent, scientifically sound data allowing comparison of important agronomic and marketing traits, thus supporting farmers' decisions as to which variety is best suited to their operations; and
- is continuously reviewed to adapt to industry and producer interests.

Most of the disadvantages of the current system that were noted clustered around a few key themes:

- an outdated holdover from the past when small farms and elevators were the norm;
- cumbersome and complicated review system; and
- slows the speed at which new varieties are commercialized and made available to producers.

Respondents were asked to indicate their preference among the four options presented in the Options paper:

- OPTION 1 – Allow the flexibility inherent in the current VR system to emerge
    - 37% of respondents supported

Overall, 57% of respondents supported varying options for reform, as follows:

- OPTION 2 - Streamline regulatory process by requiring that all crops meet minimum registration requirement with the option for some crops to have merit assessment through an independent assessment process
    - 27% of respondents supported

- OPTION 3 - Streamline regulatory process by maintaining a minimum level of federal government oversight (similar to the current Part III), and eliminate any merit assessment or performance data under the VR system

    - 17% of respondents supported

- OPTION 4 - Withdrawal of federal government oversight role in VR, allowing industry or third parties to assume these functions

    - 13% of respondents supported

Respondents supporting the first three Options agreed that the federal government should continue to have a role in the VR system. However, opinions varied as to what exactly that role should be. Other respondents selecting Option 4 did not support a continuing role for the federal government.

Detailed Responses

Where do you live? If you represent a corporation or an association, where is it headquartered in Canada?

Response	Chart	Percentage	Count
British Columbia		1%	2
Alberta		21%	29
Saskatchewan		23%	32
Manitoba		16%	23
Ontario		26%	37
Quebec		8 %	11
New Brunswick		4 %	5
Northwest Territories		1 %	1
	Total Responses		140

Given the changes to the crop production sector in Canada highlighted in the engagement document, should Canada's approach to variety registration also change?

Response	Chart	Percentage	Count
Yes		53%	74
No		47%	65
	Total Responses		139

Questions for Discussion

Respondents were asked to provide specific comments concerning a number of issues related to the variety registration system today and in the future. Selected individual comments are provided for illustrative purposes only.

What advantages and disadvantages does the current variety registration system bring to the Canadian crop sector, nationally and internationally? To the particular crops that you are most involved with?

Advantages:

"The current system provides for trusted, reliable agronomic and performance data which informs the production choice for all crop types."

"For wheat, current system is valuable because we simultaneously conduct merit assessments as well as assign market class designation for candidate cultivars. This is an innovative approach that helps overcome our proximity to many market destinations as we can get new cultivars to market at the same time as other countries, but with both performance data and market class. Other countries such as the U.S. and Australia do not have this advantage."

"Seed growers and our farmer customers can't afford too many mistakes, so good solid data is necessary and three years is barely enough for a true test drive. The fad these days is high yield, but quality as we understand it sells. Nearly every country worth anything bets not so much on volume but quality."

Disadvantages:

"The process takes WAY too long. If the data is available about a seed variety in the United States, the United Kingdom, Australia, or similar places we should use their data and accept the seed right away. Why waste another 10 years retesting to get the exact same results?"

"For wheat, the current restrictions on the functionality for the different classes are too restrictive and when a new variety has a functional property which is unique, but different to the 'standard', it is not approved. This variety then is not planted commercially and disappears. While the current system does maintain a 'quality standard', it does not foster the development of innovative products for processors and further value added processing and sale. Too much emphasis on the agronomics and not enough on value added."

Several respondents questioned the need for a formal system, given the experienced and well-informed producer base in Canada.

"Patronizing, as it assumes producers cannot assess the value of a good or poor variety."

"It's not the '60's anymore, and most of those countries which can afford Canada's wheat have developed infrastructures where they can analyze/confirm what they're buying, or demand clarification before purchase."

Please explain why Canada's approach to variety registration should not change.

There was consensus among supporters of the current system that it includes sufficient flexibility and, as a result, is evolving on its own:

"Recent revisions to the current VR system involved >10 years of consultation to reach consensus and are just now being slowly implemented. This system needs a chance to emerge because revisions involve a lot of consequential impacts (some unintended) …"

"It has successfully and consistently provided producers with crops that are well adapted to production and market conditions."

Other respondents attributed some of the criticism of the current system to a lack of knowledge on the part of many value chain members.

"There is a profound lack of understanding of the current system and how it adds market value and even opens new markets. There are 9 classes of wheat so the comparisons to a crop like canola or corn, where there is really one or two end-uses is seriously flawed. Farmers and end-users demand high and consistent performance, which is only accomplished through proper merit assessments and end-use quality testing. Reform the current system as needed but retain merit testing and market class designation by retention in Part I."

Still others reiterated a number of the advantages put forward in response to the previous question:

"Most countries we compete with have a form of peer review and approval for new varieties. Considering our miserable location on the globe, we only truly get one chance per year. We have to do a lot of things right and on time. The somewhat clumsy to outsiders review system over the years has made us a global force. Too short a season, too dry, and too wet, plus a long way to markets spells a need for quality."

Please explain why Canada's approach to variety registration should also change.

Several respondents reiterated the notion that producers are more knowledgeable today and do not need the extra "backstop" the current VR system provides.

"Variety registration should change because we are no longer in an age where farmers need protection from unscrupulous seed companies for the major crop commodities. There is ample competition and considerable resources spent on performance testing. There may be a role in more minor commodities."

"Market demand should dictate variety decisions. I agree that health and safety, as well as purity/ distinctness, of new varieties need to be evaluated when applicable, but economics of growing a specific variety should drive decisions when safety/health are not an issue."

Others viewed the current system results in reduced innovation and competitiveness.

"Commodity markets have become very competitive and farmers depend on reducing production costs as much as possible while maintaining, or improving upon the quality of their products. Recognizing and being in the position to quickly react to new market opportunities are vital to remain competitive. Hence, farmers need to have access to innovative technology in the form of new varieties quickly. The current system is cumbersome and slow, and presents a barrier."

Please explain your views on the appropriate roles for the federal government and private industry in the VR system.

Respondents generally agreed there was a role for the federal government in the VR system, but opinions varied as to what that role should include.

"Federal oversight is necessary to minimize contamination with inferior varieties that will jeopardize our place in international markets."

"The federal government should provide sober, unbiased scientific oversight and guarantee to our overseas customers the quality, purity, viability, safety, and integrity."

"I believe that the role of government should be restricted to ensuring minimum standards as suggested under Option 3, and believe that the crop value chains are very able and sufficiently organized to develop systems that meet the needs of their members better than the current system does."

"Je crois que le système d'enregistrement n'est plus utile et que ni le gouvernement ni les semenciers doivent s'astreindre à mettre des efforts dans un système qui n'est pas efficace. Les semenciers auraient tout avantage à consacrer leurs efforts à développer davantage de nouvelles variétés plus performantes plutôt que devoir fournir du temps et de l'argent pour faire fonctionner le système actuel d'enregistrement. "

As for the private sector's role, one respondent noted:

"Increase financial and HR support and participation in Recommending Committee work, and in the required performance testing, and also in crop sector value chain consultations.

If none of the proposed options meet the requirements or objectives you view as critical to the performance of Canada's crop production system, what changes would you or your organization propose?

Only a handful of respondents took the opportunity to propose alternative models to the four presented in the Options paper. However, several crop-specific organizations proposed alternative models for their particular crops. Most of these models proposed splitting varieties of the same crop into different tiers (e.g., retain malting barley varieties in Part I, place feed barley varieties in Part III).

For example, one industry organization proposed that the mandatory merit criteria for western wheat varieties be limited only to those relating to quality and human health and safety. Agronomic and disease-resistance information would still be submitted as part of an application for variety registration for new wheat varieties, but would no longer be part of the merit assessment process.

Another industry organization proposed a similar singular focus on quality for registration purposes, with the establishment of a voluntary, industry-led performance trial system similar to what is currently in place for western canola. These independent trials would be used to generate agronomic and disease-resistance performance data. Furthermore, under this proposed model, seed developers could bring registered western wheat varieties to market for use as feed or sold on a spec basis in advance of being assigned into a marketing class by a group of technical experts. This model is based on the approach that has been used in Australia since 2011.

If your position is that Canada should not have a formal variety registration system, what, if anything, should take its place? In your view, what would be the benefits/ risks?

Those who provided responses to this question were primarily supporters of Option 4. Several commented that having no federal government oversight of the VR system would be similar to the approach used in the United States, which they considered less costly and burdensome.

Others favoured an approach where VR oversight would be undertaken on a fee-for-service basis by a third party, like the Canadian Seed Growers' Association (CSGA).

Although another respondent speculated that the best VR system might be no system at all, they acknowledged this might lead to a number of inferior varieties coming onto the marketplace. However, the respondent noted that seed companies' reputations would quickly be called into question should this occur, so they would have a built-in incentive to ensure that it did not happen.

Please provide any additional viewpoints or considerations concerning Canada's crop variety registration system (e.g. role and operation of Recommending Committees). Please explain your answer with examples, as appropriate.

Many of those responding to this question directed their comments at aspects of the VR system that are currently under the purview of the crop specific Recommending Committees.

For example, several suggested that the number of years of performance testing be reduced. For new western wheat varieties, it was suggested the number of quality test parameters be reduced in the first year to a more manageable number – from dozens to perhaps five or six. Tests for some variables (e.g., flour colour) would need to be done only once, since this did not vary appreciably over the years.

One respondent noted that the requirements of the current VR system, which some consider to be overly strict, have resulted in the development of varieties with resistance to certain diseases, like fusarium head blight. In this respect, the "discipline" imposed by the current system was an advantage over other countries' approaches.

"Testing would focus on key agronomic traits and output traits important to end users. All results should be public and if the variety meets the specs for the class it gets registered - period. This should no longer happen by vote of the Recommending Committee for individual varieties as there is far too much inside interest…and politics involved. The committee decides on the acceptable specs ahead of time and if those criteria are met, the variety is registered. This is a simpler process and still provides a framework to make sure a variety fits a market class and then the information available from the pre-registration screening allows producers and end users the basis to decide if the variety has a specific fit for their needs."

« Les CR doivent jouer un rôle prédominant dans l'enregistrement des variétés mais le gouvernement doit donner des balises à ne pas franchir, surtout au niveau innocuité et salubrité. »

Several respondents commented on lessons that could be learned from the removal of kernel visual distinguishability (KVD) requirements by the federal government in 2008. It was pointed out that the benefits on genetic gain in wheat are only now starting to play out and that sufficient time should be given to allow the benefits of removal of KVD and the 2009 changes to the VR system to play out.

"There seems to be a misconception that the current VR system is somehow limiting farmers access to "super varieties." This is simply not the case. However, there is a case to be made that restrictive quality requirements often had an impact on candidate lines being supported. An example of this is the KVD issue. The removal of KVD and addition of the General Purpose class has helped to increase options for industry and producers and address some potential market opportunities, e.g. markets where the traditional Canada Western Red Spring wheat quality requirements are not necessarily needed."

Next Steps

AAFC, the CFIA and the CGC are currently reviewing the results of this engagement with a view to informing the development of a streamlined and modernized VR system. Stakeholders from Canada's crop production sector will be notified in a timely manner of any changes that could have an impact on Canada's VR system.