



**Enhancing Competitiveness Through Innovation  
A Submission to  
The House of Commons Standing Committee  
On Agriculture and Agri-Food  
By  
The Canadian Seed Trade Association  
March, 2009**

*“Productivity alone is no longer able to sustain Canada’s comparative advantage. Innovation is key to enhanced competitiveness and has the potential to improve the future of the sector while benefiting producers.”<sup>1</sup>*

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**Seed Driven Innovation:  
The Foundation of  
Competitiveness**

*Innovation is the foundation of competitiveness, and innovation starts with the seed. Plant breeding and research brings new technologies to farmers, and new attributes and quality to consumers*

The Canadian Seed Trade Association is very pleased to have the opportunity to present its views on competitiveness to the House of Commons Standing Committee on Agriculture and Agri-Food.

CSTA’s mission statement commits our association and its membership to foster an environment that contributes to the success of our members and their customers.

Innovation is the foundation of competitiveness, and innovation starts with the seed. Plant breeding and research brings new technologies to farmers, and new attributes and quality to consumers. For example:

- Innovation delivered through seed brought canola to Canadian agriculture and all of the food and feed benefits associated with it
- Seed driven innovation has delivered crops that are increasingly resistant to diseases and pests. That, combined with herbicide tolerance, reduces crop risks, lowers costs for farmers, and reduces the pesticide load on the environment
- Plant breeding and research is improving food quality for consumers, delivering beneficial fatty acids and anti-oxidants to improve health
- Plant products now make up a large part of many non-food products, not just biofuels, but plastics, foam fillers, candle wax, lubricants and paints, solvents and cosmetics just to mention a few

Seed Driven innovation helps farmers to be more productive; to reduce input costs; improve and enhance the environment; and to capture new market opportunities to improve Canadian agriculture and agri-food’s competitive position in the world.

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<sup>1</sup> AAFC discussion document: “Next Generation of Agriculture and Agri-Food Policy: Innovation and Science” 2006

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## The Canadian Seed Sector – An Overview

*The Canadian Seed Sector contributed over \$3.9 billion to the Canadian economy in 2007, and employed over 14,000 Canadians.*

The seed industry in Canada makes a very strong contribution to the economy – over \$3.9 billion in 2007. A study recently commissioned by the CSTA also found that our industry employed over 14,000 Canadians in 2007. More than 3,000 were highly-skilled plant breeding staff including scientists, biotechnologists and technicians. In addition, a large number of these jobs are located in small regional centres and rural communities.<sup>2</sup>

The Canadian Seed Trade Association brings together 130 member companies who are engaged in all aspects of seed research, production and marketing both domestically and internationally. Our membership ranges from those who sell garden seed and herbs to large western grain handlers; and from small family-run businesses to large multinational corporations.

In 2007 our member companies invested \$56.1 million in research and development. That is 6% of the total retail sales of these companies, and 26% of their combined operating budgets.

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## Creating an Environment for Innovation

*Canadian agriculture and agri-products have benefited from both public and private sector research and plant breeding. It is important that both continue*

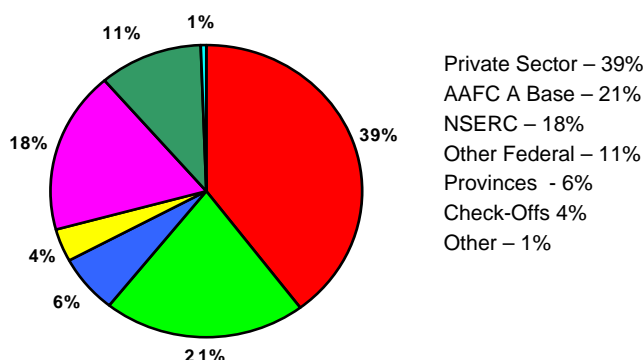
*The private sector accounts for 39% of total investment in plant research and development in Canada, and requires a positive environment to maintain and expand that investment.*

Seed is the primary driver of agricultural innovation and the agricultural economy. By creating an environment that enables and promotes investment in seed driven innovation, the government will be providing an economic stimulus to the entire agriculture and agri-products sector.

Research and plant breeding are critical to innovation in agriculture and agri-products. Canadian agriculture and agri-products have benefited from both public and private sector research and plant breeding. It is important that both continue, and that the positive public/private sector cooperation demonstrated by the canola industry, for example, should be encouraged. Canola was developed by University and Government of Canada breeders and now benefits from about 75% of total private sector research spending.

CSTA supports continued and increased funding for public sector plant breeding and research. However, as demonstrated in the graph below, the private sector is playing a very strong role in research and development, and requires a positive environment to maintain and expand that investment.

**Figure 1: Investment in Plant Research and Development, 2007**



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<sup>2</sup> The Value of the Canadian Seed Sector to the Canadian Economy, June, 2008  
Prepared for the Canadian Seed Trade Association by AgGenuity Consulting Inc. and AgBioT Research Consulting Ltd.

## **A Flexible, Adaptable and Enabling Regulatory Environment**

*The current regulatory system for seed is outdated, and the process for regulatory change is cumbersome and slow to respond to the changing needs of innovators, farmers, end users and consumers.*

*Canada is one of the only “developed” countries that has not upgraded its Plant Breeders’ Rights (PBR) legislation to conform with the 1991 convention of the UPOV (International Union for the Protection of New Varieties of Plants).*

*Canadian seed developers don’t have access to the same intellectual property protection tools that are available to their competitors*

A requirement of both the public and private sector is a flexible, adaptable and enabling regulatory environment. The agriculture and agri-product marketplace is changing rapidly. Windows of opportunity open and close very quickly. However, our current seed regulatory system is outdated, and the process for regulatory change is cumbersome and slow to respond to the changing needs of industry innovators, farmers, end users and consumers. That puts our agricultural sector at risk of missing opportunities. For example:

- The seed industry has been working on, and waiting for, changes to the system of variety registration for decades. The current system does not provide for timely introduction of new varieties, and the process for change has been both lengthy and frustrating, and, in some crops has limited producer access to new varieties.

After a decade of consultations, submissions and re-submissions, a proposed framework for a 3-part variety registration system was published in the Canada Gazette Part 1 in June, 2008. The consultation period came to a close at the end of August, and there has been nothing since.

Even if the framework proposed in the Gazette was implemented, there would be no impact, because the framework does not prescribe the placement of most crop species, kinds or types within the new system. That would require yet another regulatory change.

- Canada is one of the only “developed” countries that has not upgraded its Plant Breeders’ Rights (PBR) legislation to conform with the 1991 convention of the UPOV (International Union for the Protection of New Varieties of Plants). There has been absolutely no progress, nor have there been any attempts to modernize Canada’s Plant Breeders’ Rights, since proposed legislation did not pass through Parliament earlier this decade
- Canadian seed developers don’t have access to the same intellectual property protection tools that are available to their competitors. For example, U.S. and Australian developers can patent plant varieties, where Canadian developers cannot
- Regulatory requirements for producing, inspecting, sampling, testing, bagging, labeling and tagging of seed are also outdated, and do not take into account the changing marketplace, the environment or the introduction of new technology and equipment.

The regulatory environment must remain science based. It must also be flexible enough to anticipate and quickly adapt to new technologies and advances in both conventional plant breeding and biotechnology when the opportunities for producers and the marketplace are presented.

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## Funding Innovation

The Private sector invested over \$56 million in research and development in 2007 and plans to almost double that investment within 5 years. The main source of revenue for private sector investment in research is the sale of certified seed. The following table makes the relationship between certified seed sales and investment in innovation very clear. 96% of private sector research in 2012 will be in just three crop kinds.

**Table 1 – Certified Seed Use Vs. Private Sector Investment** <sup>3</sup>

Crop	% of Seed Used that is Certified	% of Total Private Sector Investment (Projected 2012)
Canola	92%	74%
Corn	98%	12%
Soybeans	87%	10%
Cereals	18%	2%

It is very clear that there are many beneficiaries of seed driven innovation.

- Farmers benefit from higher yielding varieties; varieties that make better use of agricultural inputs; varieties that are resistant to disease and crop pests, and varieties that can grow in less than ideal conditions. All of these translate to higher returns to farmers. Work done by the George Morris Centre indicates that 8 recently introduced varieties have generated an additional \$170 million to farmers annually.<sup>4</sup>
- Food processors benefit from seed driven innovation because it can deliver higher oil content, better protein; better malting and baking characteristics, higher starch content and other attributes that are beneficial for processing.
- Consumers benefit because seed driven innovation can deliver a healthier diet. Already seed developers have created soybean and canola varieties that help to eliminate trans fats in food; and barley varieties that can lower cholesterol.
- Society benefits from seed driven innovation for all of the reasons stated above, and because new innovation can actually improve agriculture's contribution to the health of the environment, by allowing for reduced tillage and reduced use of fertilizers and pesticides.

*Farmers, food processors, consumers and society in general benefit from seed driven innovation, but most of the costs of that innovation are borne by only about 30% of Canada's farmers.*

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<sup>3</sup> CSTA member surveys and Blacksheep Strategy Study for CPTA,

<sup>4</sup> Case Studies of Benefits Generated from Certified Seed, Al Mussell and Maria Klimas, George Morris Centre, February 2008

While all Canadians, and in fact, the world benefit seed driven innovation, because the sale of certified seed is the primary source of funds for investment in innovation, the costs of all the benefits are borne by only about 30% of Canada's farmers – the ones who regularly purchase certified seed.

### **A Certified Seed Tax Incentive**

*CSTA proposes that government implement a broad based tax incentive for farmers who purchase certified seed.*

Surveys indicate that the majority of farmers believe that certified seed delivers benefits and is a contributor to success. They also agree that sales of certified seed generate funds for investment in future innovation, and that the value of that innovation outweighs the cost of certified seed. However, in an effort to control short term costs, many producers choose not to regularly purchase certified seed.

CSTA proposes that government implement a broad based tax incentive for farmers who purchase certified seed. A tax incentive would drive increased innovation and increased competitiveness in agriculture. Additionally, it would ensure that the costs of innovation would be shared by all who benefit.

### **How A Tax Incentive Would Work**

The tax incentive proposed by CSTA would make the cost of certified seed equal to the cost of saved seed. It would involve the addition of a certified seed multiplier line to the Statement of Farming Activities form completed by farmers when filing income tax. The producer would enter the amount spent on the purchase of certified seed on line 9664 of the form and subject that amount to a multiplier.

The George Morris Centre has calculated that the multiplier required to offset the additional cost of certified seed is 1.55.<sup>5</sup>

In short, farmers would claim 155% of the cost of certified seed as an expense for income tax purposes, lowering taxable income and increasing tax refunds.

### **The Costs and Benefits**

The tax income forgone by government if the tax incentive resulted in an increase in certified seed use from the current average of 30% to 50% would be \$89.5 million.<sup>4</sup> Recall that the annual revenue increase for farmers alone from the introduction of just 8 new varieties was over \$170 million.

In fact, the economic benefit of a tax incentive could be much more. A 2004 study by Martin *et al* that considered a smaller subset of crops than this study, and only considered western Canada. It found that based on a Statistics Canada sales multiplier of .77, the indirect economic effect of a tax credit that induced full use of certified seed was \$615 million per year.<sup>6</sup>

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5 Mussell, Al, And Terri-Lyn Moore. *A Tax Incentive For Certified Seed: a Broader Assessment*. Study completed form the Canadian Seed Trade Association. May, 2007

6 Martin, Larry, Al Mussell, and Terri-lyn Moore. *Tax Incentives on Certified Seed as a Means to Achieve Sustainable Agricultural Prosperity: An Economic Evaluation-* Study completed for Quality Assured Seeds, Inc. George Morris Centre, 2004.

## ***An Additional Way to Fund Innovation***

*We urge government to consider reduced risk management program premiums for producers who plant certified seed.*

While a tax incentive for farmers who purchase certified seed would have the largest impact on the entire value chain, there are other steps that CSTA supports to fund innovation in agriculture.

Certified seed is the product of a proven process which includes third party verification of quality and purity. CSTA supports the recognition of the reduced risk associated with the use of certified seed, in risk management programs like Crop and Production insurance, and urge this committee to promote reduced risk management premiums for producers who plant certified seed.

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## **Conclusion**

Canada's seed sector already makes a substantial contribution to the Canadian economy, almost \$4 billion in 2007. Our industry employs over 14,000 Canadians. And our sector has the potential to significantly improve industry competitiveness because it drives innovation, and success in the agriculture for farmers and benefits Canadian consumers, and the environment.

The creation of an enabling regulatory environment, and the delivery of an economic stimulus package with a tax incentive for producers who purchase certified seed as its feature component, will benefit not only the seed industry, but the entire economy of Canada.

CSTA urges this committee to recommend quick action to improve the regulatory and intellectual property environments for the seed industry, and to promote a tax incentive and a better link between certified seed and safety net programming.

We submit that the cost of these actions is far outweighed by the benefits that they will bring to the Canadian economy.