

Presentation to the House of Commons Standing Committee on Agriculture & Agri-Food



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Thank you for inviting us to be here today. With me is Ian Affleck, Executive Director of Plant Biotechnology for CropLife Canada.

Although many aspects of the plant science industry have evolved since we were first established in 1952, our main purpose remains the same — providing tools to help farmers be more productive and more sustainable. Our members also develop products for use in a wide range of non-agricultural settings, including urban green spaces, public health settings and transportation corridors.

No one has to tell Canadian farmers about the impacts of climate change, as they have been dealing with them for some time. Our challenge now as an industry is to find a way to help Canadian farmers be more productive on less land in a more sustainable way than ever before. Fortunately, Canadian farmers are some of the most rapid adapters of new technology in the world. We want to talk today about what Canadian farmers are doing now to improve sustainability and address climate change, and how we can do even more in the future.

You will often hear us speaking about our industry's "technologies". Most people don't think of agriculture that way, but the pesticides that protect crops and the plant biotechnology that creates hardier and healthier crops represent leading-edge science that makes our lives better.

In addition to protecting crops, pesticides and biotech crops also have an impressive story to tell about how they help protect the environment by helping farmers use less land to grow more food, preserve biodiversity, tackle climate change and conserve natural resources.

Thanks to plant science technologies, Canadian farmers grow more crops on the very best of our country's farmland, leaving marginal land alone. This saves 35 million acres of forest, native grass and wetlands from being used for agriculture,

thus protecting biodiversity by safeguarding the habitats. Far from harming biodiversity, modern agriculture is in fact a crucial part of protecting it.

Biotech crops and pesticides help farmers better control pests in their fields. Before these technologies existed, farmers had to till to get rid of weeds. For those who may not be familiar with tillage, it's the practice of plowing a field to remove weeds. This is hard on the soil as it breaks down organic matter and reduces the soil's ability to retain moisture.

Tillage was a big part of why the 'Dirty 30s' were so devastating. Because the soil was fragile from tilling, the dry and windy conditions resulted in precious topsoil being blown away. That has changed as a result of farmers using pesticides and biotechnology in combination. Because farmers can apply herbicide they do not need to till for weeds. And because of advances in agricultural technology farmers can also leave stubble to decompose right in the field – adding organic matter back into the topsoil and improving soil consistency. As a result, the soil is less susceptible to wind and water erosion.

Reduced land use, less tillage and summer fallow, and limiting equipment passes reduces greenhouse gas emissions by 29 million tonnes a year in Canada. Fewer passes over fields with equipment reduces diesel fuel use by up to 194 million litres a year in Canada alone.

The success of biotechnology since its introduction is significant, and it is an important tool in the fight against climate change. We constantly challenge ourselves as an industry, however, to do even more to give farmers access to technology that makes the world a better place.

One of the challenges that our industry continues to face, both in Canada and around the globe, is a regulatory system that is slow to approve new traits. In

spite of annual growth in biotech crop adoption, we have not seen the predicted introduction of new crops – 80% are still in the four major field crops.

What's more, the growth we had expected to see in public sector-developed products has not materialized. 75% of commercialized products are still coming from the leading private sector technology developers.

So why are we not seeing more new and innovative products in both new seeds and in crop protection products to improve sustainability and yields even further?

The reality is the regulatory system is failing to deliver innovation to farmers.

In this timeline to commercialization, we've seen that the most time-consuming part of getting a biotech trait to market is actually outside of the technology developer's control. The cost and time involved in regulatory science and registration has increased by 50% over the last decade.

We have seen some new consumer traits approved in Canada. 'Arctic Apples,' produced by Okanagan Specialty Fruits, is the apple that doesn't brown after slicing. It should start being commercially available next year, and the possibility for cutting down on food waste is very exciting. The same holds true for 'Innate Potatoes,' produced by J.R. Simplot, which provide protection against potato bruising and browning.

This is just the beginning. There are new traits in the pipeline that will provide improved disease, insect and weed control. Others are designed to improve drought tolerance, saline tolerance & nitrogen-use efficiency. There are next-generation yield, feed efficiency and ethanol traits, and consumer benefits such as healthy edible oils and enhanced nutrition. Benefits of enhanced nutrition are

important in the developing world, where the impacts of climate change will be felt particularly hard.

The regulatory system is limiting the ability for private and public sector developers to get new traits and crops to farmers. While private sector developers can shoulder these time and cost burdens, it is very difficult for public sector developers to see their products through all the way to commercialization.

It is worth noting that we are talking about technologies that in their over two decade history have an unblemished safety record. There is a global scientific consensus on the safety of biotech crops, and neither Canada nor any other regulatory agency has encountered one documented case of harm. Biotech crops are not a health and safety issue for Canadians, nor are they a regulatory concern.

In conclusion, we are very proud of the role that our industry has played in making Canadian agriculture more productive and more sustainable than ever. Modern agriculture is very much part of the solution on climate change, both in Canada and around the world. These contributions would be greatly enhanced should Canada make a sustained effort to reform its regulatory system. Canadian farmers are eager and ready adapters of new technology. It makes sense to find a faster, more effective way to deliver them that technology, while making Canada a global centre for investment and innovation in modern agriculture. We urge the government of Canada to help us make this vision a reality.