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Submission on Bill C-474 from organic farmer Arnold Taylor

Dear Mr. Atamanenko,

I, Arnold Taylor am a 67-year old Saskatchewan-based farmer who has been practicing certified organic agriculture since 1992. I have served as Chair or President of numerous organic agricultural organizations, including President of Canadian Organic Growers (2006-2010), President the Saskatchewan Organic Directorate (2000-2006), Chairperson and Vice-President of Organic Federation of Canada (2008-2010), and current chair of Organic Agriculture Protection Fund. I am also a voting member on the Canadian General Standard Board Expert Committee on Organic Agriculture. I consider myself an expert on organic growing methods, the benefits associated with this type of agriculture, and the risks that might adversely affect it, principally genetically engineered (GE) crops. Throughout my career, I have become very familiar with the farm-level management, scientific research and international governance issues related to organic farming and GE crops and this knowledge informs my opinion presented in this statement.

Issue: As President of the Saskatchewan Organic Directorate, I oversaw our organization's effort to launch a class-action lawsuit, on behalf of all Saskatchewan-based organic farmers, against Monsanto and Bayer for economic and agronomic damages caused by their GE canola. Our organization was seeking compensation for the loss of organic canola, which was a premium and high-value crop that was also important in our crop rotations, which is the main method for weed control in organic systems that prohibit synthetic herbicides. In the mid-1990s, the Canadian Food Inspection Agency (CFIA) approved GE canola for "confined release", and was initially segregating GE and non-GE varieties, in an effort to ensure safe marketability. Had Bill C-474 been in place at this time, we would likely still have appropriate measures that ensured our organic canola industry's success selling this high-valued crop, while offering consumers choice in the marketplace. However, shortly thereafter, CFIA carelessly allowed "unconfined environmental release", and it GE canola cross-pollinated across the landscape and contaminated the germplasm of other non-GE and organic canola cultivars. Studies indicate that virtually all canola in Canada has been contaminated with GE traits (Friesen et al., 2003; Downie and Beckie, 2002) and this has adversely affected organic farmers and their markets (Smyth et al., 2002). Globally, organic standards – including Canada - prohibit the use of GE as a method,

and this has put our industry on a collision course with the introduction of GE technologies. Ultimately, our proposed class-action lawsuit was rejected, largely because it is difficult to establish who is responsible for damage caused by cross-pollination of GE crops into organic cultivars, and that is why Parliament must approve Bill C-474 to ensure that new GE crops do not adversely affect farmers and their markets. Had a measure like Bill C-474 been in place prior to the release of GE canola, farmers, their markets and Canadian agriculture as a whole would have been spared much hardship and financial loss.

Bill C-474: This important piece of legislation is long overdue in Canada. Currently, our national regulatory system is deeply flawed, and is arguably designed to benefit corporations that develop GE crops at the expense of organic farmers and consumers as a whole. Market impact must be included in the overall assessment of this technology. Indeed, history has shown us the dangers associated with a regulatory system that is solely “science-based”, and we now know that the current system is too narrow to properly evaluate the multitude of potentially adverse socio-economic impacts associated with this technology. I encourage you to sign Bill C-474 into law to protect organic farmers, our markets and food security in this country!

Flaws with current regulatory system: A number of federal departments oversee the regulation of GE crops in Canada, although the CFIA plays the lead role. CFIA does a “paper review” of GE crops, based on data submitted by the technology developer, peer-reviewed literature and expert advice, with no independent testing on the GE crops themselves because they are deemed “substantially equivalent” to non-GE varieties (Yarrow, 1999). Regulatory approaches, like the CFIA’s, which are based on “substantial equivalence” have been widely criticized as being “pseudoscientific” (Millstone et al., 1999) because they presume GE crop safety without any scientific basis and are largely based on industry data alone (Royal Society of Canada, 2001). After the commercial release of GE canola, Canadian experts now agree that this pre-release “risk assessment” failed to anticipate hazards associated with contamination, weed problems, and market harm (Kramer von Krauss et al., 2004). Indeed, a review of the Canadian experience with GE crops concludes that very little research has been carried out on the socio-economic impacts associated with this technology (Beckie et al., 2006). That the Canadian regulatory system disregards that GE crops have well known local and international market impacts is irresponsible and embarrassing. We need to introduce a mechanism to assess and safeguard against adverse market harm caused by GE crops, and Bill C-474 offers precisely what is needed.

GE Wheat: The proposed introduction of GE wheat is a perfect example of how a strictly “science-based” regulatory approach – which excludes socio-economic factors such as market harm – can put Canadian farmers and the agricultural industry as a whole at risk. Between 2002-2004, Monsanto was pushing to introduce the world’s first herbicide-tolerant (HT) variety of GE wheat, however, there was widespread opposition from consumers and Canadian export markets. Over 80% of the Canadian Wheat Board’s (CWB) buyers said they would not purchase GE wheat, due to consumer concern over the crop, yet Canada’s “science-based” regulators had no way

to include this potential threat to export sales, valued at between \$4 and \$6 billion annually (Huygen et al., 2004). Ultimately, due to the strong consumer and farm-level backlash, Monsanto deferred the release of GE wheat, but it now appears that there is renewed interest to bring this crop to market despite ongoing consumer and farmer resistance. GE wheat exposed the crisis in Canada's biotechnology regulations – and almost costs Canadian agriculture billions of dollars in lost revenue - and Bill C-474 is the fix!

GE Flax: Our markets were also adversely affected by a variety of GE “triffid” flax, which was never commercially released in Canada, but ended up contaminating seed supply and shutting down our markets in 35 countries worldwide. Flax is one of our highest value crops and, as a result of confirmation of the contamination, our prices have fallen 32%. This example demonstrates how GE crops can contaminate organic crops, causing risk and financial losses for farmers, while adversely affecting the marketability of these crops. It is important to note that GE contamination represents a risk to ALL farmers, not just organic farmers. In the case of triffid flax, all farmers in the Prairie region who export flax to Europe are now required to test for GE. This wastes time and adds costs for farmers.

Bill C-474 is needed to protect farmers against market harm, as demonstrated by the GE wheat and GE flax cases.

Holistic Approaches to Risk Assessment: I guess the major question for MPs and policy makers is - if Bill C-474 were brought into law, how would regulators assess market harm? Importantly, the Canadian Wheat Board (CWB) was developing cost/benefit analysis tools to evaluate market harm associated with GE wheat. Presumably, there would be significant interest amongst certain partners in the industry to further refine these tools in order to functionalize market assessment tools required for the success of Bill C-474.

I encourage you to also inform yourself about Dr. Ian Mauro's work on farmer-focused risk assessments of GE crops. Dr. Mauro's research focuses on holistic ways to incorporate socio-economic determinants in the overall evaluation of this technology. His work shows that the most significant farm-level risk associated with GE crops, specifically canola and wheat, is markets. While other ecological and agronomic factors are important to farmers, it is their ability to effectively market their products that is crucial, and if lost, puts them at greatest risk (Mauro et al., 2009; Mauro and McLachlan, 2008). Holistic approaches to risk assessment, which incorporate science, socio-economics, legal and cultural impacts associated with the introduction of new GE crops, are much needed and properly address the sweeping changes that this technology presents for agriculture.

Final Thoughts: I have spent most of the past ten years fighting in the courts to protect my organic farm and the organic sector from GE crops. Arguably, I should not have had to do this, as my government should have introduced adequate regulations that ensured organic farmers were not adversely affected by the introduction of GE crops.

We have lost the ability to grow organic canola because of the introduction of GE varieties. We almost lost our ability to grow organic wheat, because of the potential introduction of GE varieties, and now industry is trying to introduce GE alfalfa. Arguably, the threat to organic alfalfa is the most significant yet, because it is a soil builder that fixes nitrogen and other essential nutrients, and if it were to be contaminated with GE traits, this might destroy our way of farming entirely. Arguably, GE alfalfa is not needed in agriculture, as it really offers no benefits for conventional or organic farmers, and really is only designed to sell herbicides.

As each new GE variety is introduced, it basically removes that same crop from organic systems, which is detrimental because we rely on biodiversity in our crop rotations to ensure healthy and productive soil and crops. Furthermore, as GE crops outcross into organic systems, they destroy our ability to market our crops. Ironically, consumers the world over are demanding organic foods, and it is the fastest growing sector in the agricultural industry. Yet, our opportunities for growth and farm-level prosperity are being adversely affected by the irresponsible manner in which GE technology has been introduced, without proper regulation, into the market place.

I encourage you to inform yourselves on the risks associated with leaving the current regulatory system regarding GE crops as it is. The current system causes harm to farmers and to the food system. Canada's reputation for offering exceptional "food safety" has been tarnished by our experiment with GE crops and I encourage you to correct this. Bill C-474 is an important step in helping to correct the regulatory mistakes of the past. It will also help to ensure that organic agriculture will continue to thrive, offering present and future generations the opportunity to access safe and healthy food that require less inputs. Increasingly, the importance of organic agriculture in creating a sustainable future for global society is being recognized, and it must be protected.

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Submitted on behalf of Canadian Organic Growers



Arnold Taylor

Past President