

Is Canada Prepared for the Future of Food Security?

Global food supply chains have experienced more disruption in the past two years than ever before. For decades supply chains have operated with increasing efficiency, providing stability and support for many countries.

For most of our lives this system functioned relatively smoothly, and Canadians have been able to enjoy a wide range of affordable and safe foods year-round, even in the heart of winter. However, COVID-19 exposed that a certain level of resiliency was lost in the pursuit of efficiency and affordability.



The pandemic caused a simultaneous, worldwide disruption of supply chains, exposing a number of potential vulnerabilities in Canada's domestic food supply system. Farmers who had relied for generations on foreign labour for seasonal work were unsure whether they could access the workforce they had relied on for years, if not decades. Meat processing had become centralized to the point that a single facility shutting down reduced the country's beef processing capacity by a third, creating huge disruptions throughout the rest of the food supply chain.

Adding onto these stressors, the war in Ukraine has caused further strain, and consumers around the world are seeing energy and food prices rise at a pace that has not been seen in over 40 years. A natural consequence of these factors will be an increase in food insecurity, something that was already occurring during the pandemic, with surveys finding half of all Canadians were finding it difficult or very difficult to feed their families.

While this may paint a bleak picture, there is a starker reality here: All of these disruptions and their consequences are but a small glimpse of the kinds of effects climate change could have in the future. If Canada is not preparing itself today to meet that future head-on, then we will have difficulty weathering the coming storms.

The future of food security depends on how much resilience we build into our systems. Resilience that not only mitigates the effects of climate change, such as the adoption of drought-resistant crop varieties and reduced tillage, but that also help to lower net emissions by capturing carbon into the soil. We also need to build redundancies into where we get our food from, by supporting open and predictable trade while investing in measures that enhance domestic supply chain resilience.

Agriculture has tremendous potential to be a powerful tool in the fight against climate change. Research into developing crops with deeper root structures can help capture large amounts of carbon in the soil, increasing soil health while reducing emissions. Since agriculture is a global industry, this kind of research can be disseminated and tailored to local climates, facilitating adoption wherever feasible to create a massive impact on global emissions. But farmers often find themselves forced to deal with the costs and consequences of climate change today rather than being able to invest in resilience on their operations for the future.

That is the difficulty in building resilience into systems. Resilience often comes at a high price, potentially reducing efficiencies with no certain return on investment. They involve large, up-front capital costs to help deal with hypothetical future events. But the early days of COVID-19 also showed the consequences of ignoring resiliency, when governments discovered their PPE supplies had expired and had to scramble to acquire more while every other country was attempting to do the same.

Investing in resiliency is investing in the future.

Farmers require support and incentives to invest in resiliency on their operations, especially in light of today's high-inflationary environment. This will require collaboration between farmers and governments to leverage farm-level expertise to identify practical climate change mitigation measures that support resilience-building without hampering food production.

Food production is an essential aspect of society, and food insecurity is highly correlated with civil unrest. There is a famous saying "Any society is nine meals away from anarchy". By investing in resilience, we can ensure that Canadians never see that hypothetical future come to pass.