
Food Security for Edmonton

Is it really something we should care about?

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Biography

Becky Lipton is a consultant who focuses on strategic planning, industry development, communications, research, and program evaluation and development for sustainable agriculture. She is currently the interim executive director for Organic Alberta, works extensively with the Alberta Farmers' Market Association and is the founder and coordinator of the ASAAP apprenticeship program. Becky has a master's degree in Anthropology, and a background in small scale farming, agriculture and environmental education, rural and farm start-up research, and food security. She believes in working towards a food system that is supportive of a healthy society which must be based on and will be sustained by innovative and successful farmers.

Abstract

Could we ever achieve complete food security - where every Edmontonian has enough healthy and safe food to eat, which we can supply in a sustainable manner, no matter what? This paper explores what achieving food security would mean, what factors would influence our ability, and our decisions to do so, what is really at stake, and what the ultimate benefits would be. The paper delves into some of the big picture factors like peak oil, climate change, food miles, and other international influences we have limited to no control over. It also looks at what makes Edmonton unique when it comes to food security. Things like how much food we export, the price of food, hunger in the city, our high quality soils, our micro-climates and our farmers all influence whether and how we should be thinking about food security. Finally a strategy is presented which builds on our strengths and proactively moves us towards a healthy, resilient and sustainable future.

Discussion Paper

What is food security anyhow?

All people at all times have enough food to eat. This is generally what food security has meant in the past. Nowadays, however, it means a lot more. People have come to realize that in order to have access to food, you need to look at the bigger picture and ensure that everyone along the food system - from farmers and farm workers, to processors, distributors, retailers, eaters, and waste recyclers - is sustainable. Food Secure Canada, the national organization working towards food security, focuses on three main principles: Zero Hunger, A Sustainable Food System, and Healthy and Safe food.

So what does this mean for Edmonton? Could we ever achieve complete food security - where every Edmontonian has enough healthy and safe food to eat, which we can supply no matter what, even if we can't bring in food from elsewhere? This article will explore what achieving food security would mean, what factors would influence our ability, and our decisions to do so, what is really at stake, and what the ultimate benefits would be.

Why should we be thinking about food security?

Energy and food

Did you know that *we eat oil*? If it wasn't for fossil fuels, we would be a far cry from having full bellies. In order to make one unit of food energy it takes 10 units of fossil fuels.¹ According to a US agriculture study, 15.7% of all the energy consumed in the US, was used to feed the American people². On top of that 80% of the total increase in energy use between 2002 and 2007 occurred in the food system.

Related to the energy discussion, is the notion of *food miles*. Food miles are the distance that food travels from production to plate. Apparently, one kilogram of chocolate travels on average 8,598 kilometers and emits 1.3 kilograms of greenhouse gases³. Now, one can definitely argue that we don't need chocolate to achieve a state of food security, but really, who wants to give it up? On average, however, the distance our food travels is less troublesome than that of chocolate, but not worth ignoring - the majority of food items travel between 2500 and 4000 kilometers to get to your plate.

So besides feeling a tad guilty about using up so much energy from an environmental perspective, should we also be concerned about the energy use and distance travelled in terms of food security? Well, let's look at a few recent international trends.

Globalization and food

Every once in a while there are things that happen elsewhere in the world (drought, reduced global grain production, food gets turned into biofuels, oil prices go up) which remind us we have very *little control over our food sources*; 2007 to 2008 was one of those times. That year saw food prices go through the roof. Around the world we saw riots occur because people couldn't get enough to eat. By December 2007 the United Nations Food and Agriculture Organization (FAO) had warned that we were facing a very serious global food crisis which was threatening millions of people.⁴ Here in Canada, we were not nearly as affected as many places around the world, but we still felt the impact.

Statistics Canada showed that between April 2007 and April 2008 food prices increased way above inflation with flour increasing by 33%, macaroni by 31%, bread by 18%, and bananas by 15%.⁵ The Hunger Count report released by Food Banks Canada in 2009 showed that in Alberta there was a 61% *increase in food bank usage* in the province within just one year.⁶ Furthermore it is the healthy food that is becoming more expensive.⁷

Another factor to consider is *peak oil*. For a food system so incredibly dependent on fossil fuel energy sources, the prospect of declining world oil production is enough to make me tremble. Although the debate is raging regarding when we will reach peak oil, it is short sighted to assume we don't need to plan for less at some point.

There are lots of other reasons why we should be thinking about food security from a global perspective; for reasons such as the *drought* in California - where a good chunk of our lettuce and other vegetables come from - to *political unrest* in countries that export food to Canada. Finally, of course, there is *climate change*. Weather has a huge influence on agriculture, and as it warms and becomes more unpredictable, agricultural output will be affected. Some sources predict that by 2030, places like southern Africa and Southeast Asia will see very significant (10-30%) decreases in the production of their staple crops.⁸

In this globalized world, we are affected by other people's reactions. Countries around the world are getting nervous about not having future food security for their citizens, so they are *buying up farmland* to ensure that they do⁹. Saudi Arabia, Japan, China, India, South Korea, Libya and Egypt are amongst those countries buying up farmland in places like Uganda, Brazil, Cambodia, Sudan and Pakistan. Not only will these lands not be available to feed the population living beside them, but somewhere down the line there will also be a global impact.

What makes Edmonton unique when it comes to food security?

We grow a lot of food here in Alberta, so we should be ok right? However, we are a top *exporter in agricultural products* with the 2nd highest exports in Canada.¹⁰ Although there are no real numbers for Edmonton, predictions for both Toronto, and London, UK, set the total days the city could feed itself with the amount of food currently on the shelves, at 3 days.^{11 12}

Canada has the 2nd *lowest food costs* of all OECD member nations.¹³ At just 9.9% of our total consumer expenditures spent on food, our food is pretty cheap in the present food system. However, these figures do not take into account all of the additional costs that aren't factored into this equation. Known as *externalities*, these other costs include things like health effects (obesity, diabetes, impacts from pesticides, antibiotics and hormones in our food supply) and effects on the environment (soil erosion, loss of natural habitat, water pollution, energy used in transportation of food). In the current system, given the amount of our exports, others are benefiting from the food we grow, while we deal with the costs.

Another reason to think about food security in Edmonton is that despite our cheap food, a lot of Edmontonians *go hungry*. The Edmonton Food Bank currently provides food hampers to 15,500+ people and 250,000 snacks and meals per month.^{14 15} We also need to take into consideration *population growth*. Based on the city of Edmonton and Statistics Canada's forecasts, we will continue to be one of Canada's fastest growing cities - Edmonton took on 30,027 new people last year alone.^{16 17}

The argument is always raised that if we move towards more local food production, then *food ends up costing more*. However, what if we thought about it as a long term strategy? Imagine we focus on growing more sustainably raised vegetables in the Edmonton region. Sure they cost more, because the farmers are being paid a more reasonable and living wage. However, as the *local food economy grows*, it feeds back into our overall cities wellbeing. Jessie Radies, the founder of Keep Edmonton Original and Original Fare, has shown that focusing on local helps to build the economy, create jobs, set trends, and support the community.¹⁸ Furthermore there are programs we can utilize, such as the WIC (women infant children) Farmers' Market Nutrition Program in the US, which helps connect low-income and at-risk families with healthy, locally produced foods.¹⁹

Finally, Edmonton is also unique because of our soil, our micro-climate, and our farmers.

Take an apple and pretend it is the Earth. Now, 75% of the world is water, so cut it in quarters and throw away 3 slices. Cut the remaining quarter in half and throw one chunk away because 50% of dry land is mountains, desert etc. Now cut the 12.5% you have left in half, because that land is too steep, rocky, or wet for food production. Less than the 6% of skin you have left has to grow all of the world's food. Only a small portion of that is class 1, high quality *premium soils* that we are blessed with here in Edmonton. The city has lost 75% of its Class 1 soils since 1982.²⁰ Most of this is because of low density development and the city expanding.

On top of all this, Edmonton benefits from a unique growing *micro-climate*. With lots of water, and 140-144 frost free days in Edmonton's northeast, only southern Alberta has as long of a growing season, but with less moisture.^{21 22} Because we are a northern climate will never grow bananas or our beloved coffee and chocolate. We are covered however when it comes to the basics like cereal grains, meat, pulses (lentils, peas, beans), oilseeds (flax, canola, hemp), and a wide variety of vegetables. We can even grow a lot more fruit than most people imagine - apples, plums, apricots, saskatoons, raspberries, cherries, strawberries and more.

Finally, we have *farmers*. I could see an argument being made against moving towards increased food security if we did not have the soil, climate, or the know-how. But we do. We are blessed with being in an agricultural province. However, 41% of farmers are above the age of 55, 50% between 35 and 54, and only 9% under the age of 35.²³ So we might not have them for very long. I have discovered through running a sustainable agriculture apprenticeship program²⁴, that Edmonton does have people who are interested in getting into farming - into innovative, smaller scale, local market farming. We must be mindful though that these new farmers need years to learn the proper techniques, and get established. If we decide we need them, we had better start cultivating the conditions to grow them!

What is the risk, really?

But, as an Edmontonian, do I *really actually* need to be concerned with all of this? Well, I guess that depends on your perception of future risk. There are all kinds of scenarios that one could imagine, everything from doomsday, to more moderate and probable changes such as increasing energy prices. Above I mentioned that if the trucks stopped truckin', we could have only 3 days worth of food. But, what is the likelihood that the trucks will stop?

I personally have a lot of faith in human ingenuity and our ability to find solutions to an enormous array of problems that we face on a continual basis every day. However, change happens constantly. Some changes are small and within our control, but others are widespread, happen relatively quickly (enormous spike in world food prices within a few

months) and are influenced by factors that are too complex (climate change, financial crisis) to fully understand.

I definitely think we are going to face continual challenges as we go forward. Whether it is with water, climate change, or just increased pressure on our food production from a growing global population, as prices rise, availability decreases, and we have increasingly less control over what we have to eat, our food security will be tested. Unless we start to do something about it, that is.

However, before we get into what we could be doing, let's hear some of the counterarguments.

Counter-arguments

There are a number of people out there who would argue against pushing for a food security strategy. First of all, there are still people out there who don't believe in climate change and others who think that peak oil is still so far off that it behooves us to even be thinking about it.^{25 26 27} But really, wouldn't it be smarter of us to try and do something about it rather than just bet on it not happening?

Another counter argument is that a whole bunch of farmers trucking small amounts of food in less efficient vehicles to urban farmers' markets has a higher carbon footprint than the highly efficient regular transportation system.^{28 29} And just because it is local, doesn't mean it is grown or raised sustainably. There are environmental and not-so-environmental farmers here too.³⁰

I don't disagree with these arguments. The problem is that none of them are looking at the bigger picture. You can't just take one item out (such as transportation energy costs) and therefore proclaim that building a local food economy is wrong.³¹ Instead we need to try and put all the pieces of the puzzle together, and figure out what is best in the long run for Edmontonians. Let's have a look at what that bigger picture could be.

What can we do about it?

Food Security isn't just about avoiding risk, which in itself when done in moderation is not a bad strategy forward. But it is also about planning for a *positive, healthy and vibrant future*. So how do we get there?

First of all you start with what people want. We know that Edmontonians think that food security is important. There is plenty of evidence to support. For example, Jim Hole during one of sessions on gardening on CBC radio Edmonton AM mentioned he is seeing a significant

trend towards people growing food on balconies and in yards. There was also a 64% increase in sales at farmers' markets in the province from 2004 to 2008³², and in 2008-09, 500 people showed up multiple times at city hall to push for a food and agriculture strategy, which city council voted for.

Next you think in terms of strategy. First steps could include working with what we already have. For example, we could encourage increased sustainability in our current food production, or look at how to decrease the 38% food waste from the retail market.³³ We could also educate people about the health benefits of buying fresh, in season, and less processed foods. We could also explore the social and economic benefits of buying locally, and how that can build a stronger and more resilient community. Overall, by increasing the consumption, we also increase demand, and therefore production.

We could also be more proactive. Things that are needed for growth of the local food economy include storage, distribution and processing facilities which would help increase access to local food year round, and increase jobs at the same time. More marketing venues are also needed. This includes a 3-4 day a week farmers' market, more community supported agriculture³⁴ and creating links between public institutions (schools, universities and hospitals) with local food supplies. Policies that help preserve our amazing farmland, as well as ways for new people to start farming those lands are also key.

A first step, to set the stage, would be to develop a food charter. Toronto, Vancouver, Manitoba, and Victoria are amongst the Canadian jurisdictions that have gone down that path, and from whom we could learn from. Secondly we should set up a food policy council which brings together citizens, government and experts to advise on policy development. Calgary has recently joined other cities such as Toronto and Vancouver in establishing one. Finally a comprehensive strategy for achieving the food security objectives, as set by the food charter, the food policy council, and based on a full accounting of our current and potential resources, should take place. For this we could look to Seattle and their resolutions to strengthen their food system sustainability and security.³⁵

Fundamentally, what we need to do is come together as a community, and plan for our future. We can do it because it is diligent planning to counter future risks. We can do it because we think that it is a smart and viable way to achieve a healthy, thriving, resilient and socially, economically and environmentally sustainable Edmonton. We could also do it because, as the University of Alberta School of Business professor Mark Anielski demonstrates in his Genuine Progress Indicator, it makes us happier.³⁶ Whatever our reasons the time is ripe, and we, Edmonton, only stand to gain.

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