

WITH Alex Avery, Director of Research and Education, Center for Global Food Issues, Hudson Institute



ALEX AVERY has been the Director of Research and Education at the Hudson Institute's Center for Global Food Issues since 1994. The Center conducts research and analysis on environmental concerns surrounding food production, and uses its worldwide overview of food and farming to assess policies, improve farmers' understanding of the new globalized farm economy and heighten awareness of the environmental impacts of various farming systems and food policies. Avery represented the Center at the 1996 United Nations World Food Summit in Rome and has written on agricultural, food safety and regulatory issues for major newspapers that include the *Wall Street Journal*, *USA Today*, the *Washington Times* and the *New York Post*. Avery holds a bachelor's degree in biology and chemistry from Old Dominion University and has conducted basic plant research on drought-resistant sorghum varieties for the Sudan as a McKnight Research Fellow at Purdue University. He was interviewed January 10, 2006, following his speech to a Frontier luncheon.

Frontier Centre: Why do you think global food demand will increase exponentially in the next 50 years?

Alex Avery: Because the population is still growing rapidly and will probably peak at about 50% greater than it is today, which is a considerable increase. That's in part because of the huge increase in affluence in Asia and Southeast Asia, where nearly half the world's new population will be. It is just undeniable; the trends have already started. China is a net food importer, which people didn't think would happen until 2020 or until 2030.

FC: What leads you to believe that global population growth will level off in the next 50 years?

AA: The demographic numbers are real. These peoples' birth decisions now have demographics impacts that go on for thirty or forty years. Every developed country on the planet has stabilized at a below-replacement birth rate. The only reason the World Bank and UN projections for population growth were as high as they were through the 80s and 90s was because they made the baseless assumption that countries with below-replacement fertility rates would come back up to 2.1 children per couple, which has never happened in human history.

FC: Why are the alarmists wrong about food and resource depletion?

AA: Humanity has a thing called a brain. We didn't end the Stone Age because we ran out of stones, we didn't end the Iron Age because we ran out iron, and we are not going to run out of energy because we run out of oil. In fact, it is likely that we will end the oil age well before we run out oil or fossil fuels.

FC: Will better land use and more efficient farming be able to counter concerns about a hungrier world?

AA: Absolutely. The issue isn't anymore at all whether anyone is going to starve because of a lack of food. The issue is how much we change the world's land use and how much additional land we bring into agriculture to meet the world's food demand. At this point, we know that the world of 2050 will not only be adequately fed, it will be well fed. The question is how they will feed themselves well.

FC: What do you say to farmers who complain that there is too much food in the world, which is why prices are so low no one can make a living on farms?

AA: They are confusing too much food with too many trade barriers. Up until this point in history, they have been denied access to the burgeoning consumer markets in Asia. That is now over. The World Trade Organization is now a free-for-all of lawsuits on whose agricultural barriers are most wrong. They will topple rapidly.

FC: Could you summarize the general state of farming today vis-à-vis the environment? Is it a record we can be proud of in North America?

AA: It is absolutely a proud record. We've made many mistakes, no question about it. There have been many irresponsible farmers. But in a world where you have millions of farmers farming millions and millions of acres, that is inevitable. That will continue but overall the overwhelming record is of responsible resource use, responsible input use and increasing productivity and environmental sensitivity in concert.

FC: We are in the middle of a federal election here in Canada. Agriculture doesn't get mentioned much, but environmental concerns do. What is the danger to farmers and modern farming in general of being sacrificed on the environmental altar?

AA: The danger is that to buy votes from a confused and misinformed urban public, the politicians will sacrifice the farmers with excessive regulation and that, despite the toppling of trade barriers, Canadian farmers will still be prevented from having access to that burgeoning market. That's why educating urban consumers who hold the vote power over how agriculture is regulated is vitally important.

FC: Opponents of genetically modified food seem to be driving public opinion on the subject. Could you summarize the reasons why we have little to fear from GMOs?

AA: The opponents have already lost the war. Neither Canadian nor American consumers are at all concerned about biotech foods in any consequential numbers. That is now true in Australia, New Zealand, Brazil, Argentina, Turkey, China and India, and will be soon in Europe as well.

The war is won; they have lost. Consumers realize that this food won't grow them a third eyeball, and I think they are increasingly aware of the environmental bonuses.

FC: So the perception that they're winning is really a media thing?

AA: Absolutely it is. Look at the polls. If you ask questions the wrong way, of course you will get consumers wanting to please pollsters and saying, "Yes, I don't want this or I don't want that." But when you give them a choice in the marketplace, they have no qualms. In fact a TV program experimented on German consumers two years ago. They put up a display of biotech bread versus conventional bread and biotech French fries versus conventional French fries. The biotech foods sold more, at twenty to one, because they had a lower price. Certainly opinions have changed even more since then. When consumers were confronted with the choice and given price considerations, as they are in the real world, it became clear that everything they told the pollsters was wrong.

FC: Do you think the European Union's continuing policy of forbidding GMOs in developing countries is going to fall, too?

AA: Yes. Their reason for blocking biotech products or GMOs in the European Union is because they're faced already with unsustainable surpluses of production generated by trade barriers. They have been against biotech mainly because it was going to cost their governments even more money.

FC: How realistic is the romantic attachment to the family farm? Can you make an effective case for larger units, not necessarily controlled by a nuclear family but by shareholders?

AA: Based on the evidence, I am not convinced that corporate farming is the success model for the twenty-first century. Certainly farms will get larger, as they have for a hundred-plus years. But I think that the guy who has a financial stake in the productivity of his land and farm—the family farm model—is overwhelmingly the success model because it ties responsibility and incentives to the land. A lot of those family farms will be incorporated for tax purposes, but that does not make them corporate farms.

FC: How do farm subsidies affect agricultural sustainability here and around the world?

AA: On a global basis, farm subsidies encourage the wasteful use of poor quality land. The costs and the monies from these programs actually just get factored into land prices, because anyone buying the land knows it comes with another government check attached. In the end, farmers really don't benefit from them.

FC: Fertilizers and crop protection products like pesticides and herbicides are integral parts of modern agriculture. Does "organic" farming make any sense? Is there any value in seeking crops that are unadulterated?

AA: Not from the standpoint of a health, nutritional or environmental benefit. I were a farmer and wanted to make the most profit from my land, I might very well consider growing an organic crop. There is certainly a niche market

for it, and if ten or fifteen percent of the population is that paranoid about the food supply, farmers should take every dollar they are willing to cough up.

FC: The use of epidemiological studies to scare the public about crop protection products and fertilizers is rampant. Even though relative risk ratios and confidence levels may give a scientist little cause for alarm, they are framed for maximum public impact. How politically correct is ag-science today? How do we counter such misinformation?

AA: It is horribly politically correct. The public health community has been generating a political base for their continued funding with these scare stories, and I don't think anyone should expect that to change. The only way to combat it is with a consistent message of reality. The entire era that we have been using synthetics pesticides, fertilizers and other inputs has been the exact same era where our life spans, our health and our well-being have increased phenomenally. I think the vast majority of consumers know this in their hearts and minds; it is common sense. You just have to remind them of that.

FC: Should DDT be revived to combat malaria? Should it have been banned in the first place?

AA: Absolutely it should be revived. It is a crime against humanity that DDT has been prevented from use in countries in Africa because of elitist positions of the European Union. In fact the European Union is most culpable. They are telling countries that want to spray DDT inside huts that they won't accept their agricultural exports. That's holding a real guillotine over these people, in the form of continued rampant malaria. We know that there is one quick way to slash malaria incidence in a country, and that is to start using limited amounts of DDT in a sustainable and environmentally friendly way by spraying the inside walls of huts. Understand that DDT has a repellent property that no other pesticide we know of has. If you spray an alternative and the mosquito comes in, spends an hour or two, and then dies afterwards, he has already transmitted malaria. Whereas a mosquito that flies into a DDT-treated hut turns right around and flies back out again, and you have prevented the spread of malaria.

FC: A handful of cases of BSE or "mad cow disease" on both sides of the Canada-U.S. border provoked a catastrophic stoppage of trade in beef. How could we have handled the issue better?

AA: I don't know. I think everybody handled it as best they could. The political realities of international trade caused what happened and I don't know if there was any way to avoid it.

FC: Isn't there a possibility that we could have had health and safety protocols in place between Canada and the United States so that we wouldn't have billions of dollars in losses on both sides because a few cattle were diseased?

AA: I don't think so. Both Canadian and American farmers want to use these things for their own advantage and neither was willing to give them up. That is just the political

reality. But thankfully North America has had fewer mad-cow cases than even Japan.

FC: Many oppose the development of intensive livestock operations, yet in Manitoba properties near them have increased in value. Are such mega-operations economically inevitable? Is there any reason to be afraid of them?

AA: I don't think there is any reason to be afraid of them, especially if they are using the newest technology and managing their operations properly. There should be no physical reason for a reduction in property values. Clearly, though, with political and media rhetoric at the level it is, that can impact property values because of perceptions rather than reality. Nobody should deny that it is a real issue for property owners, but it is one that you can deal with head-on with reality.

FC: A lot of people are concerned about water quality near livestock operations. What does the research tell us? Are these concerns justified?

AA: No. The research tells us that if we grow those animals in confinement and collect and control the use of their manure, we can apply that manure onto fields at the most crop-beneficial time as well as the most environmentally sustainable time, use that resource to our advantage both economically and environmentally, and all come out in the end better as well as healthier. The sad reality is that free-range livestock and poultry production also raises environmental issues. Pigs root instinctively and tear up earth and cause erosion and water quality problems, but the other issue is human health. A lot of diseases of humanity like influenza are zoonotic diseases, ones we've swapped with livestock for eons.

FC: Residents in the east side of Winnipeg recently protested plans to build a large new hog processing plant in a nearby industrial park. Their concerns are odour and its impact on property values. How well advanced is the technology to avoid such a problem?

AA: It is perfectly advanced. I live near a poultry processing facility, and I don't even know it's there. With the technology available today, there is no reason why you can't have a processing facility or a production facility very close to residential areas and have them coexist peacefully and, in fact, synergistically. There is no reason why Manitoba should be exporting its feed resources out of the province. That is money literally flying out the door. There

is money to be made in converting that into livestock products and then adding value by processing them here in Manitoba. That is a "win, win and win" situation for all Manitobans.

FC: The province of Manitoba recently passed a water protection act that gives it extraordinary powers to intervene in land-use decisions that impact water quality. Is there a better way to achieve better water use than the regulatory method? How is it done in the United States?

AA: I don't know; that is a very good question. The problem is that regulatory and enforcement decisions, as well as zoning decisions as to where such facilities can be sited and how big those facilities can be, have been based far more on rhetoric and accusations than actual environmental data. North Carolina is a perfect example where regulatory action ran far ahead of the science indicating any problem. The state economically has paid a price in the most economically deprived areas, and that is just wrong. If you combine such development with environmental sensitivity, and we do, there is no reason we shouldn't allow them.

FC: Isn't there a model in North Carolina, and off Long Island Sound in Connecticut, and in the Green Bay watershed in Wisconsin, for the use of tradable water permits rather than a regulatory method? Can't we use market methods to reduce impacts on water quality?

AA: Market methods work, but in any market you must have credible, sound and comprehensive data for people to act in the market. My real question is, "Do we have the data to underpin those markets?" Markets only work in a knowledge-rich, transparent environment. Unfortunately, in the environmental arena there has been far too little transparency and far too little knowledge. While North Carolina, for instance, has comprehensive water quality data, I was not able to do a similar kind of comparison study in Kansas and Missouri because the state just flatly hasn't collected the data. Now what do you do? I don't know if a trading scheme would work there because there is no basis to underpin it

FC: When will your book on organic crop production be out? What will it be called?

AA: The book should be out by this summer. The title is *The Politically Incorrect Guide to Organic Food and Farming*.