

## Sustainable Agriculture: A North American Snapshot<sup>i</sup>

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I was pleased to be asked to provide a snapshot of Sustainable Agriculture in North America at this important conference. Obviously, I am more familiar with the sustainable agriculture movement in the U.S. than in Canada. However, I have made three or more trips to Canada each of the past several years to speak at events related to sustainable agriculture. I also have an ongoing relationship with the folks at FoodTrust of Prince Edward Island. So while my view is limited by my specific experiences and individual perspective, I will attempt to provide a snapshot of what I see in both countries. If you see something different, that's fine with me. We all have a bit different perspectives of things and in my opinion that's good. Together we see more than any of us individually can possibly see.

I have been involved with the sustainable agriculture movement in the U.S. almost since its beginning in the late 1980s. The current movement in the U.S. was born from the merging of three different streams of public concerns. In the mid-1980s, we were in the midst of the greatest farm financial crisis since the Great Depression of the 1930s. Traditional family farmers, faced with falling commodity prices, were concerned about persistently rising costs of fertilizer, fuel, and other commercial inputs. Rural community advocates were concerned about the negative impacts of farm financial failures on farm families, rural economies, and rural society. These two groups were joined by organic farmers who had long been concerned about the negative impacts of high-input, chemical-intensive farming methods on human health and the natural environment.

These three groups joined forces to support a provision in the 1985 U.S. Farm Bill, which ultimately was labeled low-input sustainable agriculture or LISA. The three groups all agreed that we needed an agriculture that could sustain the productivity of the land and a desirable quality of life for people – farmers, rural residents, and society as a whole – rather than an agriculture that depended on commercial inputs for its productivity, perhaps benefiting a few but at the expense of many.

The sustainable agriculture movement has come a long way since the 1980s, both in the U.S. and in Canada. My first major speaking engagement in Canada was at a Scientific Conference on Organic Agriculture in Saskatoon in 1999. In Saskatoon, I had a chance to talk with farmers from all across Canada, and I found their thinking to be very much in harmony with the U.S. farmers I knew. Sustainable agriculture has not transformed American farming from an *industrial* to *sustainable*, as many of us had hoped would have happened by now. But neither has it been a passing fad, as many others had expected and some had even hoped. The movement has succeeded in sustaining many smaller, family farms that otherwise would have failed and it has

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commanded the attention, if not the respect, of the agricultural establishment.<sup>iii</sup> Perhaps most important, it has brought new hope for the future of farming in North America.

In the early days, the emphasis of sustainable agriculture was on more-sustainable production methods. Organic farming received a lot of attention because organic farmers were early leaders in the movement. But low-input, chemical-free, biodynamic, holistic, ecological, innovative, and practical farming also became identified with the sustainable agriculture movement. In livestock and poultry, free-range, pastured, grass-fed, or hormone and antibiotic free served to distinguish sustainable farming from conventional agricultural production. Sustainable farming included all farmers who were trying to farm in ways that would sustain the productivity of the land and their preferred way of life, while making an acceptable economic living.

A lot of time and effort was spent in the early days trying to define sustainable agriculture. Some of the early questions concerning a definition were genuine, but most were simply efforts to marginalize the movement. Sustainable agriculture was perceived to be, and in fact is, a real threat to conventional, industrial systems of farming and food production. Today, no real lack of understanding remains concerning what sustainable agriculture means or what it requires – at least not among those who take the issue seriously.

Sustainable agriculture is agriculture's part of sustainable development. Sustainable development was first defined in a 1987 report of the United Nations Commission on Environment and Development, called the Bruntland Commission.<sup>1</sup> It was defined as development “which meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>2</sup> Sustainable agriculture can be defined then as an agriculture that meets the needs of the present while leaving equal or better opportunities for the future, an agriculture that is capable of maintaining its productivity and value to society, indefinitely, or an agriculture that will last. Sustainability is matter of intergenerational equity.

In order to last, a sustainable agriculture must be ecologically sound, economically viable, and socially responsible. If agriculture destroys the productivity of its natural resource base – water, air, or soil – it will lose its ability to produce; it is not sustainable. If agriculture doesn't meet the needs of society – as consumers, producers, and citizens – it will not be supported by society; it is not sustainable. And, if agricultural farms or firms fail financially, they are not sustainable, no matter how ecologically sound or socially responsible they might otherwise be. All three dimensions are necessary and no one is more important or less critical than are the others. Today in North America, it is generally understood that a sustainable agriculture must be ecologically sound, economically viable, and socially responsible, although attempts to silence questions regarding the sustainability of current agricultural systems continue.

Sustainable farmers have generally found the ecological and social challenges of sustainability to be less difficult than the economic challenge. Many found they simply couldn't compete on price with conventional producers who were willing to externalize their environmental and social costs to reduce their economic costs of production. Niche marketing became popular strategy for

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<sup>iii</sup> The agricultural establishment, as used in this paper, refers to the large corporate agribusiness firms, most agricultural commodity organizations, some of the larger general farm organizations, and most government agencies and agricultural universities, all of whom openly support the continued industrialization of agriculture.

solving the economic piece of the sustainable farming puzzle. Many consumers obviously shared farmers' concerns for ecological and social integrity of food production. Many of these like-minded consumers were found to be willing to pay the full economic, social, and ecological costs of sustainably produced food, when given an opportunity to do so. Admittedly, this sustainable niche included only a minority of all food buyers, but their numbers were more than sufficient to support the even smaller minority of sustainable farmers.

Sustainable farmers initially accessed this profitable niche market through farmers markets, roadside stands, community supported agriculture organizations (CSAs), and other forms of face-to-face marketing. Through these direct markets, farmers and consumers sharing common concerns could develop personal relationships of *trust* rather than maintain economic relationships of *suspicion*. A doubling of the number of farmers' markets in the last ten years and the persistent growth in CSAs and other forms of direct sales attest to the success of niche marketing. Most farmers marketing to local customers produced organically or by other “sustainable” methods. Today, buying *local* seems to be more popular than buying organic among those who support sustainable farmers.

More recently, farmers have begun to access higher-volume niche markets through retail food stores and restaurants featuring *locally* grown foods. These higher-volume retailers attempt to create a *sense* of personal connectedness, even though the connections are less direct and less personal. Local retailers believe that establishing connections between their customers and local farmers giving them a unique market advantage over the larger supermarket chains and restaurant franchises. These indirect connections, however, must still be considered significant by both farmers and their customers, if this strategy is to be effective. The significance of any link between farmers and eaters becomes questionable when niche markets are accessed through mainstream supermarkets, as in the case of most organic foods being sold today.

In fact, organic food provides a prime example of both the opportunities and challenges confronting the sustainable agriculture movement today. Today, many people in the sustainable agriculture movement are questioning whether organic means, or even implies, sustainability. The answer depends on the definition of organic. If organic farming simply means farming without synthetic chemicals, then organic farms are not necessarily sustainable, as is readily attested to by the decline and fall of great agricultural civilizations long before the era of agrichemicals. And, if organic means farming according to a rigid set of rules and regulations, then organic doesn't ensure sustainability any more than rigid sets of rules and regulations ensure the health and well-being of plants, animals, children, societies, or any other living organism or organization.

Historically, however, organic farming has been defined in terms of *purpose* rather than inputs and practices. Sir Albert Howard, one of the fathers of organics, emphasized *permanence* as the central purpose of organic agriculture. Howard began his book, *An Agricultural Testament*, with the assertion, “The maintenance of the fertility of the soil is the first condition of any permanent system of agriculture.”<sup>3</sup> He contrasted the permanent agriculture of the Orient with the agricultural decline that led to the fall of Rome. He concluded, “The farmers of the West are repeating the mistakes made by Imperial Rome.” Organic pioneer and publisher, J. I. Rodale, defined permanence in terms of intergenerational equity; he wrote, “The *organiculturist* farmer

must realize that in him is placed a sacred trust... As a patriotic duty, he assumes an obligation to preserve the fertility of the soil, a precious heritage that he must pass on, undefiled and even enriched, to subsequent generations.”<sup>4</sup>

The organic farmers who helped form the sustainable agriculture movement also considered the fundamental purpose of organic farming to be *permanence*: to sustain agriculture, and through agriculture, to sustain human society. However, the growing demand for organic foods during the 1990s eventually pulled organic foods out of their market niche into the industrial food mainstream. Organic farmers actually helped to develop the national organic standards, which defined “organic” in terms of a set of rules and regulations and lists of allowable and non-allowable chemical inputs and practices. The historical link between organic farming and the purpose of *permanence* was given little more than passing mention in the process.

Today, large-scale industrial producers are able to meet the minimum standards for *certified* organic at a lower cost than can most smaller *sustainable* organic farmers. Many organic producers, processors, and retailers have specialized, standardized, and consolidated control – meaning they have industrialized – to become more economically efficient. In the process, they have lost their ecological and social integrity; they have sacrificed the historic purpose and principles of organics for short run profitability. As a result, organics, which once seemed a prime opportunity for sustainable agriculture, today is rapidly becoming just another profit center within an industrial food system.

Today, issues such as globalization, corporatization, confinement animal feeding, biotechnology, and food safety, health, and nutrition are helping to expand the demand for sustainably produced foods well beyond the certified organic market. Increasingly, American consumers want to know where their food comes from, how it is produced, and who produced it. *Local* is becoming more important than *organic*, because people want food produced by someone they can trust. The story of organics is particularly important as sustainable agriculture in general moves beyond direct marketing and makes inroads into higher-volume market outlets. Will the sustainable niche market be dragged into the industrial mainstream, or will it remain true to its purpose and principles.

The new sustainable niche markets combined probably make up as much as a third of the total food market today and are still growing.<sup>5</sup> Sustainable farmers today have an opportunity to help create a new and different American food culture. They have new allies among independent food processors, distributors, and retailers who are beginning to realize they face the same kinds of challenges from a corporately controlled, global food system as do independent family farmers. Food processors and marketers are also beginning to understand that they have the same kinds of opportunities as sustainable farmers in helping to create and to benefit from a new and different food system than reconnects consumers with farmers. Together they are meeting the real needs that are not being met by the industrial, mass production, mass distribution food system of today. Together, farmers and food processors, distributors, and retailers are creating new food value chains, based on social and ethical *values*, as well as economic value.

Agriculture of the Middle, a national project in the U.S., is attempting to help sustainable farmers gain access to higher-volume markets, as a means of providing opportunities for larger, middle-

sized American farms.<sup>6</sup> The project is identifying food processors, distributors, and retailers who are willing to form alliances with groups of farmers to create new sustainable food value chains. A new formed organization, The Association of Family Farms, states, “In value chains, as distinct from traditional supply chains, the producers, processors, distributors, and retailers are partners bound by pledges and contracts that reflect shared core values: sustainability, transparency, fair distribution of profit, high quality product, and relationship with the consumer.”<sup>7</sup> The critical challenge in creating these new higher-volume value chains is in maintaining the integrity of the system, not just in terms of food quality and safety, but also, integrity of relationships – among eaters, retailers, processors, farmers, and through farmers, with the land.

Some of these new value chains will likely follow the lead of organics, drifting back toward specialization, standardization, and consolidation as means of gaining efficiency and profitability. However, notable examples exist of farmers, retailers, restaurateurs, and other who are continuing to “walk the talk.” They are remaining true to the purpose and principles of sustainability.

In some cases, the initiative comes from the retail level. For example, New Seasons Market is one of the fastest growing retail food chains in Portland, Oregon, currently operating six stores with plans to open as many as nine. As Brian Rother, co-founder and president writes, “Three families and about fifty of our friends decided in late 1999 that we wanted to create a business that we could be proud of – a company that had a true commitment to its community, to promoting sustainable agriculture and to maintaining a progressive workplace.”<sup>8</sup> New Seasons supermarkets look pretty much like any other modern supermarket, with delis, bakeries, and other amenities American food shoppers have come to expect.

Unlike some of their competitors, they are not elitist stores, typically locating in areas between lower and higher income neighborhoods and drawing their loyal customers from both. Once inside the store, the most noticeable difference is that virtually every item in the store is labeled with respect to origin and there is an organic, as well as conventional, option for nearly every food item. They recently started a new “Home Grown” program to promote items produced in Washington, Oregon, and northern California and to procure as many items as they possibly can within this region. I have visited with Brian Rother on several occasions over the past five years, the last time being June of 2005. In my opinion, New Seasons Market is still walking the talk of sustainability.

Sometimes the initiative comes from farmers. For example, Good Natured Family Farms (GNFF) is a cooperative made up of thirty-some farmers in southeastern Kansas and southwestern Missouri. Diana Endicott, who farms with her husband Mel, was the moving force in gaining access to Kansas City supermarkets. Today, they market their products primarily through Hen House Markets. Hen House is a 13-store supermarket chain operated by Ball Foods Inc., a family corporation with a long history in Kansas City that is committed to maintaining its local connections. The cooperative owns and manages the GNFF brand, which now includes an expanding line of branded food products, including beef, chicken, eggs, and milk, with other products in various stages of development.

The GNFF website states, “We have three goals: Support local farmers by providing them with a market for the food they raise, provide our customers with fresh, natural foods raised humanely, without hormones or sub-therapeutic antibiotics, and raise our beef, chicken, eggs, and milk in a manner which protects and conserves the precious resources upon which they rely.”<sup>9</sup> At recent meeting with Diana Endicott and Ball store managers, I learned that Hen House Markets had sold GNFF products totaling more than \$4 million the previous year.

Some times the initiative comes from nonprofit organizations, with an interest in promoting the common interests of farmers, processors, retailers, and consumers. FoodTrust of Prince Edward Island is such an organization, representing PEI farmers and participants in all other aspects of the food system in the province. More than 100 A&P Ontario supermarkets offer FoodTrust potatoes and spices to their customers. In addition to producing high quality potatoes of varieties specifically suited to different cooking methods, FoodTrust farmers are expected to meet a stringent set of standards for food safety, environmental stewardship, and even standards of social responsibility.

Their website states, “Today, people are increasingly concerned about where their food comes from and how it is grown. FoodTrust responds to this concern by providing an important link between you and a group of dedicated farmers and growers who produce and harvest high quality, safe and wholesome foods.”<sup>10</sup> I am particularly impressed with the commitment of the FoodTrust people to developing meaningful standards of social responsibility, rather than simply stating a few platitudes about how people should be treated in a sustainable food system. I am convinced that they remain committed to the purpose and principles of sustainability.

These are just three of many notable examples of people who are committed to creating a new sustainable food system. Others include restaurants, both upscale and family diners; institutions, such as public schools, universities, and prisons; and a wide variety of farmers' cooperative ventures. For example, more than 500 public school districts and 95 colleges and universities currently have active programs to provide U.S. students with locally grown foods.<sup>11</sup> Today, the sustainable agriculture movement stands at a critical stage of its development. If sustainable farmers can successfully access higher-volume markets, a new viable alternative to the industrial food mainstream will emerge. However if it fails to make significant inroads into higher-volume markets, or worse yet, becomes pulled into the industrial mainstream, it may take years to regain its momentum. It's too early to predict success, but neither is it logical to expect failure.

I would like to complete my snapshot with a glimpse of the horizon of agricultural sustainability. The events of the past few years have brought non-renewable energy back to the forefront of public concern. *Peak oil* is a concept based on the premise that peaks in oil production occur when approximately half of the total amount of oil in a particular oil field has been extracted, which typically occurs some 30-40 years after its initial discovery.<sup>12</sup> Beyond that point, extraction becomes increasingly difficult and costly and total production inevitably declines. *Peak oil* gained credibility when U.S. domestic oil production peaked in 1970, thirty-plus years following the peak in U.S. oil discoveries. The peak in global oil discoveries occurred in the mid-1960s, signaling a peak in global oil production around the turn of the twenty-first century.

Changes in extraction methods and uncertainty regarding Middle East oil reserve data have made precise calculations difficult, but most forecasters now predict a global peak in oil production somewhere between 2006 and 2010. Even Exxon-Mobile has forecast a peak within five years.<sup>13</sup> After the peak, oil production is expected to decline an average of 2-3% per year, dropping by about 70% over the next fifty years. Even if major new oil fields were discovered next year, which is highly unlikely, those fields would not reach peak production for another 30-40 years. The world quite simply must learn to live with less oil. Peaks in other fossil energy sources, including natural gas and coal, are expected to follow over the next few decades, as they are found to be inefficient substitutes for petroleum.

The agricultural establishment has responded by promoting biological energy sources – ethanol, bio-diesel, methanol, biomass – with little apparent thought to the dependence of industrial food production on the dwindling supplies of fossil energy. If agriculture were able to convert all of the solar energy captured by green plants in the U.S. into fossil energy substitutes, we would still have to cut our fossil energy use by one-third, and we would have no solar energy left to produce food. In reality, American agriculture harvests only about 35% of total solar energy captured by plants, and food production claims about 17% of total U.S. fossil energy use, *in addition* to the energy captured from the sun. It is also questionable whether ethanol and bio-diesel can actually produce more total energy than the *fossil* energy consumed in their production.

When crops produced by the current fossil-energy dependent, industrial agriculture are used to produce fuel for automobiles our food systems, our economy, and our society are made less secure. If instead, existing sustainable production methods were universally employed throughout the food system, fossil energy used in U.S. food production could likely be cut by as much as one-half.<sup>14</sup> If sustainability were made a top research and development priority, food production might become energy self-sufficient within the next fifty years, saving 17% of current fossil energy use. But, energy gains from agriculture simply cannot replace the inevitable decline in fossil energy.

Faced with the imminent inevitability of peak oil production, our first priority should be to make our food systems more secure, meaning less dependence on the declining supplies of fossil energy. The only long run food security for any nation is in the natural productivity of healthy, regenerative, organic soils, which can produce food without nonrenewable amendments, that is, a sustainable agriculture. Even if it becomes more profitable to produce fuel than food, how secure is any nation that chooses the luxury of automobiles over the food security of people? The sustainable agriculture movement may ultimately succeed out of absolute necessity, as the only means of providing long run food security for an increasingly hungry world.

However, I believe the highest priority for the sustainable agriculture movement in the immediate future should be developing and implementing systems of production and distribution that are socially responsible. Social responsibility means meeting the needs of people as members of families, communities, nations, and of global society, not just as individuals. Society is not just about individual people but also about relationships among people. Economics deals with people as collections of individuals, with little regard to the integrity of relationships among people. Regardless of whether the symptom is environmental pollution, exploitative trade, food insecurity, or depletion of fossil energy, people are beginning to understand that lack of

sustainability is rooted in the current economic system, which degrades and exploits both its natural and social environment because it lacks any sense of moral or ethical integrity. Social responsibility requires relationships of integrity.

Some may argue that people will never agree on the principles that define relationships of integrity. Admittedly, people have different values, but most people agree on core principles. Principles are the subset of values that we all share in common; things about which we agree because we know them to be true.<sup>15</sup> For example, the Institute for Global Ethics has questioned people of many different cultures, religions, and nationalities in many countries of the world regarding their ethical principles.<sup>16</sup> They have found that people of all cultures, religions, and nationalities agree on several moral or ethical principles, although they disagree widely on values.

The Institute lists five principles in which people of all cultures share a common sense of their rightness: honesty, fairness, compassion, responsibility, and respect. All civilized people everywhere seem to agree that we should be honest and trustworthy, fair and just, compassionate and caring, responsible and dependable, and respectful and tolerant in our relationships with others. We just don't trust others to respond in kind. These core principles, if practiced, could go a long way toward ensuring the integrity of relationships within families, communities, nations, or global society. Social integrity is the condition of wholeness, completeness, and soundness that results when all of the essential principles of social responsibility are expressed in harmony and balance.

Just as we share a common sense of right relationships, we also share a common sense of happiness and quality of life, and we know that happiness is about far more than just income or wealth. Our increasingly affluent world has resulted in growing inequities, conflicts, and misery. Increasingly, people are beginning to listen to their common sense of what does and does not make them happy or enhance their overall quality of life. They are beginning to realize, it is not a sacrifice to care and to share because *compassion* and *fairness* make our lives better. They are beginning to understand, it is not a sacrifice to be good stewards of the earth's resources for future generations because *responsibility* and *respect* for others and of nature make our lives better. If we are *honest* and truthful with ourselves, we will admit that our happiness depends as much or even more on the quality of our relationships and our sense of purpose in life as on our income or wealth. We're not just material beings; we are social and spiritual beings as well. We need to lead lives of harmony and balance, lives of integrity.

Many people today are longing for a sense of *rightness* in their relationships with each other and with the other living and nonliving things of their natural environment. An agriculture that has both ecological and social integrity can satisfy this longing, and an agriculture lacking in integrity cannot, no matter how economically efficient it may seem. By working and living sustainably, we will find opportunities to sustain healthy levels of profits and income without relying on extractive and exploitative business practices or lifestyles. By working and living sustainably, we will find opportunities to benefit from the resources and energy of the earth, while leaving equal or better opportunities for those of the future. In my snapshot of sustainable agriculture in North America, the brightest star I can see on the horizon is the one guiding us toward long run economic viability through ecological and social integrity.

## End Notes

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- <sup>1</sup> The World Commission on Environment and Development, *Our Common Future*, ed. Gro Bruntland, (Oxford, England: Oxford University Press, 1987).
- <sup>2</sup> See *Bruntland Report*, 1987, Seafeld Research & Development Services, Seafeld Terr, United Kingdom, <<http://www.srds.ndirect.co.uk/sustaina.htm#What%20is%20meant%20by%20'Sustainability'>>
- <sup>3</sup> Sir Albert Howard. 1940. *An Agricultural Testament*. Oxford University Press: Oxford, England. also in Small Farms Library <[http://journeytoforever.org/farm\\_library/howardAT/ATtoc.html](http://journeytoforever.org/farm_library/howardAT/ATtoc.html)>
- <sup>4</sup> J. I. Rodale. 1948. The Organicurist's Creed, Chapter 8. *The Organic Front*. Rodale Press: Emmaus, PA, USA. <<http://www.soilandhealth.org/copyform.asp?bookcode=010133>>
- <sup>5</sup> *The Hartman Report*, a nationally respected source of market information for natural food products, estimates that two groups of consumers, the New Green Mainstream and True Naturals, represent prime markets for natural foods and make up approximately 28 percent of all American consumers. See Hartman Report: *Food and the Environment – A Consumer's Perspective*, 1999. <<http://www.hartman-group.com/products/reportnatsens.html>>
- <sup>6</sup> Fred Kirschenmann, Steve Stevenson, Fred Buttel, Tom Lyson and Mike Duffy. 2003. "A White Paper for Agriculture of the Middle Project," <[www.agofthemiddle.org](http://www.agofthemiddle.org) >
- <sup>7</sup> See *The Association of Family Farms*, <<http://www.associationoffamilyfarms.org/overview.asp>>
- <sup>8</sup> See *New Seasons Market*, <<http://www.newseasonsmarket.com/>>
- <sup>9</sup> See *Good Natured Family Farms*, <<http://goodnatured.net/>>
- <sup>10</sup> See *FoodTrust Prince Edward Island*, <<http://www.foodtrustpei.com/about/>>
- <sup>11</sup> For more information see, <<http://www.farmtoschool.org>> and <<http://farmtocollege.org>> and for case studies, see *Agriculture of the Middle*, <[http://www.agofthemiddle.org/archives/2004/09/case\\_studies.html](http://www.agofthemiddle.org/archives/2004/09/case_studies.html)>
- <sup>12</sup> For a good basic discussion of the issue of "peak oil," see, <<http://www.communitysolution.org/peakqanda.html>>
- <sup>13</sup> Alfred J. Cavallo, "Oil: Caveat empty," *Bulletin of the Atomic Scientists*, May/June 2005 (vol. 61, no. 3), 16-18.
- <sup>14</sup> John Ikerd, *Second U.S. Conference on "Peak Oil" and Community Solution*, Yellow Springs, Ohio, September 23-25, 2005, available in late 2005 at, <<http://www.ssu.missouri.edu/faculty/jikerd><
- <sup>15</sup> For a discussion of principles and values, see John Ikerd, *Sustainable Capitalism: A Matter of Common Sense*, Chapter 2, (Bloomfield, CT: Kumarian Press, Inc., 2005).
- <sup>16</sup> See *Institute for Global Ethics*, <<http://www.globalethics.org/>>.