

## Twenty Years of Sustainable Agriculture<sup>1</sup>

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The sustainable agriculture movement gained its first official recognition, at least in the United States, when Congress approved a provision of the 1985 Farm Bill, which was later dubbed Low Input Sustainable Agriculture, or LISA. Some may contend that the sustainable agriculture movement was just a continuation of the organic farming movement of the 50s and 60s. Others may argue that both the organic and sustainable farming movements are simply branches of a larger movement made up of all farmers who refused to embrace the chemical-farming technologies that have dominated agriculture since World War II.

Some sustainable agricultural advocates may be uncomfortable even referring to sustainable agriculture as a “movement.” However, a social movement may be defined as “any sustained organized effort by advocates of a common goal or purpose.” I believe the organized efforts to develop a more sustainable agriculture – an agriculture that can last – has been advocated by enough people for long enough to qualify as a legitimate social “movement.”

Sustainable agriculture first came to general public awareness with the merging of three different streams of agricultural concerns. Organic farmers and environmental groups were concerned with the impacts of agricultural chemicals on the natural environment and on human health. Some conventional farmers and agricultural groups were concerned about the impacts of rising costs and falling prices on the agricultural economy. Small farmers and rural advocacy groups were concerned about the impacts of agricultural industrialization on farm families, rural communities, and society as a whole.

These three groups came together in support of the initial LISA legislation and later in defending the LISA program against relentless attacks by agribusiness groups and their allies within the *agricultural establishment*.<sup>3</sup> Agribusiness was not about to support any government program that promoted the use of fewer purchased inputs. Most mainstream farm organizations and agricultural universities lacked the courage to oppose the agribusiness community. But, the coalition supporting sustainable agriculture held together well enough to save the political identity of the movement. They redefined and renamed LISA to create the Sustainable Agriculture Research and Education program, or SARE. Obviously, the SARE program is not synonymous with the “sustainable agriculture movement.” But, the persistence of the USDA SARE program, in the face of relentless efforts to disable or destroy it, bears testimony to the movement's continuing strength and durability.

The sustainable agriculture movement has had its “heroes” over the years. There are always risks in mentioning any, because some others, equally deserving, inevitably must be left

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<sup>3</sup> The *agricultural establishment* refers to USDA, the Land Grant Universities, Commodity Groups, major farm organizations, and other advocates of continuing agricultural industrialization.

unmentioned. The ideas of a few of these early pioneers, however, had particularly important and lasting impacts on the sustainable agriculture movement. The late Bob Rodale, of the Rodale Institute and Organic Farming Magazine, was perhaps the most important thinker during the early days of the movement. Rodale was an advocate of a “regenerative” agriculture. He understood that the sustainability of agriculture depends upon maintaining the natural renewal and regenerative capacities of living systems – thus, his advocacy of “organics.” He also initiated the “New Farm Magazine,” recognizing that sustainable agriculture was not just a refinement of conventional agriculture, but instead, was a completely new and different approach to farming.

The ideas of Wes Jackson, Director of the Land Institute in Salina, Kansas, also helped shape thinking in the early days of the sustainable agriculture movement. Wes's work centered, and still centers, on developing agricultural systems that mimic the native prairie ecosystem – primarily, perennial polycultures. Wes was fond of saying that the “problem was not *with* agriculture, but *was* agriculture.” He interpreted agriculture as a misguided attempt to reshape and dominate nature, and in essence, was suggesting that we must redefine agriculture and learn to work *with* nature.

Fred Kirschenmann, Director of the Leopold Center for Sustainable Agriculture at Iowa State University, has been an influential thinker since the early days of the sustainable agriculture movement. At the time, Fred was a farmer, managing a large, family-owned organic farming operation in North Dakota. However, he had been a professor of philosophy prior to returning to the farm and was well grounded in the principle of ecology. Fred's early contribution to sustainable agriculture included his perspective of the farm as an ecosystem. Natural ecosystems are the basic source of all productive resources and the ultimate sinks for all wastes. Natural ecosystems are capable of renewing resources and of assimilating wastes. However, the conventional, industrial approach to farming relies on resources that are not renewable, and it generates wastes that far exceed nature's ability to assimilate. Thus, it is not sustainable.

Wendell Berry, Kentucky farmer and writer, has probably had more influence at the grass roots of the sustainable agriculture movement than any other single person. Berry's book, “The Unsettling of America,” was a clear and concise indictment of conventional, industrial agriculture and of the agricultural establishment in general. Wendell's primary contribution to the movement, however, has been his articulation of the importance of a “sense of place” in sustainable agriculture. His writing conveys a clear sense of the necessity of having people on the land who are committed to the land and having people in rural communities who are committed to each other if our agriculture and our society are to be sustainable. The sustainability of agriculture depends upon farmers' love of the land and love of people.

Allan Savory, Center for Holistic Management in New Mexico, has had more influence on the sustainable agriculture movement than he probably would care to admit. Savory has never been an open advocate of sustainable agriculture – as he narrowly defines it as simply agriculture without commercial chemicals. However, the thousands of farmers who have been trained or self-taught in the principles of Holistic Resource Management are among the most ardent advocates of sustainable agriculture. Savory's primary contributions to the movement are his emphasis on holism – wholes as more than simple collections of components – and his emphasis

on the necessity of a three-part, holistic goal, which includes ecological, economic, and social dimensions.

Joel Salatin, of Polyface Farm in Virginia, has served as the “poster boy” for sustainable farming. He has been on the cover of Smithsonian Magazine, has been Person of the Week on the ABC Nightly News, and has traveled the Continent of America from one end to the other extolling the virtues of farming by the principles of sustainability – taking care of the land, caring about people, and making a good living from the land.

Dick Thompson, a founding member of Practical Farmers of Iowa, is another pioneer sustainable farmer. Dick and his wife Sharon have traveled the country, laying out the records for production and profits for his farm and spreading the gospel of a better way to farm. The Salatins, Thompsons, and host of others “new American farmers,” scattered all across the country, provide living proof that sustainable farming is not just a good idea, but also, is a good way of life.

I could name many others who made important contributions to the movement in many different ways. Dixon Hubbard and Patrick Madden guided the LISA program through the bureaucracy of USDA. Fred Magdoff, University of Vermont, Clive Edwards, Ohio State University, Chuck Francis, University of Nebraska, Jim Horne, Kerr Center in Oklahoma, Jim Lukens, ATTRA in Arkansas, Jerry DeWitt, Iowa State University, and Marty Strange, Center for Rural Affairs in Nebraska, are just a few, among the many, who were instrumental in keeping the SARE program going in the early years.

A lot of time and effort was spent in the early days of the movement trying to define sustainable agriculture. Some of the earlier questions concerning definition were genuine; sustainability was not a concept that easily fit accepted classification schemes for science-based definitions. Sustainability had undeniable social and ethical dimensions, which made many physical scientists both uncomfortable and skeptical. It was not a bottom-line, economic issue, which alienated the economic and business community. Many different definitions were suggested and many advocates proposed abandoning the word “sustainable” altogether – it was just too difficult to define, and it seemed to alienate too many people. But, the sustainable agriculture movement has persisted and its name has persisted with it.

Today, there is no longer any real lack of understanding concerning what sustainable agriculture means or what it requires, at least not among those who are willing to take the issue seriously. Almost invariably, when someone today challenges an advocate to define what they mean by sustainable agriculture, the challenger is simply trying to create confusion in the minds of others, to avoid being forced to address the real questions of sustainability. They know intuitively that the answers to those questions will reveal the reality that conventional industrial farming systems quite simply are not sustainable.

Sustainability still doesn't have a "simple little definition" because it is not a "simple little concept." But, being difficult to define doesn't make the concept of sustainability any less important. Who is wise enough to provide "simple little definitions" of love, hope, faith, or even profit? Yet, few would argue that we can't deal with such things, because we can't define

them, or that they aren't important. People generally have a good understanding of the "really big" issues, such as love, hope, faith... and sustainability, even if they can't easily define them.

Nevertheless, it is certainly worth our continuing time and effort to try to find ways to communicate the concept of sustainability more effectively to those who, for the first time, are linking the concept of sustainability to agriculture. The most basic definition of sustainable agriculture is "an agriculture that will last" – an agriculture that can maintain its productivity and value to society, indefinitely. A sustainable agriculture must meet the needs of people of the present, while leaving equal or better opportunities for those of the future.

In order to last, a sustainable agriculture must be ecologically sound, economically viable, and socially responsible. If a system of agriculture destroys the productivity of its natural resource base – water, air, or soil – it eventually will lose its ability to produce, and thus, is not sustainable. If a system of agriculture doesn't meet the needs of society, as consumers, producers, and citizens, it will not be supported by society, and thus, is not sustainable. And, if a system of agriculture fails financially, it is not sustainable, no matter how ecologically sound or socially responsible it might otherwise have been. All three dimensions of sustainability are necessary – like the three dimensions of a box. A box without height, width, and length is not a box, and a farm that is not ecologically sound, economically viable, and socially responsible is not sustainable.

In somewhat different terms, the concept of sustainability applies the Golden Rule both within and across generations. We should do unto others, as we would have them do unto us. We should take care of ourselves, if we are able to do so, but we should also care for others, as we would have them care for us, if we were not able to care for ourselves. Sustainability simply extends the Golden Rule across generations. We should care for those of future generations, as we would have them care for us, if we were of their generation and they were of ours. Why should we care about the Golden Rule? As Ben Franklin once said, such philosophical and religious commandments, "are not good for us because they have been commanded of us, but are commanded of us because they are good for us."

Sustainability ultimately is a matter of ethics and morality. For people who feel no ethical or moral responsibility to take care of the earth for the benefit of those of future generations, ecological sustainability seems foolish. To those who feel no ethical or moral responsibility to consciously and purposefully consider the needs of others, societal sustainability seems naive. To those who choose to pursue only their individual economic self-interests, sustainability seems irrational. The ethical and moral foundation for sustainability reflects a more enlightened concept of self-interest.

Society will not fully embrace the concept of sustainability until they realize that to do so is not a sacrifice, but instead is a privilege. Caring for others is not a sacrifice, because the positive relationships that result from our mutual concerns for each other are valuable, even essential, to our own quality of life. Stewardship of nature, for the benefit of future generations, is not a sacrifice, because stewardship of the earth adds purpose, meaning, and thus, quality to our lives. When we live sustainably, we pursue a more enlightened self-interest, which recognizes and values the individual, interpersonal, and spiritual dimensions of our lives. Sustainability

ultimately is about sustaining a desirable quality of life. The sustainable agriculture movement will continue to grow as more and more people come to understand that sustainability ultimately is about a more desirable quality of life.

Over the years, the dominant themes addressed by the sustainable agriculture movement have evolved to accommodate the changing knowledge base and changing interests of its advocates. In the early days, much of the emphasis in sustainable agriculture research and education was on alternative farming practices, methods, and systems – soil conservation, nutrient management, integrated pest management, reduced energy use, organic farming, low-input farming systems, integrated farming systems, etc. Later, the emphasis shifted to economics, with questionable attempts to compare conventional and sustainable farming systems but more promising attempts to identify new methods of marketing sustainably produced products. Direct marketing and value-added processing continue to be prominent themes in sustainable agriculture research and education programs today. The social dimension of sustainability has been supported primarily by work relating the sustainability of farming to the sustainability of rural communities, and more recently, work related to community food systems.

Public policy has always been important to the sustainable agriculture movement, with the federally funded SARE and ATTRA programs serving as focal points during each new budget cycle. Sustainable agriculture policy advocates have been strong supporters of resource conservation and protection programs, such as the Conservation Reserve Program, Environmental Quality Incentive Program, and the new Conservation Security Program. The sustainability policy front has been increasingly difficult in recent years, as witnessed by difficulties in passing effective payment limitations and difficulties in funding of the Value Added Grants, Country of Origin Labeling, and other programs that would have targeted benefits to smaller, family farms. At least, funding for SARE and ATTRA programs have not yet been cut.

Since the mid 90s, the sustainable agriculture movement has continued to show impressive growth at the grass roots level. At least five annual “sustainable agriculture” conferences in the U.S. consistently draw more than 1,000 participants a years – with a couple drawing 2,500 or more.<sup>4</sup> Equally important, the larger conferences are mostly organized by grass-roots organizations and the vast majority of attendees are farmers. Sustainable agriculture conferences drawing 400-500 are far from rare and conferences drawing 100-250 people per year are too numerous to attempt to count. Increasingly, farming conferences are planned in collaboration with citizen and consumer groups, or farmers are included in conferences sponsored by such groups. The biggest challenge in sustainable farming today may well be finding ways to encourage and nurture a new generation of farmers to replace the aging pioneers. However, the sustainable agriculture movement today is alive and well at the grass roots.

Perhaps even more important, the sustainable agriculture movement today is picking up new allies among other likeminded farm and non-farm groups. The issues of economic globalization, corporate consolidation of the food system, confinement animal feeding operations, biotechnology, and other more general food safety, health, and nutrition issues have all helped to

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<sup>4</sup> Ecofarming and Bioneers in California, Pennsylvania Association for Sustainable Agriculture, Upper Midwest Organic Farming Association, and Northeast Organic Farming Association of New York.

strengthen the sustainable agriculture movement. With these new allies, the movement now embraces its thousands, if not hundreds of thousands, of likeminded advocates and active proponents scattered across the continent and around the globe.

Perhaps the most recent important development, sustainability is now moving beyond the farm gate and is making conceptual inroads into other segments of the food system. Independent food processors, distributors, and marketers are beginning to realize they face the same kinds of challenges from a corporately controlled, global food system as do independent family farmers. They are also beginning to understand that they have the same kinds of opportunities as farmers in helping to create and benefit from a new and different sustainable food system.

Independent retailers and restaurateurs are beginning to understand they must find their unique market niches – meeting the needs of consumers that are not being met by the industrial, mass production, mass distribution food system of today. Many consumers today don't trust the current food system. They are concerned about food safety and nutrition and are dissatisfied with the taste and flavor of many industrial food products. They will pay premium prices for wholesome, nutritious food that really tastes good. Many consumers are concerned about where their food comes from and how it is produced. They will pay premium prices for crops that are grown organically or for meat from animals raised under humane conditions, without chemicals, without hormones or antibiotics.

The mass production, mass distribution food system cannot meet the unique needs of unique consumers – at least not as efficiently as the smaller, individually owned, family operated food businesses. The numbers of potential customers for sustainably produced foods are large and growing. This continued growth in customers for sustainably produced foods represents the best hope for continued growth and eventual success for the sustainable agriculture movement.

The potential for growth of the movement in America is supported by a host of statistics in an important new book, The Cultural Creatives. Paul Ray and Sherry Anderson, the authors, identify three distinct groups within American society, based on some 100,000 responses to surveys concerning basic values and lifestyles and numerous focus groups and personal interviews. The dominant group, the “moderns,” makes up about half of American society. However, only about half of this group is firmly committed to the materialistic principles of individual economic self-interest, which dominates American society today. About a quarter of those in the “moderns” group are too busy trying to get ahead or to make ends meet to think about what they believe. Those in the remaining quarter actually feel alienated by modern society, it isn't working for them, but they go along because they don't see a viable alternative. Another group, the “traditionalists,” makes up about a quarter of the adult population. The authors describe the traditionalists as wanting the world to be “like it used to be but never was.” Their focus is on restoring culture to some idealized vision of earlier times.

The final group, the “cultural creatives,” makes up between one-quarter and one-third of the American adult population. The “cultural creatives” group is distinguished from the other two by their strong belief in the value of personal relationships, within families, communities, and society as a whole, and by their concern for the integrity and sustainability of the natural environment. They are found in association with various social movements, including social

justice, environmental protection, civil rights, gender rights, and sustainable development. They are less materialistic than are either of the other groups and they tend to be more spiritual – in the sense of a personal connectedness with something beyond self. The values and lifestyles of the “cultural creatives” are completely consistent with the principles of sustainability.

The Hartman Report – a very well done survey of representative United States households – adds credibility to the “cultural creatives” hypothesis. The Hartman Report identified two groups, the “true naturals” and “new green mainstream,” which make up about 28 percent of the population, as prime markets for sustainably produced foods.<sup>5</sup> These groups are very similar in attitudes and in magnitude to Ray and Anderson's cultural creatives. Armed with the ecological, social, and economic facts of today's food system, and an opportunity to choose a sustainable alternative, an even larger group of consumers may well be willing to pay the economic costs of a truly sustainable food system.

The Chefs Collaborative is one prominent organization that is attempting to respond to the emergence of this new food culture. The Collaborative includes chefs from up-scale restaurants throughout the country. Their fundamental organizational principles include, “Sound food choices emphasizing locally grown, seasonally fresh, and whole or minimally processed ingredients.” Other principles are very much in harmony with the development and support of an ecologically sound and socially responsible food system. In addition, independent restaurants everywhere, across all price ranges, seem to understand that their best defense against the national franchises is to advertise their reliance on local farmers who provide them with really fresh, high quality foods.

Another organization giving voice to the new food culture is the Slow Food Movement. Slow Food is a worldwide movement committed to promoting the diversity of local and regional quality food produced and marketed in a way that guarantees farmers a fair price and protects the environment and the natural landscape. Those in the movement seem to have a clear understanding of the industrial food system and realize that a return to locally and regionally based food systems will be necessary for ecological and social sustainability. In his book, The Pleasures of Slow Food, Corbey Kummer points out that Slow Food is not an elitist gourmet movement, but instead, encourages “good, honest food at reasonable prices” and its appreciation and enjoyment to the fullest by all.

While these movements still may be small, they are helping to create a new food culture for the future. The “cultural creatives” within society are just beginning to realize that they can reflect their values and pursue their preferred lifestyles through their food choices. As the availability of alternatives to industrial, mass-produced foods become more common, awareness and demand for something fundamentally different and better will continue to grow. The “cultural creatives” didn't exist forty years ago and perhaps accounted for five to ten percent of Americans a decade ago; today they may account for a third or more of the total adult population, and they are still growing. Current sales of organic, natural, socially responsible products represent but a small fraction, certainly no more than five percent, of the current potential market represented by this large and growing segment of American society.

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<sup>5</sup> *The Hartman Report: Food and the Environment – A Consumer's Perspective*, 1999.

In summary, the sustainable agriculture movement has come a long way in the past twenty years. The banner of sustainable agriculture was once carried by a small band of activists who were concerned about the growing negative consequences of conventional farming for the land, for rural communities, and for the future of family farms. They had a different vision for the better future for American agriculture. Those early advocates of sustainable agriculture were joined by groups of thoughtful farmers, a few government bureaucrats, a handful of university professors, and a dozen or so nonprofit organizations to give birth to a new social movement.

Only time will tell what future path the sustainable agriculture movement will follow and where it ultimately will end. But wherever it goes and whether or not it ultimately succeeds, the sustainability movement represents America's best hope for a better future.

I wish I could tell you I am sure of our ultimate success, but I can't. Sustainable agriculture represents a challenge to the politically and economically powerful who dominate American society today. Admittedly, the odds are against us and there is no certainty of success, but there most certainly is hope. To quote Vaclav Havel, writer, reformer, and former President of the Czech Republic:

*“Hope is not the same as joy when things are going well, or willingness to invest in enterprises that are obviously headed for early success, but rather, an ability to work for something to succeed. Hope is definitely not the same thing as optimism. It's not the conviction that something will turn out well, but the certainty that something makes sense, regardless of how it turns out.*

*It is this hope, above all, that gives us strength to live and to continually try new things, even in conditions that seem hopeless. Life is too precious to permit its devaluation by living pointlessly, emptily, without meaning, without love and, finally, without hope.”*

So, whenever it seems that movement is faltering, when it seems the odds are against us, and there is little chance for success, don't lose hope. As long as there is a possibility of finding a better way to farm and a better way to live, as long as sustainable agriculture makes sense, there is hope. In this hope, we will find the strength to keep the movement alive, even when conditions, to others, seem hopeless.

*Life is simply too precious to permit its devaluation by living pointlessly, emptily, without meaning, without love and, finally, without hope.*

In the sustainable agriculture movement, there is hope for a better future – for farmers, for rural people, for society in general, for all people of all times.

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Sustainable agriculture integrates three main goals ? environmental health, economic profitability, and social equity. It aims to achieve these goals by establishing systems with key characteristics, including resilience, adaptability, and diversity.Â By: Brodt Sonja (UC Sustainable Agriculture Research and Education Program and Agricultural Sustainability Institute), Six Johan (Department of Plant Sciences, UC), Feenstra Gail (UC Sustainable Agriculture Research and Education Program and Agricultural Sustainability Institute), Ingels Chuck (University of California Cooperative Extension, Sacramento County) & Campbell David (Department of Human and Community Development, UC) Â© 2011 Nature Education. National Research Council; Division on Earth and Life Studies; Board on Agriculture and Natural Resources; Committee on Twenty-First Century Systems Agriculture. In the last 20 years, there has been a remarkable emergence of innovations and technological advances that are generating promising changes and opportunities for sustainable agriculture, yet at the same time the agricultural sector worldwide faces numerous daunting challenges. Not only is the agricultural sector expected to produce adequate food, fiber, and feed, and contribute to biofuels to meet the needs of a rising global populati