I Believe in the Future of Farming¹

John Ikerd²

I believe that to live and work on a good farm is pleasant as well as challenging; for I know the joys and discomforts of farm life and hold an inborn fondness for those associations, which even in the hours of discouragement, I cannot deny. (An excerpt from the creed of the Future Farmers of America)

During my high school years, I was a member of the Future Farmers of America or FFA. Since then name has been changed to simply FFA – agribusiness has replaced farming as the focus of the once-popular organization. During my times, the FFA Creed began with the words: *I believe in the future of farming with a faith born not of words but of deeds*. I believed those words then, and I believe them even more today. However, I do not believe there is any future in the kind of farming or agribusiness the FFA is promoting today. I believe we are living through the end of an era in America and the rest of the so-called developed world, including the end of agribusiness and the rebirth of real farming in America.

When I finished high school, there was only room for one family on our farm, and my younger brother never wanted to do anything other than farm. So I left the farming to him and choose a career where I could at least work with farmers if not be a farmer. However, if I were a young man today, I would find some way to become a farmer. The opportunities are far greater now than when I was young. For example, it doesn't take as much land or money today to start a successful small farm. More important, we are in the midst of a great transition that eventually will transform virtually every aspect of American life. This great transition is creating virtually unlimited opportunities for those who have the aptitude, ability, and passion to become a farmer.

Too often, people simply look at trends of the past and assume the same trends will continue indefinitely in the future. However, trends never continue indefinitely; at some point, they inevitably reverse and move in a new direction. A few years back, a couple of scientists proposed a list of the top twenty "great ideas in science" in *Science* magazine, one of the two most respected scientific journals in the world.ⁱ They invited scientists from around the world to comment on their proposed list. Among the top twenty were such ideas as the relationship between electricity and magnetism, the laws of gravity and motion, and the first and second laws of thermodynamics. The top twenty also included the proposition that "everything on the earth operates in cycles" – everything physical, biological, social, economic – everything. Some scientists responding to the *Science* survey wanted to tweak the proposed theory of universal cycles a bit, but most left it on their list of the top twenty great ideas in science.ⁱⁱ

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In fact, every couple of hundred years throughout human history society has gone through great transformations. Such transitions result from changes in our understanding of how the world works and our place within it. I believe we are currently living such a time of change. I believe the changes we are experiencing now are at least as important as those of the Industrial Revolution of the late 1700s and perhaps as important as the beginning of science in the early 1600s. I'm an old man and I have seen many changes during my 70-plus years. But, the changes I've experienced are not even remotely comparable to the changes I believe today's young people will see during their lives. People who are born in the mid-21st century won't even be able to imagine the world of today.

Over the years, I have come to the conclusion that we don't make "really big" changes unless three conditions exist. First, we have to become convinced that what we are doing now isn't working and isn't going to work in the future. We have to have a good reason to change. But, that's not enough. We also must have a clear concept or vision of what we could do instead that would be fundamentally better than what we are doing now. Without a clear vision of something better to change to, most people just keep on doing what they have been doing. Finally, we must believe that the something better is possible, even if not quick and easy. Most people do not pursue impossible dreams. They must have hope. For the vast majority, change is viewed as being uncomfortable, difficult, and often risky. Lacking any one of the three pre-conditions for change, most people just keep on doing what they are doing.

Today's great transformation is being driven by questions of sustainability. I believe sustainability will be the defining question of the 21st century. Sustainability asks: how can we meet the needs of the present without diminishing opportunities for the future? It asks whether we can keep doing what we are doing: the essential question that precedes change. When we ask this question earnestly and honestly, we come to the inevitable conclusion: What we are doing today isn't even meeting the needs of most people today, and most certainly isn't leaving equal or better opportunities for those of the future. We can't keep doing what we have been doing. Our current way of life is not sustainable.

This is not just a personal opinion. Ultimately sustainability is a matter of energy. Our houses, clothes, cars, our food, require energy to make and energy to use. In fact, all material things are simply concentrated forms of energy. Human imagination, creativity, and labor also require energy – the brain uses something like 20% of the energy used by the human body. In addition, we are not born as productive individuals; we are born as helpless babies. We must be nurtured, cared for, socialized, civilized, and educated before we become useful to society. All of this requires human energy, which comes from biological energy.

The economic growth of the past 200-years, which defines the industrial era, was made possible by an abundance of cheap energy – first the old growth forests, then surface mining of coal, and for the past 100-years, by shallow reservoirs of oil and natural gas. But the old growth forests are gone, we are blowing the tops off mountains to get the remaining coal, the remaining oil is deep beneath the ocean floors, and we are fracturing and crushing the crust of the earth to squeeze out the last natural gas. We are not out of fossil energy, at least not yet, but we are quickly running out of abundant and cheap energy. The remaining sources of affordable fossil

energy, mostly coal, are major contributors to greenhouse gasses and other pollutants which are threatening the ability of the earth's natural ecosystems to support human life.

The only sustainable source of energy is solar energy. However, energy from all the sustainable sources combined – wind, water, solar panels, biofuels – will the less plentiful and far more costly than fossil energy. The days of cheap, abundant energy are over – period. Certainly, we can use energy more efficiently, but we simply cannot sustain the economic growth rates of the industrial era. The industrial era was an aberration in human history that is not likely to be repeated. We can't continue doing what we are doing. It is not sustainable. Change is no longer an option; it is an absolute necessity.

That said, we will not make the changes we need until we have a clear idea of something better that we can change to. We need to create a new vision of a better future – a future beyond sustainability. That new vision must begin with the realization that we really don't need more economic growth; we already have enough "stuff." Ironically, the most prominent economist of the 20th century, John Maynard Keynes, anticipated the current time of change back in the 1920s. He thought the *economic problem* would be solved within a hundred years, which would be about now. He understood the economy as just a means of meeting our basic material or tangible needs. He didn't consider the economic problem to be *the permanent problem of humanity*, but only a temporary problem that eventually would be solved." To him, the permanent problem was to learn the "true art of living," to use our freedom from pressing economic concerns to learn to "live wisely and agreeably and well."

As it turned out, Keynes was actually too conservative. The "economic problem" in America was solved as early as the 1960s. Various surveys and studies indicate there is been no increase in overall well-being or happiness in the U.S. or the rest of the so called developed world since the 1950s, in spite of continued growth in wealth and the consumption of "stuff." iv Admittedly, many so-called "lesser-developed" countries of the world still need to work on the temporary problem of economic growth. However, they need not consume all of the earth's remaining natural resources in the process. First, the developing nations don't need to expand their economies to match the American lifestyle. The research indicates that beyond about \$10,000-\$15,000 GDP or income per person – there has been no relationship between further economic growth and happiness or overall quality of life.

People tend to be happier, regardless of their absolute level of income, in nations that are more equitable, where there is less disparity between the rich and poor,. Developing countries can balance their modest needs for economic growth with the need to build more equitable and just societies, without compromising their future. Even unsustainable population growth is much more a consequence of insecurity and inequity than of poverty or economic deprivation. Sustainable development may be slower and more difficult than industrial development, but in a world running out of fossil energy, sustainable development is the only logical alternative for the future. There are more than enough resources on earth to meet the basic needs of people of both current and future generations in developed and developing countries, just not enough to sustain the levels of economic growth we Americans have come to expect. It's time for people in developed and developing nations alike to turn our attention to the true art of living – to live wisely, agreeably, and well.

It's time to return to the historic purpose of human life; to the pursuit of happiness. People throughout human history have known that beyond some fairly modest level of material well-being there is no relationship between further increases in income or wealth and increases in happiness or overall quality of life. Once our basic material needs are met – food, clothing, shelter, health care, – the quality of our life depends far more on the quality of our relationships – friends, family, community, society – than on the quantity of income or wealth. We are social beings; we need to love and be loved. We are also ethical or moral beings. Our happiness depends on our having a sense of purpose and meaning in life. We need to feel in our heart that what we are doing is significant; that it's right and good. A multitude of social science studies related to wealth and happiness confirm our common sense. Once our individual, tangible needs are met, the pursuit of happiness is about developing the social and spiritual dimensions of our lives, rather than striving to acquire more income or wealth.

This is a vision of a new and better world that is worth taking the risks of revolutionary change. This is not some New Age utopian vision that is unattainable. The ancient Greek philosopher Aristotle believed that happiness was a natural consequence of "right relationships" among friends and within families and communities. Alex Des Tocqueville, in writing about democracy in America in the early 1800s, termed concern for the well-being of others as "self-interest rightly understood." The Dali Lama calls it being "wisely selfish" – understanding that our well-being is dependent on the well-being of the other living and nonliving things of the earth. All we need to do is return to those things people have always known to be right and true. We need only return to the pursuit of happiness. In this there is hope: The last requisite for change.

The change we need may not be quick or easy but it most certainly is possible; in possibility there is hope. In fact, fifty years ago, American had begun to confront the ecological and social challenges to sustainability. The environmental, civil rights and peace movements of the 1960s represented an awakening of America to the necessity for fundamental change. In response, Americans set an aggressive public policy agenda for the 1970s to confront these challenges. But such changes are never easy. Unfortunately, during the 1980s, many Americans retreated from their commitment to ecological and social change and returned to striving for greater income and wealth. The world we see today is largely a consequence of the past 30-years of denial and retreat. For young people, thirty years seems a lifetime. But, thirty years is not long in American history and certainly not in human history. We need not allow this 30-year aberration in history define the future of humanity. We were once a better people so we know it is possible to be a better people again. In this possibility, there is hope.

So what does this mean for the future of farming? We can see the negative consequences of the industrial era in American agriculture in the demise of the mid-sized, full-time family farms. Industrialization inevitably replaces people (labor and management) with mechanization and chemistry (capital and technology). In addition, many displaced farmers are no longer able to find off-farm employment adequate to support their families in the faltering non-farm economy. We also see a growing social and economic inequity with the concentration of wealth in agriculture among the largest farm operators, non-residential landlords, and corporate agribusiness investors. We see degradation of the soil though cultivation, depletion of water

through irrigation, and pollution of water with agricultural chemicals. Large-scale confinement animal feeding operations or CAFOs are the epitome of everything wrong with industrial agriculture. They pollute the soil, air, and water with biological and chemical wastes, destroy economic opportunities for farm families, and rip as under the social fabric of rural communities.

Many farmers are also caught up in the perils of rising energy costs with an agriculture that is hopelessly dependent of fossil energy. The impressive productivity of American agriculture is a direct consequence of cheap fossil energy – for fuels, fertilizers, and transportation. The American food system claims about 20% of all fossil energy used and requires about 10 calories of fossil energy for each calorie of food energy produced. About one-third of this total is accounted for at the farm level. The food system contributes a similar share of environmental problems, as greenhouse gasses are inevitably released through the use of fossil energy. Farming poses an added threat to global climate change through the release of methane, a powerful greenhouse gas, from livestock operations and carbon dioxide from tillage of the soil.

A new challenge looming on the horizon is the growing public awareness of the rising costs of health care, which have paralleled the industrialization of agriculture. Diet related illnesses are rampant in America, including obesity, diabetes, hypertension, heart failure, and various types of cancers. Obesity related illnesses alone are projected to claim about one-in-five dollars spent for health care in America by 2020 – erasing virtually all of the gains made in improving public health over the past several decades. VIII A growing body of scientific evidence links industrial agriculture to foods that are rich in calories and poor in nutrients, thus helping to fuel the epidemic of obesity and other diet-related illnesses. VIII

The industrialization of agriculture has been an absolute failure. A larger percentage of Americans are "food insecure" today than during the 1960s. Those who can afford to buy enough food are far less healthy. We are not meeting the needs of the present and certainly not leaving equal or better opportunities for the future. An industrial agriculture is not sustainable. Our current systems of farming and food production are not sustainable. Fundamental change in our systems of farming and food production is not an option; it is a necessity.

Fortunately, the alternative vision for a positive future in farming can be found in a return to real farming — to what farming was before the industrialization of agriculture. The word farm comes from Middle English word, ferme ("variously meaning: tenant, rent, revenue, stewardship, meal, feast"), from Old English feorm, farm ("meaning provision, food, supplies, possessions, rent, feast"), from Proto-Germanic firmō, firxumō ("means of living, subsistence"), and from Proto-Indo-European perkwu- ("life, strength, force"). ix It is related to other Old English words such as feormehām, feormere ("purveyor, grocer"), feormian ("to provision, sustain"), and feorh ("life, spirit"). The Old English word was borrowed by Medieval Latin as firma, ferma ("source of revenue, feast"), and strengthened by the word's resemblance to the Latin words, firma, firmus ("firm, solid") and firmitas ("security, firmness"). The industrial era in farming was an unsustainable aberration in human history that has no future.

Farmers of the future need only reclaim the richness of the historic meaning of farming. Certainly, economic concepts such as "rent, revenue, tenant, and means of living" are historical aspects of farming. But, farming was also identified with provision of physical and mental

sustenance for society: "provision, grocer, subsistence, life, benefit, spirit, and feast." Equally important, farming has always included a moral or ethical commitment to long run food security or permanence: "stewardship, strength, firm, solid, security, and sustain." Real farming has always been an ethical, social, and economic way of life – a means to pursue happiness. Sustainable farming isn't really a new idea. A real farm has always meant an economically, socially, and ecologically sustainable farm.

Historically, farmers were held in high esteem in the United States and around the world because of their unique importance to human society. Thomas Jefferson believed strongly that the "yeoman farmer" best exemplified the kind of "independence and virtue" that should be supported by the new democratic republic of the United States. He believed financiers, bankers, and industrialists could not be trusted and should not be encouraged by government. In light of our current financial situation in the U.S., "Jeffersonian Democracy" still makes a lot of sense.

Adam Smith, in writing the *Wealth of Nations*, noted that no endeavor requires a greater variety of "knowledge and experience" than does farming, other than possibly the fine arts or liberal professions. He observed that farmers ranked among the highest social classes in China and India, and suggested it would be the same everywhere if the "corporate spirit" did not prevent it. Smith also suggested that "they who feed, clothe, and lodge the whole body of people, should have a share of the produce of their own labor as to themselves be tolerably well fed, clothed, and lodged." Smith's reference to China was to the ancient philosophy of Confucius which ranks farmers second only to the academics or scholars in the Chinese social order. Following the farmer is the worker, and lastly, the businessman. Note that all of these respected historical figures placed those concerned primarily with economic matters at the lowest levels of society and those engaged in agriculture at or near the top.

There will be opportunities for more farmers because farms, by necessity, will be smaller than most of today's commercial farms today. Sustainable farms must rely less on fossil energy and agricultural chemicals and more on management and labor, meaning more farms and farmers per acre farmed and per dollar invested in farming. It will take knowledge, creativity, innovation, and entrepreneurship to produce enough food to meet the needs of all sustainably. Human scale technologies, such as the microcomputer, will make knowledge more easily acquired and creativity and entrepreneurship more effectively used. Sustainable farming does not mean going back to "40 acres and a mule;" it means going forward to farming that relies more uniquely human productive capacities.

Communities of the future will be those that have preserved and restored the fertile farmlands that remained in the areas where most of the cities and towns in America were initially settled. They will be communities that understand today's local food movement is not just about restoring healthy diets and healthy bodies, although health is obviously essential to physical well-being. Local foods will provide both the motivation and means of reconnecting people in meaningful personal and social relationships. Local food systems also will allow people to support their local farmers economically and thus support their local economies. Through local farmers, people will reconnect spiritually with the land and regain a sense of purpose and meaning in life through a commitment to the stewardship of nature. Farmers will again be held in high esteem as the icons of democracy and the caretakers of the future of humanity.

The hope for a brighter future in farming is seen most clearly in sustainable agriculture. The movement includes farmers who call themselves organic, ecological, biodynamic, holistic, practical, innovative, or just plain family farmers. What they have in common is their commitment to creating a *permanent* agriculture that can meet the needs of the present without diminishing opportunities for the future. They know they must balance the need for economic viability with ecological and social integrity to achieve sustainability. The numbers of such farmers is growing each year, as is evident at the dozens of sustainable agriculture conferences held annually all across the continent. At least eight "sustainable agriculture" conferences in the U.S. and Canada each draw more than 1,200 participants each year, with a couple reaching 2,500 to 3,000. The larger conferences typically are organized by grass-roots organizations and the vast majority of those attending are farmers and their customers. Sustainable agriculture conferences drawing 500-700 per year are common and conferences drawing 100-250 are too numerous to attempt to count, including conferences in virtually every state in the U.S. The size and numbers of such conferences is growing each year as is the number of young people attending.

Perhaps even more important, these new farmers are being supported by growing numbers of allies among other like-minded farm and non-farm groups. The Slow Food movement, for example, is a worldwide organization with about 100,000 members in over 150 countries. Slow Food's approach to agriculture, food production and gastronomy is... defined by three interconnected principles:, "Good: a fresh and flavorsome seasonal diet that satisfies the senses and is part of our local culture; Clean: food production and consumption that does not harm the environment, animal welfare or our health; Fair: accessible prices for consumers and fair conditions and pay for small-scale producers. *i Good, clean*, and fair are becoming the watchwords of the sustainable foods movement.

With wider recognition and growing consumer support, the sustainable agriculture movement is reaching beyond the farm gate, beyond farmers markets and CSAs, and into higher-volume food markets. 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. Major food industry studies indicate approximately one-third of American consumers are willing to pay premium prices for healthful and nutritious foods that have ecological, social, and economic integrity. With these new allies, the sustainable agriculture movement now embraces tens of thousands, if not hundreds of thousands, of likeminded advocates and active supporters scattered across the continent.

Our current well-being and the future of humanity are no less dependent on *real* farmers today than in the days of Jefferson, Smith, or even Confucius. We are just less aware of our dependencies on the land and the people who farm it. Most important, sustainable farmers, meaning real farmers, can demonstrate to the rest of American society that it is possible to meet the challenges of today and to create a new and better way of life for the future. The entire economy is just as dependent on the resources of the earth and the imagination, creativity, and caring of the people who bring forth other economic value from the earth as is agriculture. The connections are just easier to see in agriculture. Restoring quality of life to real farming and

sustainability to agriculture can serve as powerful examples of the possibilities for restoring happiness and quality to American life and sustainability to the American economy.

People often ask me if I think it's possible to feed a growing global population with organic or sustainable farming. My standard answer is: I don't know, at least not for sure, but I do know for sure we can't feed the world with agriculture that in inherently dependent on fossil energy in a world that is running out of fossil energy. I then go on to point out that I personally know several organic farmers with yields just as high and costs just as low as their conventional farming neighbors. Furthermore, some of the most credible global food studies indicate that sustainable farming practices are in fact the best hope for hungry people in the poorest and most densely populated areas of the world.xiii The primary difference is that sustainable farming is more "management intensive" than industrial farming, meaning that will take more thoughtful, caring farmers to feed the world sustainably – far more than we are preparing for farming today. This means society eventually will have to provide adequate incentives, economic and otherwise, to bring more thoughtful, caring young people into farming.

The defenders of the status quo will always find excuses to justify their continued exploitation of the earth and its people in their pursuit of greater wealth. Keynes also wrote, "There is no country and no people, I think, who can look forward to the age of leisure and abundance without dread. For we have been trained too long to strive and not enjoy... It will be those people, who can keep alive, and cultivate into fuller perfection, the art of life itself, and do not sell themselves for the means of life, who will be able to enjoy the abundance when it comes." The defenders of the status quo want people to keep striving because our striving creates opportunities for their continued accumulation of wealth. It will take courage for young people to reject selling themselves for the means of life in order to choose instead to live life to its fullest.

I tell young people they shouldn't even think about farming as an occupation unless they are convinced that farming is their "calling" – their mission or purpose in life. There are and will continue to be far easier means of make money than by farming. Farming in the future will not be a life of affluence or wealth but instead a life of ecological, social, and economic integrity – a life of purpose and meaning. It simply doesn't make sense that a person would not be able to find the economic means to pursue their purpose in life. The future of farming belongs to those farmers who feel a calling to return to *real* farming. A sustainable farm can be a great place to cultivate the art of life itself, to learn to live wisely, agreeably, and well. We know in our heart that when as we find happiness in relationships and stewardship we will also find ways to get enough "stuff." We don't have to wait for the rest of the world to change. We have the final prerequisite for the change we need to find happiness: we have reason for hope.

In the words of Vaclav Havel – philosopher 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 [to others] seem hopeless. Life is too precious to permit its devaluation by living pointlessly, emptily, without meaning, without love and, finally, without hope. xiv

I am an old man. I don't expect to see the great transformation completed in my lifetime. My hope today is in the millions of young people, all across this nation and around the world, like many of you here today. You know that what we are doing is not sustainable and you are helping to create a new vision of a better world –beyond sustainability. There is nothing more essential to the realization of this better world of the future than the sustainability of the food system, beginning with farming. So, I believe in the future of farming – of sustainable farming. We know that creating this new kind of farming will not be quick or easy, but we know it's the only thing that makes sense; in this there is hope. And even if in the end we fail, while daring greatly, always remember: life is simply too precious... to live without hope.

¹ Robert Pool. "Science Literacy: The Enemy is Us," *Science*, American Academy of Science, March 15, 251:4991, 1991, p. 267.

ii Elizabeth Culotta, "Science's 20 greatest hits take their lumps," *Science*, American Academy of Science, March 15, 251:4999, 1991, p. 1308.

iii John Maynard Keynes, Essays in Persuasion, (Miami, FL: BN Publishing – no copyright date) pp. 366-368.

^{iv} For a bibliography of happiness research, visit *the Positive Psychology Center*, University of Pennsylvania, http://www.ppc.sas.upenn.edu/positivepsychologyresearch.htm

^v Richard Wilkinson and Kate Pickett, *The Spirit Level; Why Greater Equality Makes Stronger Societies*, (New York: Bloomsbury Press), 2009.

vi Ed Diener and Martin EP. Seligman, "Beyond Money, Toward an Economy of Well-Being," *Psychological Science in the Public Interest*, 5 (1), 2004, 1–31.

vii Cost Of Treatment For Obesity-Related Medical Problems Growing Dramatically, *Rand Corporation*, http://Www.Rand.Org/News/Press.04/03.09.Html.

viii For Example: Donald Davis, Melvin Epp, and Hugh Riordan, 2004, "Changes in USDA Food Composition Data for 43 Garden Crops, 1950 to 1999" *Journal of American College of Nutrition*, 23:669-682. Bob Smith, 1993, Organic Foods vs Supermarket Foods: Element Levels, *Journal of Applied Nutrition*, 45:35-39. WM Jarrell and RB Beverly, 1981, "The Dilution Effect in Plant Nutrient Studies," *Advances in Agronomy*, 34:197–224.

ix Wikipedia; The On-line Dictionary, "farm."

^x Adam Smith, Wealth of Nations, (1776, New York: Prometheus Books, 1991) p. 83.

xi Slow Food International, http://www.slowfood.com/international/2/our-philosophy

xii Allison Wortington, Sustainability, the Rise of Consumer Responsibility, The Hartman Group, Bellevue, WA, Spring, 2009.

xiii International Assessment of Agricultural Knowledge, Science and Technology for Development, *Agriculture at a Crossroads*, Synthesis Report, 2009. Available at:

 $[\]frac{http://www.agassessment.org/reports/IAASTD/EN/Agriculture\%20at\%20a\%20Crossroads~Synthesis\%20Report\%2}{0(English).pdf.}$

xiv Vaclav Havel, *Disturbing the Peace* (New York: Random House inc.), 1990, Chapter 5.