

Small Farms are Real Farms: Revisitedⁱ

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Are small farms real farms? I have addressed this question on various occasions over the years, and of course, in my book, *Small Farms Are Real Farms*.¹ I keep returning to this theme because I am becoming more convinced over time that small farms are the *only* sustainable farms, meaning the only farms with a future, and in fact are the only *real* farms. Many people in the organic and sustainable agriculture movements feel that sustainability is not a matter of size; that any size farm can be managed either sustainably or unsustainably. I agree many small farms are not managed sustainably. However, I have come to the conclusion that many of today's large farms are too large to be farmed sustainably, no matter how well they are managed otherwise.

Questions of small farms and large farms invariably raise questions such as “how large is large and how small is small?” A *small* beef cattle ranch obviously requires more acres than a *large* poultry operation and a *large* vegetable farm needs fewer acres than a *small* wheat farm. The USDA calls any farm with less with than \$250,000 in annual sales a small farm; others draw the line at \$50,000 a year. I think large and small exists mainly in the mind of the farmer rather than in farm size or sales. The farmer who thinks he or she would be more successful if they just had more land and more capital is a large farmer at heart, no matter how small the farm. The farmer who is always trying to figure out how he or she might be able to make a better living on less land and less capital is a small farmer at heart, no matter how large the farm. However, I think there is some absolute size beyond which a cattle ranch, poultry operation, vegetable farm, or wheat farm simply becomes simply too large to be managed sustainably – although the critical size obviously will be different for different enterprises.

Many of the so-called farm experts think of small farms as farms of the past, not farms of the future. They tend to look at trends of the past and assume those same trends will continue on indefinitely in the future. If this were true, there would be little hope for a sustainable agriculture – or a sustainable society or humanity. Because as farms have grown larger, they have become less sustainable. Thankfully, trends never continue indefinitely. At some point, all trends reverse course and move in the opposite direction, in agriculture and elsewhere.

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 most respected scientific journals in the world.² They invited scientists from around the world to comment on their proposed list. Among the top twenty were such ideas as the laws of gravity, motion, and thermodynamics. The top twenty also included the idea: “Everything on the earth operates in cycles,” including everything physical,

ⁱ Prepared for Presentation at the 15th Annual Northern Michigan Small Farms Conference, Traverse City Resort, Acme, MI, February 1, 2014.

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biological, social, economic, – everything. Some scientists responding to the article suggested that things “tend” to cycle, but no one suggested removing “universal cycles” from the top-twenty list of ideas.³ Like the pendulum on a grandfather clock, when trends go so far in one direction the laws of nature, including human nature, inevitably slow their momentum and eventually pull them back the other way. The world of the future, including farms of the future, will not be a continuation of past trends. The tendency toward larger farms is a trend of the past, not a trend of the future. The hope for sustainable farming is in a return to small farms.

That said, the past never repeats itself, at least not exactly. No two days, seasons, political cycles, or business cycles are ever identical, but we can recognize each cycle as like something we have seen before. Small farms of the future will be different from those of the past. They will utilize new knowledge, technologies, and market opportunities to become even better farms than before. However, the unique characteristics that made small farms of the past “real farms” now make them the only farms consistent with the cyclical evolution of farming – the only sustainable farms with a future. Admittedly, not all small farms are real farms, but all real farms must be appropriately small.

The signs of a reversal of trends in agriculture are readily apparent – for those who are willing to think and to see. The signs of slowed momentum are apparent in growing public awareness that something is fundamentally wrong with the so-called modern food system. The signs of change are apparent in the sustainable agriculture movement: In the growing popularity of organic foods, and the emergence of local, community-based food systems. Many farmers are already taking farming in a different direction. The “experts” fail to appreciate the importance of these new trends because they see the food system as something separate from larger global economy and society, both of which are in the midst of transition – a change in direction.

Every couple of hundred years throughout human history, societies have gone through “great transformations”. Great transformations are a result of changes in societal understanding of how the world works and the place of humans within it – or in relation to it. Such changes in *worldview* change the ways people feel, think, and act and eventually change virtually every aspect of human life. I believe the changes we are experiencing now are at least as important as those of the Industrial Revolution of the late 1700s, perhaps as important as the beginning of science in the early 1600s, and maybe as great as the transition from hunting and gathering to farming. I have seen many changes during my 74 years, but the changes I've seen are not even remotely comparable to the changes today's young people will see. People born in the mid-21st century won't even be able to imagine the world of today – including the farms of today.

Today's great transformation is being driven by questions of sustainability. How can we meet the needs of the present without diminishing opportunities for the future? How much longer can the dominant trends of today continue into the future? I believe these will be the defining questions of the 21st century. When we ask these questions of sustainability earnestly and honestly, we must come to the inevitable conclusion: We are not even meeting the basic needs of many people today, and we most certainly aren't leaving equal or better opportunities for those of the future. Today's dominant trends can't continue much longer. Fundamental change is no longer just an option; it is an absolute necessity. Our current way of life is not sustainable.

Nowhere is the lack of sustainability clearer – yet less understood and appreciated – than in our systems of farming and food production in the United States. We are told by the agricultural establishmentⁱⁱⁱ that our food system is the envy of the world. U.S. consumers spend less than 10% of their disposable incomes on food, arguably less than in any other nation. U.S. supermarkets are filled year-round with an abundance and variety of fresh and processed food products from every corner of the earth. Our food is quick, convenient, and cheap. Why would we want to change the American food system?

First, the current abundance of food has been made possible by the industrialization of American agriculture. Many people equate industrialization to the migration of people from farms and rural communities to find manufacturing jobs in urban areas. However, the shift from agrarianism to urbanization is only a symptom of the industrial model or paradigm of economic development, which is characterized by specialization, standardization, and consolidation of control. Specialization increases economic efficiency: People who specialize in fewer things tend to do them faster and better. Standardization is then necessary to facilitate coordination, routinization, and mechanization of specialized production processes. Standardization simplifies production and management processes, allowing consolidation of control into large-scaled, eventually corporately-controlled, business enterprises. This is the basic industrial process by which industries realize “economies of scale”. Today's large farms are large because they are managed for the economic bottom-line, much as any other industrial organization.

Admittedly, agricultural industrialization has resulted in tremendous increases in economic efficiency and total agricultural production. The basic problem is industrialization has also brought many unintended ecological, social, and economic consequences. Industrial agriculture is inherently reliant on non-renewable fossil energy, chemically-dependent monoculture cropping systems, and large-scale confinement animal feeding operations. We see the ecological consequences of industrialization in eroded and degraded soils, polluted streams and groundwater, depleted streams and aquifers, and the growing threat of global climate change. In addition, the readily accessible sources of fossil energy have been depleted, and fossil energy will be less available and more costly in the future. The negative consequences of “fracking” for oil and natural gas is but the latest example of the growing ecological and social costs of our continuing dependence on fossil energy.

We see the social and economic consequences of industrial agriculture in the demise of independent family farms and the social and economic decay of rural communities, as the farms grow larger in size, fewer in numbers, and increasingly corporate-controlled. In addition, the most basic human rights of self-determination and self-defense are systematically denied to rural residents who are forced to live with clear and compelling threats to public health associated with large “factory farms”.⁴ “Right to farm” laws were never meant to ensure the right to operate “farm factories” that pollute the air and water with toxic chemical and biological wastes. Industrial agriculture is destroying the economic foundation of rural America. It is not ecologically, social, or economically sustainable.

ⁱⁱⁱ The “agricultural establishment” refers to the large agribusiness corporations, agricultural commodity organizations, the American Farm Bureau Federation, the U.S. Department of Agriculture, and state Departments of Agriculture.

Second, but less widely recognized, our industrial food system has been an absolute failure in its most fundamental purpose. It has failed to provide domestic “food security”: To ensure that all have access to an adequate quantity of safe, wholesome food to support healthy, active lifestyles. A larger percentage of people in the U.S. are “food insecure” today than during the 1960s, with more than 20% of U.S. children living on the verge of hunger in food insecure homes.⁵ The “Green Revolution,” which also relies on industrial farming methods, has similarly failed to bring food security to developing countries of the world. Millions of once self-sufficient, subsistence farmers remain unemployed in urban slums.

In addition, the only foods affordable to many lower-income families are high in calories and lacking in essential nutrients, leading to an epidemic of obesity and other diet-related health problems. Obesity-related illnesses, such as diabetes, heart disease, hypertension, and various forms of cancer, are projected to claim about one-in-five dollars spent for health care in the U.S. by 2020 – erasing virtually all of the gains made in improving public health over the past several decades.⁶ The irresponsible use of agricultural chemicals, growth hormones, antibiotics, and a multitude of additives in industrial foods add to a growing list of diet-related illnesses. Health care in America already consumes more than 17% of the total GDP or economic output, nearly twice as much as in 1980.⁷ We simply can't afford the high and rising costs of more cheap food. The industrial food system is not sustainable.

Admittedly, many people are still living in denial of the need for a fundamental change in the general economy or in agriculture. They hope for a new technological revolution that might somehow address the growing ecological and social problems without requiring changes in worldview or ways of thinking that would ultimately change their way of life. They cling to the false hope that human ingenuity will somehow be able to repeal the fundamental laws of nature which conflict with the core principles of industrial economic development.

However, the tide of public opinion is slowly turning toward a new and different worldview. An increasing number of people are beginning to view us human beings as part of the earth, not as beings apart from the earth. They are beginning to understand that our well-being is intrinsically interrelated with the well-being of the other living and non-living things of the earth. They see that we must learn to live in harmony with nature, rather than try to conquer nature. They are also beginning to realize that human happiness arises from balance and harmony among the ethical, social, and economic aspects of life, not ever-greater income or wealth.

We saw the beginning of great transformation with the environmental, civil rights, and peace movements of the 1960s and 1970s. Understandably, those in positions of economic and political power fought back in defense of the status quo. However, the recent financial collapse and continuing economic stagnation has once again flamed the fires of the inevitable revolution and eventual reversal of direction. In agriculture, we have seen the forces of change most clearly in the modern organic movement, which also began in the U.S. in the 1960s but didn't gain widespread support until the sustainable agriculture movement emerged in the 1980s. Organic food sales in the U.S. grew rapidly during the 1990s and early 2000s, averaging 20%-plus per year and doubling every three to four years before stabilizing at around 10% per year during the current period of economic stagnation.⁸ While organic sales still account for less than 5% of total U.S. food sales, organic fruits and vegetables claim over 12% of their markets.

The defenders of the agricultural status quo also have attempted to first stop and then co-opt the organic food movement. The modern organic food movement also began back in the 1960s when the “back to the earth” people rejected the industrial model of agriculture. They produced their own food, bought food from local farmers, and formed cooperative food buying clubs and natural food stores. They chose to grow foods organically because they were concerned about the health and environmental risks associated with the use of synthetic fertilizers and pesticides by industrial agriculture. However, the philosophy of organic farming was embodied in their communities – in their “organic way of life” – and, their organic farms were appropriately small.

However, the rapid growth in organic food markets attracted the interest of the mainstream industrial food system. By 2007, the mainstream supermarkets had taken over 47% of the organic foods market and 46% was controlled by specialty supermarkets, such as Whole Foods and Trader Joe's. Direct sales through small coops, farm stands, and farmers markets were left with just 7% percent of the organic market.⁹ Organic farming also became similarly dominated by large, specialized, “industrial organic farms” that could satisfy the minimum requirements of the new organic standards and meet the demands of the industrial food system at a lower cost. As organic foods became more industrialized, organic farms became larger.

The local food movement emerged in response to the “industrialization of organics.” As organic production moved to larger farms and into mainstream markets, organic consumers increasingly looked to farmers in their own communities to ensure the ecological and social integrity of their food. The local food movement began with roadside stands, farmers markets, and Community Supported Agriculture programs or CSAs. USDA statistics indicate the number of farmers markets in the U.S. increased from 1,755 to 8,144 between 1994 and 2013, increasing more than four-fold in less than 20 years.¹⁰ Current estimates by *Local Harvest*¹¹ indicate there were 2,700 CSAs in the U.S. in 2009, compared with less than 100 in 1990.¹² Local food sales had grown to \$5 billion by 2007 and were projected to reach \$11 billion by 2011.¹³ Although still less than 2% of all food sales, local foods is now the most dynamic sector of the U.S. food market. The vast majority of the farmers that sell directly to local customers are on small farms.

The potential for a new and different food system of the future can be seen most clearly in the growing number of local foods cooperatives or collaborations between farmers and consumers. Examples include, *Grown Locally*,¹⁴ *Idaho's Bounty*,¹⁵ *Viroqua Food Coop*,¹⁶ and *the Oklahoma Food Cooperative*.¹⁷ The Oklahoma Food Cooperative website lists 20 similar cooperatives in other states. The USDA Agricultural Marketing Service lists over 230 multi-farm “food hubs.”¹⁸ By cooperating, farmers can offer a wide variety of local products with purchase and delivery options ranging from CSA shares to on-line orders of individual items. These new food systems range in size from a dozen or so to hundreds of farmer/consumer members. I believe these innovative organizations represent the best hope for a sustainable food system for the future. All of the successful organizations provide opportunities to link purchasers of local foods to specific farms and farmers. If these linkages are to remain meaningful and if these new food systems are to be sustainable, the farms must remain small.

Farms inevitably become too big to be sustainable when they give profits priority over the well-being of land and people. In order to maximize economic efficiency and profitability, they

specialize, standardize, and consolidate control into larger management units, meaning larger farms. Their priority on economic efficiency invariably leads to extraction and exploitation of the natural and human resources that ultimately must sustain their long-run productivity. Certainly, big farms can be managed in ways that reduce the pollution of air, water, and soil with chemical and biological contaminants. They can even substitute organic for inorganic inputs. They can also consider the impacts of their management decisions on their land, their neighbors, and the people who eat their food. All of these things obviously reduce the negative social and ecological impacts of large farms. However, while these things are *necessary*, they are not *sufficient* for sustainability.

Ultimately, it is more economically efficient to extract from nature and exploit society than to regenerate and renew natural and human resources. Economic value is inherently individual, instrumental, and impersonal. There are simply no economic incentives to do anything *solely* for the benefit of society and certainly not for the benefit of future generations. This limits how much a large farmer is willing to do for the good of society or the future of humanity. Thus, farming operations that are designed and managed for maximum economic efficiency are fundamentally incapable of achieving sustainability. Large farms are not unsustainable because there are large but are large because they are unsustainable; because they give economic efficiency priority over social and ecological integrity.

Sustainability requires a fundamentally different approach or philosophy of farming than the industrial paradigm that causes farms to become too large. Human society is a part of nature, not apart from nature, and the economy is a part of society, and must ultimately conform to the needs of society. Natural ecosystems, human societies, and economies are all dynamic living systems, not the inanimate mechanisms of the industrial economic worldview. Sustainable farms must be redesigned in the image of a living biological organism rather than an inanimate economic mechanism. Healthy living organisms are characterized by holism, diversity and interdependence, rather than specialization, standardization, and consolidation of control. Efficiency and substitution are necessary for sustainability but are not sufficient. Sustainable farms ultimately must be managed as self-renewing and regenerative living organisms.

Whenever farms are redesigned for sustainability, they naturally tend toward a size that is appropriate to sustain the natural living ecosystems, societies, and economics within which they function and of which they are a part. Farms that are too large naturally become smaller farms as they become more sustainable – as they become *real* farms. There is nothing inherently wrong with doing things that are *necessary* for sustainability on large farms, such as reducing soil erosion and pollution and reducing reliance on non-renewable energy. Problems arise when an emphasis on reducing the negative ecological and social impacts of large farms becomes an excuse for not making the more fundamental changes that are absolutely essential to achieving sustainability. The *necessary* eventually becomes the enemy of the *sufficient* on large farms.

Sustainable agriculture will require a *culture* that is different from the culture of industrial agriculture. Culture can be defined as the means by which people collectively choose to limit their pursuit of individual self-interests. Cultural values tend to limit the behavior of individuals to those things that are considered good or at least acceptable for the good of the community and society as a whole. Culture may also be defined as the means by which people have learned to

survive and flourish in a particular place. People do not survive and flourish solely as individuals. People need positive relationships with other people in families, communities, and societies to give our lives quality and fullness. Agricultural sustainability does not mean a return to the small family farms of the past, but it does mean a return to the traditional culture of farming. People also need a sense of connectedness or oneness with nature to give purpose and meaning to life. The new culture of sustainable agriculture will limit the *size* of farms by changing the *motives* and *means* by which people choose to farm in the future.

The culture of sustainable farming will be same as the historical culture of *real* farming. Real farms are not just about making a living; they are a way of life. Real farms don't give economic efficiency or profits priority over the social and ethical aspects of quality of life. Real farmers don't mine their soil or diminish their neighbors' quality of life for the sake of economic efficiency. The word *farm* has always had multiple meanings. It 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 *fīrmō*, *fīrχumō* ("means of living, subsistence"), and from Proto-Indo-European *perkʷu-* ("life, strength, force").¹⁹ 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*, *fīrmus* ("firm, solid") and *fīrmitas* ("security, firmness").

Real farmers proudly identify with the richness of the historic multiple meanings of farming and reject agriculture as just another myopic profit-maximizing industry. Certainly, economic concepts such as "rent, revenue, tenant, and means of living" are historical aspects of farming. But, farming also has been 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.

Wendell Berry writes elegantly and insightfully about the culture of agriculture as a sense of place. He writes that to farm sustainably, the land must be "used well," meaning the farmers who use the land must "know it well, must be motivated to use it well, must know how to use it well, and must be able to afford to use it well."²⁰ He also writes about farming in harmony with the nature of place, that farmers must farm "farms they know and love, farms small enough to know and love, using methods they know and love, in the company of neighbors they know and love." Real farmers can only truly know, love, and care for so much land and so many people, meaning that to farm sustainably, their farms must be proportionally small.

People who talk of continuing trends tend to forget past cycles in farm size. The lands of pre-industrial feudal landlords eventually were divided into small farms. The large plantations of the Antebellum South were divided into small farms. The large collective farms of the old Soviet Union have been divided into small farms. These smaller farms are again being collected in to

large corporately controlled farming operations. But growing concerns for agricultural sustainability are slowing the momentum of agricultural industrialization and have sparked the beginning of another reversal. If it takes another revolution to change the direction of agriculture, so be it. Change is no longer optional, it is an absolute necessity.

There is an awakening among Americans that something is fundamentally wrong with our food system. More and more people are turning to natural, organic, and locally grown foods in their search for “real food.” They are learning that it's only possible to produce “real food” on “real farms.” A real farm is not just an economic enterprise; it is also a way of life and a sacred trust. It's not just about production and profits; it's about meeting the real needs of real people, all people, both today and in the future. Real farmers care about their families, they care about the land, they care about their neighbors, they care about their customers, they care about society, and the future of humanity. A new renaissance and reversal of trends is emerging in the search for real food from real farms, and the real farms of the future will be appropriately small.

End Notes

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¹⁴ Visit the *Grown Locally* website at <http://www.grownlocally.com> .

¹⁵ Visit the *Idaho's Bounty* website at <http://www.idahosbounty.org/> .

¹⁶ Visit Viroqua Food Coop website at <http://viroquafood.coop/> .

¹⁷ Visit the *Oklahoma Food Cooperative* website at <http://www.oklahomafood.coop/> , list of other cooperatives: <http://www.oklahomafood.coop/Display.aspx?cn=otherstates> .

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