American agriculture is in crisis. Until recently, the crisis had been a quiet one. No one wanted to talk about it. Thousands of farm families were being forced off the land, but we were being told by the agricultural establishment that their exodus was inevitable - in fact, was a sign of progress. Those who failed were simply the victims of their own inefficiency - their inability to keep up with changing times, their inability to compete.

But in fact it's not inefficiency or resistance to change that is forcing families to leave their farms. It's our collective obsession with our short-run self-interests. It's our worship of markets as the only true arbitrators of value. It's our acceptance of corporate greed as the only road to true prosperity. This crisis was neither inevitable, nor was it a sign of progress. The people of America need to know the truth. The time for quietness has passed.

With farm prices at record low levels for two years running, the agriculture establishment has finally begun to take notice. Congress has passed emergency farm legislation. But even now, the farm crisis is being blamed on such mundane things as "exceptionally good" global weather, problems in Pacific Rim financial markets, European trade restrictions, and an inadequate government "safety net." The crisis is a simple matter of supply and demand, they say.

The only solutions they propose are to tinker with government policy or, better yet, to simply wait for markets to recover. The only alternatives farmers are being offered are to get big enough to be competitive, get a corporate contract to reduce risks, or get out of farming. But getting big, giving in, or getting out are not the only alternatives. There are better alternatives for farmers and for society. The people need to be told the truth. The time for quietness has passed.

**Chronic Crisis in American Agriculture**

Crisis in agriculture is a chronic symptom of the type of agriculture we have been promoting in this country for the past 50 years. Reoccurring financial crises are the means by which we allow farms to become larger and more specialized so that consumers can have more cheap food - and the means by which we free people from the "drudgery of farming" to find better occupations in town. Or from another perspective, reoccurring crisis is the means by which we force farmers off the land.

The promise of profits lures farmers to buy into new cost-cutting and production-enhancing technologies, but the resulting increases in production cause prices to fall, eliminating previous profits for the innovators, and driving the laggards out of business. This technology treadmill has been driving farmers off the land for decades.

But the current crisis has an added dimension. The current crisis reflects a brazen attempt by the giant corporations to take control of agriculture away from family farms, to move beyond specialization and standardization, to centralize command and control - to complete the industrialization of agriculture. This final stage of industrialization is not only destroying the lives of farm families - it's polluting the natural environment, depleting the natural resource base, and destroying rural communities. The industrialization of agriculture is not good for America. The people need to be told the truth. The time for quietness has passed.

As I recall, the creed of the Future Farmers of America begins with the words "I believe in the future of farming with a faith born not of words but of deeds." For years I believed that creed and have spent much of my life trying to live by that creed, but I simply can no longer believe it is true. There is no future of farming - at least not farming as we have known it - if the current industrialization of agriculture continues. Every time the average farm size goes up, the number of farmers left goes down. Every time a farmer signs a corporate production contract, an independent farmer becomes a "corporate hired hand." With every corporate merger in the global food system, the future of farming in America grows dimmer.

The food and fiber industry most certainly has a future; people will always need food, clothing, and shelter; and someone will provide them. But there will be no future
for farming - not true farming - not unless we have the courage to challenge and disprove the conventional wisdom that farmers must get bigger, give in to corporate control, or get out. But there are better alternatives for farmers and for society. We must find the courage to challenge the conventional wisdom. People need to be told the truth about the future of farming. It’s time for a revolution in American agriculture. The time for quietness has passed.

**ROOTS OF CRISIS - ECONOMICS OF SELF-INTERESTS**

What is happening in agriculture today is no different from what has already happened in most other sectors of the economy - at least not in concept. We are told that industrialization is the inevitable consequence of human enlightenment and technological progress. But the industrialization of agriculture is neither enlightened nor progressive. It is being driven by the same force that now threatens the integrity of our democratic society and the health of our natural environment - a blind faith in the economics of narrow, short-run self-interest. Industrialists have a deeply held faith that the promise of more profits, no matter how small, is the best means of allocating resources - whether it is allocation of people among alternative occupations, land among alternative uses, money among investments, or people among communities. All things that are possible and profitable are done in the name of economic progress.

However, the science of economics was never meant to be limited to the pursuit of the narrow, short-run self-interest of individuals. Adam Smith proclaimed more than 200 years ago, in his The Wealth of Nations, that pursuing individual self-interests results in the greatest good for society as a whole - "as if by an invisible hand." Smith's words revolutionized economic thinking and remain the foundation for conventional economic thought. But Smith certainly did not claim that only the narrow self-interests of individuals were important. Instead, he simply observed that the broad interest of society in general seemed to be well served in the process of individuals pursuing their own short-run self-interest. Pursuit of self-interest seemed but a convenient means to a far nobler end.

Smith's invisible hand probably worked reasonably well 200 years ago - given the economy and society of that time. Most economic enterprises were small family operations. For such operations, land, labor, capital, and management often resided in essentially the same entity. Farming was still the dominant occupation. Few enterprises were large enough to have any impact on the marketplace as a whole. It was fairly easy for people to take on a new enterprise that seemed profitable and to drop one that seemed to be losing money. Thus, profits were quickly competed away and losses didn't persist for long in highly competitive local markets. In general, communications between individual producers and consumers were clear back then because their connections were simple and often personal. All of these things were essential in the transformation of pursuit of self-interests into societal good.

In Smith's times, human populations were small enough and technologies were sufficiently benign that people could have little permanent impact on their natural environment - at least not on a global scale. Back then, strong cultural, moral, and social values dictated the norms and standards of "acceptable" individual behavior. Smith could not conceive of a society in which the welfare of the poor and hungry would not matter, or where people in general would behave in unethical or immoral ways. "No society can surely be flourishing and happy, on which the far greater part of the members are poor and miserable" (p. 36).

In the environment of 200 years ago, when conventional economics was born, pursuit of self-interest might have served the interests of society reasonably well. But the world has changed over the past two centuries. Today most sectors of the U.S. economy are dominated by large corporate enterprises. Corporations are inherently non-human entities - regardless of what the Supreme Court has said and regardless of the nature of their managers and stockholders. The resources of land, labor, capital, and management are now separate, sometimes divided even among nations. And corporate profits are far larger than any concept of "normal" profit envisioned in classical economics. Producers and consumers have become disconnected, geographically and conceptually, as a consequence of industrialization. Consumers no longer have any personal knowledge of where their products come from or of who is involved in their production. They must rely on a complex set of standards, rules, and regulations for product information, and today's advertising consists of "disinformation" by design.

In today's society there are no logical reasons to believe that pursuit of self-interests is the best means of meeting the needs of society. But powerful economic and political interests have tremendous stakes in maintaining the belief in an "invisible hand." It justifies their selfishness and greed. It legitimizes their endless accumulation of economic wealth. Thoughtful economists know the assumptions which must hold for
truly competitive markets are no longer valid. But few have the courage to speak out. The economic assumptions of 200 years ago are no longer adequate. It's time to rethink the economic foundation for our society. We need to face up to the truth.

In addition, human activities are no longer ecologically benign - if they ever really were. The pressures of growing populations and rising per capita consumption are now depleting resources of the land far faster than they can be regenerated by nature. Wastes and contaminants from human activities are being generated at rates far in excess of the capacity of the natural environment to absorb and detoxify them. Fossil fuels, the engine of 20th century economic development, are being depleted at rates infinitely faster than they can ever be replenished. Human population pressures are destroying other biological species, upon which the survival of humanity may be ultimately depend.

The human species is now capable of destroying almost everything that makes up the biosphere we call Earth, including humanity itself. The economics of Adam Smith didn't address environmental issues, and neither does the free market economics of today. We need to face up to the truth.

Social and ethical values no longer constrain the expression of selfishness. The society of Smith's day was weak on economics - hunger, disease, and early death were common - but it had a strong cultural and moral foundation. However, that social and ethical foundation has been seriously eroded over the past 200 years - by glorification of greed. Civil litigation and criminal prosecution seem to be the only limits to unethical and immoral pursuit of profit and growth. Concerns of the affluent for today's poor seem to be limited to concerns that welfare benefits may be too high or that they will be mugged or robbed if the poor become too desperate. Smith's defense of the pursuit of self-interest must be reconsidered within the context of today's society - a society that is now strong on economics but weak on community and morality. We need to face up to the truth.

The economic theories of two centuries are no longer relevant to the world of today. The pursuit of greed no longer creates societal good - it simply encourages more greed. The greedy now have control of the economy and of much of society. And, they won't give up without a fight. It's time for a new revolution in America - a revolution that will free people from the tyranny of the economics of short-run self-interests. The new revolution will require a rethinking of and a direct challenge to the fundamental principles that underlie conventional economic thinking - line by line, row by row, from the ground up. Any effort that fails to attack the problem at its root cause ultimately is destined to fail. The root cause of the current crisis in agriculture is the same as the root cause of ecological degradation and of social and moral decay of society in general - a society that blindly accepts the economic bottom line as if it were the word of God. It's time to face up to the truth in America. The time for quietness has passed.

**SUSTAINABILITY - THE NEW REVOLUTION**

This new American Revolution is being fomented under the conceptual umbrella of "sustainability." In farming, we talk about the sustainable agriculture movement, but there are also movements in sustainable forestry, sustainable communities, sustainable development, and sustainable society in general. The sustainability movement presents a direct challenge to conventional economic thinking. Sustainability includes concern for self-interests, but it goes beyond to protecting interests that are shared with others, and the interests of future generations in which we have not even a share. All of the sustainability movements share a common goal, to meet the needs of the present while leaving equal or better opportunities for those to follow - to apply the Golden Rule across generations.

There is a growing consensus among those marching under the banner of sustainability that for anything to be sustainable it must be ecologically sound, economically viable, and socially responsible. All three are necessary, and none alone nor any pair of two is sufficient. Economic viability is about self-interest, social responsibility is a matter of shared interest, and ecological soundness ultimately is an ethical or moral responsibility that we choose to accept for purely altruistic reasons. Self-interest, shared interests, and altruistic interests are all considered positive and worthy of pursuit. Thus, the pursuit of sustainability is a pursuit of "enlightened self-interests." Without this enlightenment, we will not choose long-run sustainability over short-run greed.

The sustainability revolution is not one that will be fought on the battlefield, in the streets, or even necessarily in the halls of Congress. Instead, it's a battle for the hearts and minds of the American people. We need to tell people the truth about what is happening in America today and why. We need to tell them the truth about the need for a new economics of sustainability - an economics that will sustain people and protect the environment, not just promote industrial development and economic growth.
And we need to give them common sense reasons why the old system cannot be sustained, and why a new sustainable system is not a luxury but an absolute necessity. We need to talk boldly about the need for a new economics of enlightenment. The time for quietness has passed.

**Sustainability and Small Farms**

Agriculture may well be the field upon which the battle for the hearts and minds of Americans is fought - at least initially. The best hope for building a sustainable society may be to begin by building a more sustainable agriculture - for without a sustainable agriculture, human life on earth is not sustainable. The best hope for building a more sustainable agriculture may be to begin by ensuring the future of smaller farm families - for without farmers, agriculture cannot be sustained. Corporate hired hands may be good people, fully deserving of dignity and respect, but they are not farmers. A corporately controlled, large-scale, industrial agriculture simply is not sustainable.

Sustainable farms will not only be independently owned, but they will be smaller farms as well. Sustainable farming is a product of balance, or harmony, among the ecological, economic, and social dimensions of a farming system. A smaller farm lacking this harmony is less likely to be sustainable than a larger farm that is more in harmony. But there are logical reasons to believe that balance and harmony will be easier to achieve with - if not absolutely require - a large number of smaller farms rather than a small number of large farms.

Nature is inherently diverse. Geographic regions are different, watersheds are different, farms are different, and fields are even different - both among and within. Industrial agriculture treats fields, farms, watersheds, and even regions as if they were all pretty much the same. Certainly industrial systems can be fine-tuned a bit here and there to make production practices of one region fit another. Each state has a bit different set of best management practices, and some further adjustments are made from farm to farm and field to field. But the fundamental systems of conventional production are all pretty much the same.

The same breeds and varieties, fertilizers and feeds, pesticides and antibiotics, machinery and equipment, and business and marketing strategies are used across fields, farms, and watersheds, in all regions of the country. The goal of research is to find universal solutions to common problems - to find ways to twist, bend, and force nature to conform to some universal production and distribution process. Industrial, large-scale mass production requires this type of uniformity. Biotechnology is but the latest in a long string of futile efforts to force uniformity upon nature.

But nature is diverse. Large-scale production creates inherent conflicts with this diverse nature - and inherently threatens sustainability. Farms that conform to their ecological niches avoid such conflicts. Some ecological niches may be large, but most are quite small. Current concerns for agricultural sustainability are based on strong and growing evidence that most farms have already outgrown their ecological niches and could be more sustainable if they were smaller.

Sustainable farms must also be of a size consistent with their markets. Conventional wisdom is that most markets are mass markets, and, thus, farms must be large - or if not must market collectively. The conventional wisdom is wrong. Markets are made up of individual consumers, and as consumers - as people - we are all different. We don't all want the same things. In fact, each of us actually prefers something just a little bit different and, thus, values the same things a bit differently.

Mass markets are created by lumping together a lot of people who are willing to accept the same basic thing - even though they might not prefer them. If mass markets can be created, the food system can be industrialized, and dollar and cent food costs will be lower. The lower price is a bribe to consumers to accept something other than what they actually would prefer. Typically, they must be coerced as well as bribed to accept what the industrial system has to offer. That's why Americans spend more for advertising and packaging of food than they pay the farmer to produce it. It costs more to convince people to buy industrial food products than it does to produce them.

Eighty cents of each dollar spent for food goes for processing, transportation, packaging, advertising, and other marketing services. One key to economic sustainability of small farms is to capture a larger share of the consumer's food dollar by performing some, and bypassing others, of these marketing services. Farmers currently get only about 10 cents of each food dollar as a return for what they contribute to production; the other 10 cents goes for purchased inputs. By tailoring production to consumer niche markets, and selling more directly to consumers, small farmers have an opportunity to make more profits without becoming big farmers.

The conventional wisdom is that niche-marketing
opportunities are limited and can support only a handful of farmers. Once again, the conventional wisdom is wrong. Since all people want something slightly different, the ultimate in niche marketing would be to give every individual precisely what he or she wants. All consumer markets are made up of individuals - totally, not just in part. Thus, all markets in total are made up of niche markets. The question is not how many niches exist, but instead how many different niches does it make sense to serve? The relevant answer, at least at present, is that more than enough market niches exist to support as many small farmers as might choose to direct-market to consumers. A lack of niche markets need not place a lower limit on the size of farms. Farms can be as many and as small as needed to accommodate the ecological niches of nature.

The most compelling argument in support of sustainable farms being smaller is that sustainable farms must be more "intensively" managed. Wendell Berry puts it most succinctly in his book What Are People For: "...if agriculture is to remain productive, it must preserve the land and the fertility and ecological health of the land; the land, that is, must be used well. A further requirement, therefore, is that if the land is to be used well, the people who use it must know it well, must be highly motivated to use it well, must know how to use it well, must have time to use it well, and must be able to afford to use it well" (p. 147). Intensive management is possible only if farmers have an intensive relationship with the land - if they know it, care about it, know how to care for it, take time to care for it, and can afford to care for it - only if they love it.

Industrialization degrades and destroys the relationship between the farmer and the land. Industrialization is management "extensive." Specialization, standardization, and centralization allow each farmer to cover more land, supervise more workers, and handle more dollars. Industrial management is "extensive" in that each manager is able to manage more resources. Extensive management makes it possible for each farmer to make more profits in total, even if profits per unit of production are less. But, as the attention of each farmer is spread over more land, more laborers, and more capital, each acre of land, each worker, and each dollar receives less personal attention. The relationship of the farmer with the land, and with the people of the land, is weakened. If the large farmer no longer knows the land, no longer cares about it, forgets how to care for it, doesn't have time to care for it, or can't afford to care about it, how well will the land be used? How can it remain productive? How can a large farm be sustainable?

A small farm can be managed "intensively." Intensive management allows a farmer to manage less land, using less labor, while handling fewer dollars. By managing fewer resources more intensively, the farmer is able to make more profit per unit of output and, thus, make more total profits - even if total production or output is less. As the farmer has more time and attention to give to each acre of land, each worker, and each dollar, the farmer's relationship to the land and the people of the land is strengthened. The small farmer has an opportunity to know the land, to care about it, to learn how to care for it, has time to care for it, and can afford to care about it. The land on a small farm can be used well and can remain productive. A small farm can be sustainable.

The fundamental purpose of farming is to harvest solar energy - to transform sunlight into food and fiber for human use. It might seem that even God favors the larger farmer because a large farm covers more space, thus, catching more sunshine and rain. But God also has given us a choice of making either wise or foolish use of the gifts of nature with which we are entrusted. Our industrial agriculture currently uses more energy from fossil fuels than it captures in solar energy from the sun. This can hardly be deemed wise and efficient use. But, as a consequence, a small farmer can be more economically, socially, and ecologically viable than a large farmer, simply by being a more effective harvester of the solar energy. In essence, a more intensive manager is a better harvester of the sun.

Some ecosystems and farming systems are easier to manage effectively than are others and, thus, require less attention per unit of resources to manage sustainably. Those requiring less intensive management can be larger without sacrificing sustainability. For example, a sustainable wheat/forage/cattle farm may be far larger than a sustainable vegetable/berry/poultry farm. But the sustainable wheat/forage/cattle farm is likely to be far smaller than the typical specialized wheat farm, forage farm, or cattle ranch. And the sustainable vegetable/berry/poultry farm is likely to be far smaller than the typical specialized vegetable farm, berry farm, or poultry operation.

Sustainable farms need not be small in terms of acres farmed or total production, but they need to be managed intensively. And intensively managed farms will be smaller than will otherwise similar farms that are managed extensively. Neither land nor people can be sustained unless they are given the attention, care, and affection they need to survive, thrive, and prosper. That attention, care, and affection can be more easily given on
a smaller than larger farm.

The best alternatives for American farmers are neither to get bigger, nor give in to corporate control, nor to get out. The best alternative for American farmers, and for society in general, is for farmers to find ways to farm more sustainably - to balance economic, ecological, and social concerns; to find harmony among self-interests, shared interests, and altruistic interests; to pursue their "enlightened" self-interests instead of greed. American farmers need to be told the truth about their alternatives. Farms of the future must be smaller, not larger. It's time for a revolution in American agriculture. The time for quietness has passed.

**It's Time for a New American Revolution**

About a year and a half ago, I found myself recovering from unanticipated open-heart surgery. I was fortunate enough to have previously checked out a book, *The Life and Major Works of Thomas Paine*. Thomas Paine, as you may recall from your history lessons, was a writer during the American Revolution. He was credited with articulating the ideas of the revolution in terms that could be understood by the "common man." In fact, he signed his early writings with the pen name "Common Sense." Paine's pamphlets were distributed widely throughout the colonies and invariably regenerated public support for the cause of democracy - saving the revolution from failure on more than one occasion. The writings of Thomas Paine provide some valuable insights into how to keep a revolution from failing - at least when the cause makes common sense.

First, Paine gave no quarter to the enemy of freedom and democracy - the British monarchy. Nothing in Paine's writings could be mistaken for impartial objectivity when he was critiquing the sins of the monarchy. He stuck with facts and stated the truth, but he bothered with only one set of facts and one side of the truth. He left out some of the facts, the other side of the truth, and the lies to be told by his opponents - the Loyalists, who opposed the revolution.

Second, Paine's papers always went beyond criticism. He always went on to extol the great benefits that would be realized by the colonies once they had shed the yoke of Great Britain. He painted a vision for the future of a free and democratic America. He countered each British claim of what the colonies would lose with a counter-claim of what the colonies would gain once they had won the Revolution.

Finally, Paine's writings never gave so much as a hint of doubt that the American colonists eventually would win their war for independence. When the British army occupied Philadelphia, for example, Paine called it clear and convincing evidence that the British could never win the war. If half of their army was required to hold just one town, how could they possibly control all of the vast regions of the American colonies? It was just plain "common sense" - the cause of the Revolution could not be denied.

We need a Thomas Paine approach to the new movement to revolutionize American society. I am not talking about gradual, incremental change in practices and methods of doing business; I am talking about a fundamentally different philosophy of life. The differences between the industrial and a post-industrial society will be as great as the differences between monarchy and democracy.

The current enemy is not a misguided monarchy but instead is a misguided economy. The tyranny is not a kingdom, but instead is the marketplace. The epitome of the economics of greed is the publicly held industrial corporation. The publicly held corporation has no heart, it has no soul, and it is motivated solely by profit and growth. Corporations pollute and waste natural resources, and they degrade and use up people - and they will corrupt any political process that attempts to keep them from doing either. Anything that has no value in the marketplace is worthless to the corporation. The people who work for corporations have no choice but to feed the unending corporate hunger for every greater profits and ever faster growth.

Corporate industrialization will do for agriculture what it has done for other sectors of the economy. It will pollute the natural environment - the water, the soil, and the air. Farmers and farm workers, like factory workers, will suffer ill health, low pay, and eventual abandonment - as agri-industries find other people in other places who will work even harder, in more dangerous environments, for even less pay. The safety and healthfulness of the food supply will continue to deteriorate as a consequence of the inevitable race to the bottom, to see which corporation can produce the most stuff cheapest, so they can drive the competition out of business and raise prices to whatever level they choose.

But the industrial era is over. The era of information and knowledge is upon us. Knowledge and information are quickly replacing capital as the source of new productivity and wealth. Potential productivity is now embodied in the unique ability of people to think and
create, not in raw materials and factories. The main reason corporations continue to consolidate and grow is to gain greater economic and political power - to exploit workers, taxpayers, and consumers so they can continue to show profits and grow. In the industrial era, bigger seemed to be better. But, in the new post-industrial era, small may be smarter. We are living in a new era of human and economic development.

Small businesses allow people to express their individuality and creativity - to use their unique abilities to think and create. The good paying new jobs in the general economy are being created by small businesses, while the old industrial giants continue to downsize and lay off workers by the thousands. If the future is to be better than the past, it must belong to the small, not the large. The future of farming belongs to the small farms, not to the large. The people need to be told the truth.

Small farms allow people to fit their uniqueness to their ecological niche and to the unique tastes and preferences of consumers. Small farms are management intensive - they allow farmers to rely more on themselves and less on borrowed capital and rented land. Intensive management allows farmers to break away from chronic crisis - to get off the treadmill of larger and fewer, which requires the survivors to run faster and faster just to stay in the same place. Small farms can be real farms - where farmers have the time and the money to take care of their families, their land, and their communities. Small farms allow people to live in harmony again - with themselves, their neighbors, and the things of nature. Small farms can be farmed sustainably - benefiting farm families, rural communities, the natural environment, and society in general.

There is a better way to farm and a better way to live. It's time for a revolution in American agriculture. The time for quietness has passed.

Sustainability requires diversity, flexibility, site specificity, and decentralized decision making. Farms of the future must be as small as the ecological niches to which they must conform to be in harmony with the diversity of nature. Farms of the future must be as small as the market niches to which they must conform to be in harmony with the diversity of human nature. The only farms with a future will be farms that are sustainable - that are economically viable, ecologically sound, and socially responsible. Thus, farms of the future will be smaller farms. The inevitability of the industrialization of agriculture is a lie. Sustainable small farms are a better alternative than getting bigger, giving in, or getting out. The American public must be told the truth. It's time for a small farm revolution in American agriculture. The time for quietness has passed.