

## **21<sup>st</sup> Century Agriculture:**

### **The end of the American farm or the new American farm?**

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The American farm of the 21<sup>st</sup> century will be different. This is perhaps the only thing we can say about 21<sup>st</sup> century agriculture with any degree of confidence. Farms of the future will be different from farms of the present as well as different from farms of the past. In addition, the least accurate prediction concerning how farms will be different would be simply extrapolation from the past, through the present, and into the future. All trends eventually change direction – the world works in cycles. Everything that goes up comes down and everything that goes around comes back around. Admittedly, the past and the present always contain the seeds of the future. However, we humans lack the ability to foretell the future with accuracy – although our human imagination and curiosity continually tempts us to try.

In his book, “The End of Agriculture in the American Portfolio,” economist Steven C. Blank envisions the *end of the American farm* – a vision of the future grudgingly shared by a growing number of people in the conventional agricultural establishment. American agriculture is destined to end, he argues, but this should be no cause for alarm. He contends that the end of American agricultural production is the result of a natural process that is making us all better off. He foresees a time in the not too distant future when the U.S. will import nearly all of its foodstuffs from other countries. Costs of land and labor in the U.S. will be too high for American farmers to be competitive in a global food economy. He argues that creeping globalization of the food system is not some corporate conspiracy but is simply the result of the struggles of farmers and agribusiness, in America and around the world, logically pursuing their individual economic self-interests. This pursuit of individual economic self-interest ultimately will best serve the long run interests of society as a whole, he claims.

Blank’s fundamental arguments are based on the basic premise that economic considerations ultimately will prevail over all others. First American farmers will be forced to abandon production of basic agricultural commodities – corn, soybeans, hogs, cattle, cotton, rice, etc. – in favor of high-investment, high-risk crops – such as wine grapes, berries, organic vegetables, etc. High-risk, high-return enterprises will be the last agricultural alternatives offering farmers any hope of realizing profits from employing high cost land and labor. However, increasing affluence will allow increasing numbers of people to escape from the cities in search of a quieter, safer, healthier lifestyle in the countryside. As land prices continue to rise, agribusiness eventually will abandon America completely because they will be able to employ their management and capital more profitably in other countries.

Although, Blank doesn't make a major issue of it, he assumes that corporate agribusiness will replace family farms because corporations are "more efficient" farmers than are families. As American agriculture comes increasingly under the control of corporate agribusiness – through ownership, contracting, or various types of strategic alliances – it will respond even more efficiently to competitive global markets. Once corporate ownership becomes separated from management, through public stock offerings, a corporation becomes incapable of pursuing any objectives other than maximum profit and growth – its stockholders will accept nothing less. Corporations are not human; they have no heart or soul. Thus, corporations have no sentimental attachment to any particular parcel of land, community, geographic region, or nation. If economic costs of production are less in some country other than in the US, as they almost certainly will be, then that's where America's food will be produced. Agricultural technology, capital, and management can be shifted easily from America to other countries around the globe – as we have seen in the production of other industrial goods.

However, Blank claims we should not be concerned because Americans still will be well fed. This is all a quite logical result of the working of a free market economy, he says. It simply will be more efficient in the future to produce America's food elsewhere on the globe. In fact, America's transition out of agriculture will be a sign of national economic progress. Agriculture is any nation's first step toward economic development – abandoning hunting and gathering for a more efficient means of providing food and fiber. However, agriculture requires only low-skilled, manual labor and few management skills, and thus, farming is not capable of sustaining economic progress over time. Manufacturing represents a natural evolution from unskilled labor to skilled labor, to mechanization, and management of large, complex industrial systems of production. Over the past two centuries, industrialization has been the mark of economic progress as nations move from agriculture to manufacturing.

However, as we enter the 21<sup>st</sup> century, America is moving beyond industrialization – to a new post-industrial era of economic development. We already have seen the foundation of the US economy shift from manufacturing to the service sector of the economy. Some service jobs tend to be low-skill and low paying, such as fast foods and electronic data entry. However, many service positions are high-skill office work, requiring high levels of education and training – such as finance, brokerage, marketing, communications, education, research, systems design, and all sorts of consulting. Such jobs are more productive and command higher salaries than do manufacturing jobs.

In the 21<sup>st</sup> century, America will become part of the "new economy" – new information systems will allow corporations in the "more advanced" nations to create, manage, and control the agricultural, manufacturing, and service sectors of the economies of other nations. Those who create, manage, and control things inevitably reap greater economic benefits than those who actually produce, manufacture, and do things. Agriculture and manufacturing are but stepping stones to higher levels of economic

development. Blank contends that it's simply time for America to abandon agriculture and move ahead to its next stage of economic development.

Greater specialization among nations is made possible by globalization of national economies. In a *seamless*, global economy, some nations can specialize in agriculture, others in manufacturing, others in services, and others in providing *homes* for corporations that create, manage, and control the economic enterprises of other nations. Current World Trade negotiations are being carried out for the expressed purpose of creating a single global economy within which all nations are free to pursue their economic competitive advantages. Anything that restricts trade is seen as an obstacle to global economic progress – an obstacle that must be removed for the sake of greater economic efficiency.

In summary, Blank believes that the open spaces of rural America will be transformed from farms into living space for a growing and increasingly affluent population fleeing the problems of urbanization. Cornfields are unable to compete with condominiums for farmland. The San Joaquin Valley can't compete with the Silicone Valley for farm workers. Farming is a low-skilled, "primary" industry that has no place in an advanced, "high-tech" economy. Rural ways of life will give way to urban ways of life, as farms become residential ranchettes. Virtual communities of people, interconnected by the Internet, will replace real communities of people who meet face-to-face in church or at the grocery store. Agriculture will no longer be a significant factor in the future rural economy. Most people in rural communities will be employed elsewhere -- perhaps by companies thousands of miles away. Americans will be well fed, but our food will come from other countries where it can be produced cheaper. People of all nations will benefit as they are allowed to pursue their economic competitive advantages in a global economy. Today's farmers will find future employment, but not as farmers, or at least as farmers in America. Blank claims the only forms of truly sustainable agriculture in America will be those compatible with urban life – mainly golf courses, ornamental nurseries, and turf farms. The American farm will be a thing of the past.

Blank's conclusions regarding the future of American agriculture, and of the global economy, are all quite reasonable and logical within the context of contemporary economic thinking. If the usual assumptions of economic theory were an accurate reflection of today's reality, then Blank's predictions would be quite reasonable. In fact, if the world, at some point in the future, completely abandons its common sense for some pseudo-economic reality, then Blank's predictions might actually come to pass. Admittedly, economics has become the dominant *religion* of our American society, and it is being rapidly spread around the world. But, people have not yet abandoned their common sense – at least not completely. There is still hope that newly enlightened thinking will prevail over the dogma of economics, that the twenty-first century will not bring the *end of the American farm*, but instead, will bring the emergence of a *new American farm*.

Challenging the Conventional Wisdom of Economics

The conventional economic wisdom in America today seems to be that only *the markets* are capable of ensuring that the right things are done, and are done efficiently. Supply and demand are seen as the only true arbiters of value. If something is profitable, it should be done, if it is unprofitable, it shouldn't. Anything that interferes with the markets; the government, public attitudes, or cultural values, for example; by definition creates economic inefficiency and is bad for society. Few people are aware of the origin of these *beliefs*, and even fewer seem willing to challenge them. In fact, the few who dare to question the sanctity of the markets are quickly attacked by people in powerful places with obvious self-interest in perpetuating *the myth of the markets* -- including an army of economists.

The current belief in the sanctity of markets can be traced back to statements by the British Economist, Adam Smith, in his book, The Wealth of Nations, published in 1776. "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self love, and never talk to them of our necessities but of their advantages" (p. 7). Later, in reference to trade, Smith states, "he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention" (p. 199). These statements provided the foundation for contemporary economic *wisdom* -- that pursuit of short run self-interests is transformed into achievement of the public good, as if by an *invisible hand*.

From Adam Smith's observations of more than 200 years ago, neo-classical economists developed the fundamental assumptions that underlie "free market" economic thinking even today. Although contemporary economists try desperately to rationalize arguments to the contrary, these conditions must hold before the *invisible hand* of competitive capitalism can transform the pursuit of individual short-run self-interest into the greater long-run good of society in general.

First, markets must be economically competitive – meaning numbers of buyers and sellers so large that no single buyer or seller can have any noticeable effect on the overall market. In such markets, no one has the power to retain profits by exploiting anyone else. It must be easy for new sellers to enter enterprises that are profitable and easy for sellers to get out of unprofitable enterprises, so that producers are able to respond to market signals of consumers' wants and needs. Consumers must have clear and accurate information concerning whether the things they buy will actually meet their wants and needs. And finally, consumers must be *sovereigns* – their tastes and preferences must reflect their basic values – their tastes and preferences untainted by persuasive influences.

None of these assumptions holds in today's society. Today agricultural markets are dominated by the large agribusiness corporations, certainly at every level other than farming, and increasingly even at the farm level. In addition, it is not easy to get into or out of any aspect of agriculture, and it is becoming increasingly harder to even get into or out of farming. Consumers don't get accurate, unbiased information concerning the products they buy, but instead get disinformation by design, disguised as advertising.

Finally, consumers are no longer sovereigns. The food industry spends billions of dollars on advertising designed specifically to bend and shape consumers tastes and preferences to accommodate mass production and mass distribution, which enable corporate control of agriculture. There is no logical reason to believe that the corporate agriculture of today is evolving to meet the changing needs or wants of consumers.

Instead, corporate agriculture today is designed specifically to generate profits and growth for corporate investors. In fact, we no longer have a competitive, capitalistic agricultural economy. Capitalism requires that individuals make individual decisions in a competitive market environment. As corporations extend their control horizontally “within” the same functional levels, such as marketing, storage, transportation, processing, or retailing, they increase their ability to protect profits from competitors. As corporations extend their control vertically, “across” functional levels, including additional different stages of production and marketing, they gain control over decisions concerning how much of what is produced, when it is produced, how it is produced and for whom. Those decisions are made to maximize their short-run profits and growth, not to meet the long-run needs of society.

In essence, as agriculture has moved from competitive capitalism to corporatism, it has changed from a market economy to a “central planned” economy. Central planning didn’t work for the Communists, and it won’t work for true Capitalists. The problem wasn’t that the Communists were not smart enough or that their computers weren’t large enough. Central planning is a fundamentally *wrong-headed* approach to managing an economy – for corporations as well as governments. The corporate system of food production will prove to be fundamentally incapable of effectively meeting the real needs of people.

Steven Blank’s vision of the future would place global food production under the control of a handful of multinational corporations that would decide how much of what kind of food is produced where, and who gets to consume it. Americans would be at least as dependent on the rest of the world for food as we are today for oil. Perhaps we could keep the food imports flowing, as we maintain the inflow of oil today. But, how large a military force would it take? What new “Organization of Food Exporting Countries” might be formed to control the market? How many “small wars” would we have to fight to keep a “renegade country” from reducing our supply of food? How many people would we eventually have to kill? Would “cheap food” be worth the cost we might ultimately be forced to pay?

### Toward a More Enlightened Future

Thankfully, as society becomes more enlightened, we are beginning to understand the true costs of cheap food. We are beginning to realize that the industrialization of agriculture, while enhancing economic efficiency and reducing food costs, has brought with it unanticipated ecological and social costs. The industrialization of agriculture, characterized by specialization, standardization, and centralization of control, has put farmers in direct conflict with their ecological, social, and economic environment. Cheap food most certainly has not benefited most farmers economically. As farms have

become more specialized and more mechanized, they have become larger in size, and thus, fewer in number. The struggle for ever-greater economic efficiency has forced many farmers to fail so that a few might survive – by buying their failed neighbor's land and growing larger. Does it really make sense to displace farmers of other countries as we have displaced ours – in our continuing pursuit of even cheaper food?

Also, we are beginning to realize that we are destroying our natural environment in the process of trying to produce cheap food. We are mining the soil through erosion and depletion of its natural productivity in the process of maximizing production and minimizing dollar and cent costs of production. We are polluting our streams and groundwater with residues from the pesticides and commercial fertilizers necessary for large-scale, specialized industrial crop production and with wastes from giant confinement animal feeding factories. We are destroying the genetic diversity, both below and above the soil, which is necessary to support nature's means of capturing and transforming solar energy into energy for human uses. Does it really make sense to export our ecologically destructive farming methods to other nations – in our continuing quest for cheap food?

We are just beginning to realize that we are destroying the social fabric of our society in the process of trying to make agriculture more efficient. We are destroying opportunities for people to lead productive, successful lives. We are turning thinking, innovative, creative farmers into tractor drivers and hog house janitors. There can be dignity in all work, but all people should have opportunities to express their full human potential. Consolidation of decision-making concentrates opportunities among the privileged few while leaving the many without hope for a rewarding future. Industrial specialization also tends to separate people within families, within communities, and within nations. We are just beginning to realize that industrialization destroys the human relationships needed to support a civilized society. Does it make sense to destroy the social and cultural fabric of other countries – in our quest for cheaper food?

The outdated economics that supports agricultural industrialization for the sake of economic efficiency is fundamentally incapable of dealing effectively with either the environmental or the social challenges confronting agriculture today. In economics, the environment and society are external or outside of the decision making process – something that may impact or be impacted by decisions but not part of the process. In reality, the economy, environment, and society all are parts of the same inseparable whole. Society needs a more enlightened system of decision-making – one capable of integrating economic, ecological, and social decisions.

It's true, people will pursue their self-interest, – it is an inherent aspect of being human, as conventional economics assumes. But, people, by nature, do not pursue *only* their narrow, individual self-interest. It is within the fundamental nature of people also to care about other people and to accept the responsibilities of humanity as the caretakers of the earth. People are perfectly capable of rising above the *economics of greed* to an *economics of enlightenment*. An *invisible hand* can still translate pursuit of self-interests into the greatest good for society, but only if each person pursues a *more enlightened*

self-interest – a self-interest that values relationships and stewardship as important dimensions of our individual well being.

Our *enlightened* self-interests include our *narrow* self-interest, which focuses on individual possessions and pleasures. However, it also includes a *broader* self-interest, which recognizes the value of relationships with other people – even those relationships that return nothing in the way of possessions or individual pleasures. Our *enlightened* self-interests also include our *higher* self-interests, which recognizes the value of stewardship, and other ethical and moral behavior, in giving meaning and purpose to our lives. All three – personal, interpersonal, and spiritual interests all contribute to our well being. Each contributes to a *more enlightened* sense of quality of life, which explicitly recognizes that each individual is but a part of the whole of society, which in turn must conform to some higher order or code of natural laws.

The Dalai Lama of Tibet puts this in slightly different terms, “If you think in a deeper way that you are going to be selfish, then be wisely selfish, not narrow-mindedly selfish. From that viewpoint, the key thing is the sense of universal responsibility, that is, the real source of strength, the real source of happiness. From that perspective, if in our generation we exploit every available thing, trees, water, mineral resources, or anything, without bothering about the next generation, about the future, that’s our guilt, isn’t it? So if we have a genuine sense of universal responsibility as the central motivation and principle, then from that direction our relations with the environment will be well balanced. Similarly with every aspect of relationships: our relations with our neighbors, our family neighbors and country neighbors, will be balanced from that direction” (p. 179).

#### Sustainable Agriculture – the New American Farm

The sustainable agriculture movement in America exemplifies the pursuit of a more enlightened self-interest. People may disagree on the specific words, but there is a growing consensus that a sustainable agriculture is an agriculture that is capable of meeting the needs of the present while leaving equal or better opportunities for the future. The concept of sustainability applies the Golden Rule across generations. *We should do for those of future generations, as we would have them do for us, if we were of their generation and they were of ours.* We must find ways to meet our needs, all of us who are here today, without diminishing the ability of those of future generations to meet their needs as well.

A sustainable agriculture must have three fundamental characteristics. It must be ecologically sound, economically viable, and socially responsible. Any system of farming that lacks any one of the three quite simply is not sustainable. This is not a matter for debate; it is just plain common sense. A sustainable agriculture must protect and maintain the productivity of its natural resource base. If the land loses its ability to produce, the farm is not sustainable. A sustainable agriculture must provide for the food and fiber needs of people, but it also must provide people with opportunities to lead successful lives. Agriculture must do its part to sustain society or society will not sustain that type of agriculture. Finally, a sustainable agriculture must make sufficient profits for

farms to remain economically solvent. If the farmer goes broke, the farm is not sustainable.

No one of the three dimensions is any more or less important to sustainability than the others. The ecological, economic, and social dimensions of sustainability are like the three dimensions of a box. A box that is lacking in height, width, or length quite simply is not a box. A farm that lacks economic viability, ecological integrity, or social responsibility quite simply is not sustainable.

Farmers motivated by sustainability share a common pursuit of an *enlightened* self-interest, in spite of their diversity in many other respects. They are not trying to maximize profit, but instead are seeking sufficient profit for a desirable quality of life. They recognize the importance of relationships, of family and community, as well as income, in determining their overall well being. They accept the responsibilities of environmental stewardship, not as constraints to their selfishness, but instead, as opportunities to lead more meaningful, successful lives. To them, practicing friendship and stewardship are not sacrifices made solely for the benefit of others, but are means by which they pursue a higher quality of life.

Sustainable farmers seek to farm in harmony with the world around them. They match their unique abilities and talents with their land, their community, and their markets. This requires a higher level of understanding of themselves, their capabilities, their values, and their purpose in life. This requires a higher level of understanding of consumer tastes and preferences and of the uniqueness of relationship markets. This requires a higher level of understanding of the land and of nature's productive processes. In general, sustainable farming requires more intensive resource management – more thinking and creativity per acre of land or dollar of investment.

Sustainable farming is thinking farming. It requires an ability to translate observation into information, information into knowledge, knowledge into understanding, and understanding into wisdom. Certainly, sustainable farming involves hard work, but farming sustainably is not the “first stage of development beyond hunting and gathering.” It is the next stage, beyond “industrialization.” Sustainable agriculture is very much in harmony with a post-industrial paradigm for future human progress – the next step forward in the ongoing process of human development. Sustainable farmers are thinking workers – or working thinkers. Contrary to Blank's suggestion that America must abandon agriculture as it moves beyond industrialization, perhaps America simply needs to embrace this new kind of agriculture that brings with it a new vision for the American economy and society.

This new paradigm for agriculture is being developed by thousands of farmers all across the American continent and all around the world. These new American farmers are developing the replacement for the old industrial model of agriculture. They are developing a new pattern for farming in the future. Farming sustainably is no simple task, but thousands of farmers are finding ways to succeed. They may carry the label of organic, low-input, alternative, biodynamic, holistic, permaculture, or no label at all, but

they are all pursuing common economic, ecological and social goals. By their actions, these farmers are defining the *new American farm*.

These farmers, not the experts or the scientists, are the ones on the new frontier – they are the explorers, the colonists, the revolutionaries, and the builders. As on any frontier, life is difficult because no one really knows how to do what these folks are trying to do – they are creating the future. They are getting little help from the government, their universities, or the agricultural establishment. They are doing it pretty much on their own. They will continue to confront hardships, frustrations, and there will be some failures along the road. But, more and more of these new farmers are finding ways to succeed.

There are no blueprints for this new way of farming. But a few fundamental principles are beginning to emerge. In general, the new farming opportunities arise directly from exploiting the weaknesses resulting from misuses of industrialization -- specialization, standardization, and centralized decision making. The new farm relies instead on the advantages of diversity, individuality, and decentralized networks of interdependent decision-makers.

New farmers focus on working with nature rather than against it. The natural resource base that ultimately must sustain productivity is inherently diverse. Industrial systems have had to *bend nature* – to augment, supplement, alter, and force it-- to create an illusion of conformity out of diversity in order to meet the demands of large-scale, industrial production. The ecological problems arising from industrialization are symptoms of natural resources being used in ways that are inherently degrading to their productivity. Thus, industrialization has created opportunities for farmers who can learn to utilize the inherently productive capacity of a diverse natural resource base, rather than wasting time and money trying to force nature to conform.

These new farmers utilize practices such as management intensive grazing, integrated crop and livestock farming, diverse crop rotations, cover crops, and inter-cropping. They manage their land and labor resources to harvest solar energy, to utilize the productivity of nature, and thus, are able to reduce their reliance on external purchased inputs. They are able to reduce costs and increase profits while protecting the natural environment and supporting their local communities.

These new farmers focus on providing value to their customers. They realize that each of us value things differently, as consumers, because we have different needs and different tastes and preferences. Industrial methods are efficient only if large numbers of us are willing to settle for the same basic goods and services – so they can be mass-produced. So, industrialization has to treat us as if we are all pretty much the same. Customers have to be persuaded, coerced, and bribed to buy the same basic things rather than the things they really want. That's why we pay more to those who package and advertise food than we pay to the farmers who produce the food. The industrial system creates tremendous untapped opportunities for farmers who can tailor their

products to conform to unique needs and preferences of individual customers, rather than try to bend the preferences of customers to conform to their products.

New farmers market in the niches. They market direct to customers through farmers markets, roadside stands, CSAs, home delivery, mail order, or by customer pick-up at the farm. They use everything from the Internet to word-of-mouth to advertise their services. They market to people who care where their food comes from and how it is produced – locally grown, organic, humanely raised, hormone and antibiotic free, etc. They are often able to avoid some or all of the processing, transportation, packaging, and marketing costs that make up 80 percent of the total cost of mass marketed foods. They increase value, reduce costs, and increase profits while protecting the environment and helping to build stronger local communities.

New farmers focus on what *they* can do best. They realize that we are all different -- as producers as well as consumers. We have widely diverse skills, abilities, and aptitudes. Industrialization has had to *bend people* -- train, bribe, and coerce -- to make them behave as coordinated parts of one big machine rather than as fundamentally different human beings. Many problems of today's society are symptoms of people being used by industrial systems in ways that are inherently degrading to our uniquely human productive capacities. Industrialization has left tremendous untapped economic opportunities for farmers and others who can use their unique capacities to be productive rather than attempt to conform to systems of production that just don't fit.

These new farmers may produce grass finished beef, pastured pork, free range or pastured poultry, heirloom varieties of fruits and vegetables, dairy or milk goats, edible flowers, decorative gourds, or dozens of other products that many label as agricultural "alternatives." They find markets for the things they want to grow and are able to grow well rather than produce for markets where they can't compete. Or they may produce common commodities by means that are uniquely suited to their talents. Their products are better, their costs are less, and their life is better because they are doing the things that they do best. New farmers focus on creating value through uniqueness – among consumers, among producers, and within nature.

In general, new farmers link people with purpose and place. By linking their unique productive capacities with unique sets of natural resources to serve the needs and wants of unique groups of customers they create unique systems for meeting human needs that cannot be industrialized. The more unique their combinations of person, purpose, and place; the more sustainable will be the value to customers and producers alike. The sameness of industrialization creates opportunities for unique farmers who can create unique linkages with both resources and customers.

#### Must everything be quick, convenient, and cheap?

At a recent conference on organic farming, a consumer in the audience made the statement that organic foods would never catch on with mainstream consumers until it becomes "quick, convenient, and cheap." That question forced me to think about American values, and eventually, to think about what has brought us to the potential

“end of agriculture in the American portfolio.” It’s our demand that our food must be quick, convenient, and cheap that has caused us to industrialize our agriculture and now encourages us to move our food production to other nations of the world. It’s also our demand that our food be quick, convenient, and cheap that has caused us to degrade our natural environment, to destroy our rural communities, and to force millions of farm families off the land. Hopefully, we are beginning to realize that food that is quick, convenient, and cheap quite simply is costing us more time, effort, and wealth than humanity can afford – once we consider the full social, ecological, and human costs of production.

Perhaps it will take more time, effort, and money in the short run for American farmers to farm sustainably. However, over the longer run, the costs of sustainable farming will decline as we restore the productivity of nature, and the costs of industrial farming will climb as we continue to degrade the productivity of nature. Within a decade or two, we will be able to produce more at a lower cost with new systems of farming that degrade neither land nor the people.

Perhaps it will take more time and more people to farm sustainably – but after all,” what are people for?” If a new way for farming can provide a desirable quality of life, why shouldn’t more Americans be farmers? Perhaps we consumers will need to take more time acquiring and preparing our food. But, what better use can we make of our time than in creative activities that enhance our health and quality of life in preparing and eating meals together?

Perhaps it will take more effort, specifically more mental effort, to support the new American system of food and farming. But most things that are not mentally stimulating, or even mentally challenging, likewise contribute very little to our overall quality of life. In general, things that are quick, convenient, and cheap are rarely worth the time, effort, or money they demand.

Perhaps it’s time to stop looking for things that are quick, convenient, or cheap and instead begin searching for things that are worth the time, effort, and money required to do them right. Perhaps it’s time to end the era of industrial agriculture in America, and to welcome the new American farm.

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Product: Carrots Facility: Grimmway Farms™ Malaga facility Location: Kern County, Calif. Output: 25 million pounds of carrots per week Credit George Steinmetz for The New York Times. Grimmway is one of the largest carrot growers in the world. In this part of the Malaga facility, whole carrots are washed, sized and cut into two-inch “baby” pieces before passing through color sorters” where 360-degree high-speed cameras and sensors spot defective carrots and air jets push them off the line for use in juices or cattle feed. Facility: Costco Wholesale Location: Salt Lake City Size: 235,000 square feet Credit Video by George Steinmetz. This Salt Lake City store is, by square footage, the largest Costco Warehouse location on the planet” combining the chain’s usual “warehouse club” Native Americans farmed domesticated crops in the Eastern Woodlands and American Southwest. Colonial farming: 1610–1775[edit]. The first settlers in Plymouth Colony planted barley and peas from England but their most important crop was Indian corn (maize) which they were shown how to cultivate by the native Squanto. Although the eastern image of farm life on the prairies emphasizes the isolation of the lonely farmer and farm life, in reality rural folk created a rich social life for themselves. They often sponsored activities that combined work, food, and entertainment such as barn raisings, corn huskings, quilting bees,[29] Grange meeting, church activities, and school functions. The American farmer has generally been quite successful at producing food. Indeed, sometimes his success has created his biggest problem: the agricultural sector has suffered periodic bouts of overproduction that have depressed prices. By the end of World War II, the farm economy once again faced the challenge of overproduction. Technological advances, such as the introduction of gasoline- and electric-powered machinery and the widespread use of pesticides and chemical fertilizers, meant production per hectare was higher than ever. American farmers approached the 21st century with some of the same problems they encountered during the 20th century. The most important of these continued to be overproduction. It was designed to protect American farmers and manufacturers from foreign competition. Yet it had the opposite effect. By reducing the flow of goods into the United States, the tariff prevented other countries from earning American currency to buy American goods. The tariff made unemployment worse in industries that could no longer export goods to Europe. Many countries retaliated by raising their own tariffs. Between 10,000 and 20,000 World War I veterans and their families arrived in Washington, D.C., from various parts of the country. This set is often saved in the same folder as The Americans: Reconstruction to the 21st Century: 19 terms. Robert\_Rieser. The Americans: Reconstruction to the 21st Century: 26 terms. Robert\_Rieser.