

**Farmers' Markets & Beyond:
Expanding the Market
for Local Foods**

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Farming for Fun and Profit

In 1979, when I was eight, my parents, Chip and Susan, sent me to sell home-grown vegetables at road-side stands in the small towns near our 60-acre farm in Loudoun County, Virginia. I sold corn and tomatoes, zucchini and pumpkins. I kept change in a Danish cookie tin and bills in an apron my mother made. When it got dark I'd pack up and wait for my parents to come get me. With sales of \$300 here and \$157 there, we struggled to earn a living. That winter my parents took part-time jobs.

The following summer, the first farmers' market in greater Washington, DC opened. We picked and loaded on Saturday morning and arrived an hour after selling had begun. In the Arlington County courthouse parking lot, swarms of people pounced on our beets and lettuce. The customers were plainly as grateful to see us as we were to see them. It was as if they had waited all their lives for the farm stands scattered all over the countryside to come to them. Soon we abandoned local road-side stands altogether, in favor of suburban and urban farmers' markets. You have to go where the people are.

Since 1980, my parents have earned a living solely from 'producer-only' farmers' markets, where all the food is local and you must grow what you sell.¹ In peak season they go to 13 markets a week, selling sixteen varieties of cucumbers, 28 different tomatoes, and a great variety of other produce, including beans, summer and winter squash, garlic, herbs, lettuce, flowers, sweet and hot peppers, melons, sour cherries, and strawberries. We grow only the best-tasting varieties and we pick and sell them at the perfect ripeness or maturity. We offer samples of everything from cucumbers to sweet peppers to melons. Our signs are ubiquitous and informative. We give away recipes and teach people about unusual vegetables. We think hard about prices, using creative approaches, such as per-basket and per-pound prices and discounts for volume or for 'seconds,' such as canning tomatoes.

Running our stand at farmers' markets, in hot competition with my mother (herself a demon marketer), I learned firsthand about small-farm economics. The main lesson was that we were the best sales staff for our own good food. When you stand before the customer and slice open a Brandywine tomato or an Ambrosia melon, it makes all the planting, weeding, mulching, and picking worthwhile. You make the sale based on quality, knowledge, and enthusiasm. The producer as retailer has the best of both worlds. He knows the product

¹ Distinctions drawn in the farmers' market business are Jesuitical, the meaning of 'farmers' market' itself the most interesting topic going. *Producer-only* is the favored term to distinguish farmers' markets from other food and retail markets where middlemen are permitted. *Producers* includes farmers of produce, plants, meat, dairy, poultry, eggs, fish, and game; beekeepers and wine makers; jam and jelly-makers, sometimes called secondary producers because they don't grow the ingredients; and bakers. Many markets have more liberal rules. They might include crafts such as soap. Most farmers' markets also define a region within which all or most of the items are produced. This varies, but 100 to 125 miles is typical. Some covered markets, such as Rochester and Syracuse, mix farmers who sell their own produce with other vendors. These are known as public markets.

intimately and knows the customer, too. The reward, of course, is the sale—at retail.

There were lessons on the farm, too, about productivity and efficiency. They did not come dressed in the language of small business courses or economics text books (I didn't learn terms like gross or net profit until years later) but the basic principles of business were clear enough from the many decisions in a day's work. Working alongside my parents, I learned to think about cost, price, and value. How long does it take one person to pick 30 lbs of tomatoes, what's the price of labor, where is the market, how long will they keep, how much can you sell them for?

Farmers' markets saved our farm. More precisely, farmers' markets made it possible to keep 60 acres of prime farmland only one hour from Washington, DC—land under significant pressure from development—in open, productive farmland without recourse to off-farm income. The lesson we learned from farmers' markets was basic. The market doesn't come to you. You have to take your produce to the market. There simply weren't enough people near our farm to buy our vegetables. We used to spend all day at the road-side stands, waiting for mid-morning customers to dribble in, then the lunch trade, perhaps a rush-hour flurry. Farmers' markets, by contrast, concentrate the customers in space and time. In four hours on a Saturday, my parents can do \$4,000 in sales. As good as our Cherokee Purple tomatoes and Middle Eastern zucchini are, our stand alone would not attract 3,500 customers in four hours during peak season. Thirty farmers at the Dupont Circle Farmers' Market do.² This is true even when multiple farmers are selling the same foods, such as produce, though diversity of foods is another attraction for customers. Farmers' markets are, essentially, a cooperative. Farmers agree to meet each week to sell only what they grow. Each farmer relies on the presence of the others.

Farmers' markets saved our farm, but they meant much more than that to me. Farming can be isolating, and sitting at road-side stands is lonely. Once we started selling at busy, sociable markets in the suburbs and the city, where we met customers and other farmers, we not only made a modest profit—we began to have more fun.

Of 2.2 million American farms, our small farm is unusual. It makes more money than the vast majority of farms. Gross sales last year—\$355,000—were greater than sales at 93% of US farms. Our farm is also profitable. My parents' net farm income, after all farm expenses, was \$108,000 in 2003. They receive no agricultural subsidies and have no off-farm income. Most American farms lose money. When you remove the income from farm subsidies, net farm income is

² The Dupont Circle farmers' market in Washington, DC attracted 79,000 customers in 2003. Peak attendance is 3,000 to 3,500. Average attendance (pulled down dramatically by lower attendance in the winter) was more than 1,500 people. The Union Square Greenmarket in New York City has about 60 producers and attracts 65,000 people on a peak day. The market is at a major subway station, so some of those people are just passing through.

generally negative. Farmers who make a living farming, without subsidies or off-farm income, are the exception—about 27% of all farms. (Moreover, the USDA definition of ‘farm’ is liberal. Any operation with sales of \$1,000 per year from agricultural produce counts. A home gardener could qualify.³) Finally, my parents’ farm is unique in another way: it is efficient. In 2003, the Plancks took in \$10,000 gross per acre on 35 cultivated acres. In the sales bracket they share with only 7% of American farmers—sales over \$250,000—the other farmers’ gross sales were \$147 to \$293 per acre.

My parents won’t get rich farming. In a good year, they work harder than anyone I know for a pre-tax income of \$54,000 each. They only get what’s left over after paying for everything else, including supplies and labor. Like many self-employed people, they also pay for their own social security, health care, and retirement from that modest income. Farm income varies.⁴ Yet with hard work, thrift, and reliable markets, they paid off the mortgage on a 60-acre farm and put two kids through college—all with tomato and zucchini money. It can be done. Yes, Virginia, there is a future for small farms.

In this paper, I will argue that a financially viable agriculture of small and medium-sized, independent farms depends on two things. We must first expand, develop, and reform farmers’ markets themselves. Since the mid-1970s, farmers’ markets have grown organically, without strategic or professional management, which is sorely needed. Two, we must look beyond farmers’ markets to develop the market for local foods. A thriving market for local foods will mean more farms, more rural jobs, a cleaner environment, and more nutritious food.

How Farmers’ Markets Work and Why

Some years after I left home, I was working in London, England as journalist for *TIME* magazine and, later, as a speechwriter for the American ambassador. I found myself homesick, not for Virginia, but for local foods. In the recent past, there had been many street markets in London, with farmers selling food from

³ Agriculture is also consolidated. Small and large farms are growing in number, but medium-sized farms are disappearing. The small farms produce a negligible amount of food. About 150,000 of America’s 2.2 million farms produce most of it. Rural development policy must address the loss of medium-sized farms. Efficiency is usually cited as an (inevitable) benefit of consolidation. However, many large operations are not efficient. Without direct and indirect subsidies, they lose money. The macroeconomic and political case for a diverse farm industry with multiple small and medium-sized businesses, like the famous *Mittelstand* manufacturing economy in Germany, is stability. Any sector is more vulnerable to catastrophic disruption when highly concentrated. Consider, for example, rampant *Listeria* in the dairy industry (where distribution is consolidated) or an outbreak of *E. coli* in the four meatpacking firms that slaughter 84% of US beef.

⁴ Farming is always subject to the weather, but we have learned to control as many variables as possible. Vegetables love sun and rain. Happily, Virginia is reliably hot and sunny in mid-summer. Temperature can be controlled within a small range with low-tech methods. We protect early and late crops from frost with light-weight, permeable covers. Rain is fickle, however, and we used to suffer in drought years. In 1985, we installed buried irrigation pipes leading from the pond to fourteen hydrants. Irrigation was faster and hence much cheaper. Now our control of watering is almost perfect. Diversity is also an important hedge against weather-related risk. In a late, wet spring, we make money on cool-weather, water-loving crops like lettuce. In a hot, dry summer, we make money on heat-loving crops like eggplant, okra, and tomatoes—and we water as much as they need it. You could almost say that we don’t have bad years anymore.

farms in nearby counties such as Kent, the ‘Garden of England.’ By the mid-1990s, however, London markets had little but Dutch peppers and Israeli tomatoes, alongside t-shirts and batteries.

What I craved was local food in season: ripe strawberries, fresh asparagus, traditional apple varieties. I rented a site in my neighborhood and set about finding farmers. Fourteen months and many hours of leafleting later, I opened London’s first farmers’ market. When the Minister of Agriculture rang the opening bell at the Islington Farmers’ Market on June 6, 1999, farmers were selling home-grown fresh fruit and vegetables, eggs, goat cheese, traditional chicken breeds, and pork. Three months later I opened two more farmers’ markets, and six months later I quit my job writing speeches for the ambassador to start more. Today London Farmers’ Markets (LFM), a private company, runs ten weekly farmers’ markets with more than a hundred farmers selling the finest traditional apple varieties, Asian greens, and other produce; juice, wine, brandy, and cider; home-made preserves from local ingredients; milk, butter, and raw milk cheese; grass-fed beef, lamb, pork, poultry and eggs; wild and farmed fish and game; wild foods such as ramps and Cob nuts; hand-made savory foods such as sausage, game and fish pâté, and meat pies—every food you can garner from the English countryside and coast, all of it produced within 100 miles of London. Farmers, who pay LFM to attend, make gross sales of \$6.8 million a year at the markets. Farmers’ markets grew rapidly in Britain, from zero in 1997 to about 300 today. The combined effects of committed farmers’ market organizers, low farm income, and a spate of food scares (from biotechnology to BSE, foot and mouth disease to pesticides) revived demand for high quality, local British foods.

American farmers’ markets are thriving, too. From 1994 to 2002, the number of farmers markets grew by 79%, to 3,100. This dynamic alternative to the conventional food supply is a direct rebuke to industrial agriculture and its indifference to wholesome, delicious food. For customers, the chief virtue of a farmers’ market is the superior flavor of the food. Commercial tomatoes and peaches are tasteless because they are bred for shipping not flavor, picked green, and ripened artificially. The same is true of delicate fruit such as raspberries, which are now grown year-round in hoop-houses to supply supermarkets. Inevitably, this industrial production diminishes flavor. Tomatoes, peaches, and raspberries at the farmers’ market are grown for flavor, picked ripe, and they don’t travel far.⁵ They taste better.

Variety and freshness are also virtues of farmers’ markets. There is more variety of each item, especially fruit and vegetables, than at supermarkets. That is often because certain varieties, such as heirloom tomatoes, don’t lend themselves to commercial production methods such as mechanical picking, shipping, and storage. My parents, for example, grow 28 varieties of tomatoes, including old

⁵ According to the Leopold Center for Sustainable Agriculture, locally grown produce travels an average 56 miles from farm to point of sale, while the same types of produce from conventional sources in the US travels 1,494 miles—nearly 27 times farther—to reach the same points of sale.

heirlooms and newer hybrids.⁶ In New York, Hudson Valley orchardists produce a vast range of traditional and modern fruit. These unusual or older varieties often have superior flavor to the modern hybrids favored by large-scale farmers, shippers, and retailers. Also, the food at farmers' markets is fresher than at the supermarket—or should be. That's because farmers bring the food directly to the market from the farm, typically from less than 100 miles away.

The food at farmers' markets is often healthier. Direct contact between farmers and consumers is partly responsible. No shopper presses the farmer to use *more* pesticides on his carrots. Farmers' markets have long embraced farmers selling produce raised with ecological methods, even though most farmers are not certified organic. Recently, farmers' markets have included 'grass-farmers' selling meat, dairy, poultry, and eggs raised on a natural diet of pasture. Nutritionally, these foods are demonstrably superior to the industrial versions. Eggs from hens raised on grass contain more omega-3 fatty acids than those from chickens without access to pasture, for example.⁷ Factory farms feed dairy and beef cattle on grain, not their natural diet of grass. Grass-fed beef and dairy contain less total fat, more omega-3 fatty acids, and less saturated fat than the grain-fed versions. Grass-fed beef and dairy are rare sources of conjugated linoleic acid, a potent anti-tumor agent. In cattle, a grain diet not only increases the number of *E. coli*, but also raises the chance of infection in humans.⁸

Ecological farming methods such as grass-farming also have environmental benefits. Factory farms create manure lagoons that pollute local communities. Animal manure becomes a waste product that must be removed like any toxic byproduct of manufacturing. Without animal manure to build soil fertility, farmers must buy commercial fertilizer. (The Kentucky farmer and writer Wendell Berry has described this as neatly dividing one solution into two problems.) Intensive vegetable and fruit production—and grain farming, to feed cattle—relies on nitrogen fertilizer and pesticides, which poison ground water. The vast 'dead zone' in the Gulf of Mexico is the result of intensive farming in the Mississippi River Valley. The Army Corps of Engineers estimates that 70% of the Mississippi's nitrogen comes from six states in the heart of America's corn belt.

Are these hidden costs of industrial food? Not really. Pungent manure lagoons and toxic *E. coli*—and their consequences for drinking water and health—are all

⁶ A hybrid is bred from two parents resulting in a cross with traits from each parent. An heirloom is a traditional variety that has not been bred. Virtues of heirloom varieties and traditional animal breeds include flavor, texture, and disease resistance. The quantity and quality of fats in traditional animal breeds varies, too. These varieties and breeds are neglected by commercial production because of traits such as small size, lack of cosmetic perfection, or slower growth, in the case of chickens, pigs, and other livestock.

⁷ The typical diet is deficient in omega-3 fatty acids, which leads to obesity, diabetes, and heart disease.

⁸ *E. coli* is found in the healthy hind gut of cattle and in the human colon. If found in even small amounts in our food, it may make us sick. However, the highly acidic environment of the human stomach and small intestine will usually destroy it. The exclusively grain diet of feedlot cattle lowers the normal pH. This more acid environment has permitted the growth of an acid-tolerant strain of *E. coli* that is able to survive human stomach acid and is extremely dangerous.

too visible and tangible. These costs are, however, unaccounted for in the price of food.

Over the years I've asked many people why they shop at farmers' markets. In formal surveys we have suggested (and heard) many reasons: to meet the farmer, for the vibrant atmosphere, because it's good for kids, to buy healthy or ecological food. Yet the results of these British and American surveys are quite predictable and unambiguous. The top two reasons customers cite are always quality (or some subset of quality, such as freshness, flavor, or even healthfulness) and price. Together, quality and price affect *perception of value*. I am aware that this term is an unromantic way of describing the allure of farmers' markets. Many market managers and farmers prefer to believe that aroma, atmosphere, and, of course, the presence of authentic farmers are the draw.⁹ But shoppers are quite clear about why they come. Those features—though nice—are secondary. If the food isn't good, and the price isn't right, they'll shop elsewhere.

As a variable in the perception of value, price is not an absolute factor, but a relative one. Consumer's sense of value includes cheap peaches in peak season, and pricier treats such as specialty salad leaves in mid-winter, or rare wild blueberry preserves. I often remind farmers fretting over prices (usually the low prices of another farmer) that it is not a question of high or low prices, but the right price. No customer will be tempted, or should be, by heirloom tomatoes for \$4/lb if they aren't demonstrably better than hybrid tomatoes for \$2/lb at the next table. Indeed, I am dismayed when farmers or shoppers seem to think the word 'heirloom' will paper over flaws such as bruises or mealy texture. Moreover, many modern hybrids have excellent flavor and other virtues. Yet many customers are willing to spend \$18 on a slow-growing, grass-fed chicken raised without antibiotics once they understand—and taste—how superior a pastured chicken is to a factory-farmed bird.

It's worth noting what virtues of a farmers' market *don't* trump the combination of quality and price in the customer's mind. Secondary reasons to shop at farmers' markets include meeting the farmer; organic foods *per se*, especially certified organic foods; reducing 'food miles', or the distance food travels from farm to fork; preserving local farmland; raising farm income; reducing the environmental impact of food (in use of chemicals or packaging, for example); urban revival; bridging the gap between urban and rural communities; creating small business opportunities for immigrants; and bringing business to shops near the market. All these are ancillary benefits of farmers' markets, to be sure. But these things are not chief draws for customers. They are not shopping for the cause; they are shopping for good food. If the quality of the food declined, or the same flavor, variety, and freshness could be found elsewhere for the same price, farmers' markets would lose sales. This has happened already, where farmers' markets, once the only game in town, now face competition from better farmers'

⁹ Organized entertainment, such as book-signings, cooking demonstrations, and apple-bobbing, are popular with market organizers and customers enjoy them. But these events are a promotional tool, not a fundamental reason to come to market to buy local foods. Many market managers confuse the two.

markets and shops. At the Union Square Greenmarket in New York City, farmers complain bitterly of shrinking sales. They recall fondly how much easier it was to make money in the late 1970s and early 1980s, before food retailing began to mimic some of the virtues of farmers' markets. In 2004, a large Whole Foods will open on the doorstep of Union Square, Greenmarket's flagship market. Time will tell what customers do, and don't, prefer about the two ways to shop. It bears repeating: Customers are not loyal to the idea of farmers' markets or any social benefits. *They are addicted to the good food.*

Farmers' Markets Face New Competition

Despite the rapid growth of farmers' markets and their evident popularity in the US, the food market has moved on in the last thirty years, and farmers' markets as a whole have failed to keep pace. Many individual farmers' markets are stagnant and need reform. Competition is tougher since many farmers' markets opened in the 1970s and 1980s. In those days, supermarkets paid scant attention to demand for organic fruit and vegetables. Other innovations in food retail, such as zucchini blossoms, baby vegetables, salad green mixes, juice bars, and alfalfa sprouts, were once hard to find except in farmers' markets and health food stores. Now they are mainstream.

One rival for farmers' market shoppers is the chain Whole Foods, which opened its first health food store in 1980, the year the first farmers' market in Washington, DC opened. With \$3 billion in sales, the supermarket with 'whole foods' values already has sales three times bigger than all US farmers' markets combined. Whole Foods meets demand for ecological foods with all the intelligence and seductive marketing tricks professional retailers can muster. The stores appeal to the consumer's desire to learn by creating marketing that resembles education. I don't use 'resemble' to be snide: it is indeed often informative. We try to do the same with our own signs at farmers' markets. But the marketing doesn't *feel* like salesmanship. Shopping at Whole Foods makes you feel a little more informed about food and farming. Farmers' markets used to have a virtual corner on *that* market.

But Whole Foods has done more than create an appealing ambiance in its 160 stores. The company represents ecological values which overlap with the virtues of farmers' markets. Many foods are certified organic. The chain doesn't sell meat or poultry produced with hormones or antibiotics. They stopped carrying foods with unhealthy trans fatty acids before the government acknowledged that margarine and other foods made with hydrogenated vegetable oils caused heart disease. These are laudable policies. They are also more progressive than the rules at most farmers' markets. Of course, many farmers at markets use humane and ecological methods, but the vast majority of markets have no rules about standards of production. They don't require bakers to use butter or prohibit the use of hormones or routine antibiotics as growth promoters in meat.¹⁰ Why not?

¹⁰ At London Farmers' Markets, we do not allow the use of hormones in dairy products or the use of routine antibiotics or hormones in meat. Grazing animals and poultry must have access to pasture.

Sourcing is another important policy. Does Whole Foods support small, ecological farms, or does it mostly represent the minimum standards of large-scale organic agriculture? Mostly the latter. In supermarkets including Whole Foods, it is almost impossible to find organic milk from cows raised on a natural diet of grass. Most certified organic milk comes from cows fed grain. Many small farmers have higher standards than the National Organic Program requires. Supermarkets seldom stock those foods. Does Whole Foods buy local? To a modest degree—and probably more than other supermarkets—Whole Foods buys produce locally and regionally. Hence the heart-warming farmer biographies in the produce section. If you read those farmers biographies closely, however, the charming stories of hard-working farmers don't always correspond to the food you're looking at. But the stories create the impression of small-farm values, the ambiance of respect for the grower.

Farmer-retailer relationships are famously cut-throat.¹¹ Many farmers complain that supplying large buyers (including Whole Foods, which is probably among the most honorable buyers in its relationships with producers) is like a slow squeeze. In the beginning, the terms are reasonably favorable. Gradually, the contracts begin to favor the buyer, not the grower. Often the result is the farmer's total dependence on an ever-choosier buyer, who dictates not only price but other critical terms. For example, a supermarket buyer may advise a broccoli farmer whose season is six months that to continue to supply the supermarket the farmer must find a source of broccoli from other farms in his off-season—at a given price. To keep the customer (sometimes the farmer's only customer), the farmer is forced to become a produce broker. Many poultry farmers lack any meaningful independence from the eight poultry processors who buy two-thirds of American birds. The processors own the birds, from egg to slaughter, and farmers, or, as the industry prefers to call them, 'independent contractors,' take instructions on feed and antibiotics. The farmers also take the price they are offered. If poultry farmers are unhappy with how they raise the birds or the price they get, they have little choice.

A startling illustration of the dynamic of farmer exploitation comes from a story Richard Manning tells in *Against the Grain*. 'A farm scholar once asked an agribusiness executive when his corporation would simply take over the farms. The exec said it would be dumb for the corporation to do so, in that it is not free to exploit its employees to the degree that farmers are willing to exploit themselves.' In most of American agriculture, growing food is unprofitable. Agribusiness giant Archer Daniels Midland does not grow food, for example. ADM buys, processes, distributes, and sells food. That's where the money is—assuming you can buy the raw ingredients from farmers ever more cheaply. Large supermarkets, food processors, and other buyers in the conventional food

¹¹ Milk is a 'known value item' to customers, which means they watch the price. It is one of the most haggled-over commodities in the grocery business. On his deathbed, the retailer, an old-time butter-and-egg man who had bargained with his milk supplier for many years, asked the supplier, 'What *was* your best price?'

chain may not, therefore, be reliable regional outlets for independent farmers selling ecologically sound and wholesome foods.

Competition from other retailers such as Whole Foods affects farmers at farmers' markets directly, but farmers' market management has to keep pace, too. Management is often mired in a non-profit, 'program' mentality, unable to give farmers and consumers an efficient, appealing service. Individual farmers may use the best modern marketing techniques, but too often market management fails to make the case for local foods.

Most farmers' markets are stuck in the past, when the summer bounty of fresh, local peaches and tomatoes was the main attraction and the markets were novel. Today, customers would like to buy local foods all year round, whatever the weather. In the winter, markets should offer processed foods such as local tomato sauce, peach jam, dried mushrooms, and pickled okra. Farmers' markets have also failed (or been slow) to meet demand for meat, dairy, eggs, and other animal foods. Customers want to buy all the foods they need for dinner at the farmers' market—not only fresh fruit, vegetables, herbs, and flowers, but also meat, game, poultry, eggs, fish, wine, beer, corn meal, flour, milk, cream, butter, yogurt, and cheese. Many farmers' market organizers have not considered how to meet the demand for these local foods.¹² This is short-sighted. I suspect that an unspoken—even unconscious—vegetarian bias is partly responsible.

Thirty years ago, when farmers' markets were novel, vegetarians claimed the moral and environmental high ground with arguments such as those in Frances Moore Lappé's ground-breaking 1971 book *Diet for a Small Planet*, which argued that you could feed more people on the grain beef cattle ate than on the beef they produced.¹³ In the 1970s, health food stores and organic farming were virtually synonymous with the vegetarian diet. As recently as 2001, we invited a beef farmer to a farmers' market we started in Takoma Park, Maryland in 1983. Local vegetarians protested that the farmers' market was for vegetarians. As the writer and dairy farmer Joann Grohman puts it, 'So vigorously has the vegetarian movement pursued the twin themes of whole food and rejection of animal products that in the minds of most people, to be committed to whole foods or even to organic gardening without being a vegetarian takes some explaining.'

But any sound—or, as environmentalists might say, holistic—approach to local foods must include animal husbandry. Animal foods are a staple of the human diet. There are no traditional vegan societies because a strict vegan diet lacks essential nutrients. Even vegetarian societies prize butter and eggs for the essential fat-soluble vitamins A and D and for vitamin B12, found only in animal

¹² Two examples of progressive farmers' market management are in New Orleans and Dupont Circle in Washington, DC. Both are run by non-profits, the former with an environmental approach on economic development, the latter with a farmland-preservation mission. See *Notes*.

¹³ Lappé was right that raising beef cattle on grain, not grass, is a waste of resources. She was wrong about the solution. The answer was not a vegetarian diet, but to return to ecologically sound beef farming.

foods. The plant-based sources of the essential omega-3 fatty acids are rare.¹⁴ Fish and grass-fed meat, dairy, and eggs are far better sources. Animal foods are not only vital in the diet; they are also too important to farming to ignore. According to the USDA, animal products account for a small majority (51%) of American agriculture. Each year, American farmers sell \$100 billion in animal foods, and consumers spend several times that amount on animal products at retail. Each year the average American eats 186 pounds of meat including beef, poultry, lamb, pork, veal, and poultry, and almost 600 pounds of milk, cheese, and ice cream. Leaving animal foods out of the market for local foods is simply inadequate.

Fixing Farmers' Markets

Reform of farmers' market management itself—a function largely invisible to consumers—would make a big difference. Customers need not see the inner workings of a farmers' market. They are best done behind the scenes, so the customer can focus on the food. However, it is unfortunate that farmers, market sponsors, and local governments are often not more mindful of what is required to run a farmers' market well. Most casual observers have the impression that farmers simply gather spontaneously to sell. But in fact a lot of work goes into good farmers' markets, including site selection, producer recruitment, applications, rules, farm visits, and publicity. The best farmers' markets are managed as closely as any business—and also with great love, the managerial factor most customers seem to appreciate instinctively.

Unfortunately, however, most American farmers' markets are run by amateurs. I mean that literally. They don't charge farmers a fee that makes market management financially viable. They rely instead on public subsidies, volunteer labor, and fundraising. Whether farmers' markets are run by for-profit, non-profit, or government agents, the operation of the market itself should be financially viable. The sole subsidy should be the use of private and public space for nominal or no rent. The many ancillary benefits of farmers' markets, including urban revitalization and the cultural benefits of bringing rural and urban people together, make that small contribution of public squares and quiet streets a worthy public investment.

Best practice for farmers' markets is independent, professional, regional management. By *professional*, I mean paid; by *independent*, that management decisions are made independently of farmers, consumers, landlords, and local businesses. *Regional* means that one market manager operates markets on several sites.

When I started London's first farmers' markets in 1999, my strategy to make market management independent, professional, and regional was deliberate. I understood the workings of farmers' markets from three angles. As farmers, we

¹⁴ The plant sources are flax seed, walnuts, and purslane, a succulent weed. Humans evolved (and our brains rapidly) by getting essential omega-3 fatty acids from grass-fed eggs and meat and, especially, fish.

relied on farmers' markets for all our income. We had also started and organized farmers' markets on public streets and city parking lots. As a cook, I had shopped at many farmers' markets. I knew what worked and what didn't for all three parties: farmers, market managers, and customers.

Consider first the farmer's perspective. Most of the farmers' markets we relied on were haphazard efforts lacking professional management. In the 1990s, my parents attended only one professionally managed farmers' market, in the Washington neighborhood Dupont Circle. We paid 6% of sales to a non-profit market manager, FreshFarm Markets. If we take \$4,000 on Sunday in peak season, the fee is substantial, about \$240. For this fee, management provides intelligent producer recruitment, farm inspections, publicity, education, and other services. Other farmers' markets, by contrast, were orphaned by benign neglect or outright indifference by city or civic sponsors. These un- or under-managed markets charged very little—we paid a mere \$5 to \$15 each week—and sales were lower. You get what you pay for. When I started the London markets, I knew that my parents would prefer to pay 6% of sales at *every* farmers' market they attended if these markets were professionally managed in a network by groups like FreshFarm. Our farm is simply too dependent on markets to let this sales venue languish for inattention.¹⁵

Nor did we wish to manage farmers' markets ourselves. Farmers' markets managed by farmers have two downsides: first, self-management requires farmers to spend valuable time on committees and paperwork when they would rather be farming. The second objection is more serious. Over time, markets run by farmers, or markets where management is independent from farmers in name only, tend to favor farmers, often in subtle ways, at the expense of customers. It is all but inevitable that a producer bias creeps into decisions. Competition tends to be stifled. Eventually, the quality and diversity of foods offered to consumers suffers.

Now consider farmers' markets from the perspective of market management. Individual markets are money-losers for organizers. That is why most farmers' markets rely on volunteers and grants. Even a reasonable fee does not cover the expenses of running one market. One has to spread the overhead costs across several sites.

At London Farmers' Markets, the costs of running ten weekly markets come entirely from fees paid by farmers, who pay 6-8% of sales per market. Sales are reported on the honor system. We provide electricity for chilled foods at almost every market. London Farmers' Markets employs two full-time staff and a part-time manager at every market. The company does not rely on volunteers. We

¹⁵ Farmers' markets in our area grew haphazardly. Our market strategy was mostly trial and error. We went to every market we could, and kept going to the good ones. In August 1992, we attended 21 markets in one week, with average sales of \$422. One week in August 2002, we went to 13 markets, with average sales of \$1,800. A professionally managed network of good markets would have been very valuable in 1992.

found that we needed to run ten markets to break even. Consider the following benefits of regional farmers' market management *à la* London Farmers' Markets.

Benefits of Regional Farmers' Market Management

- *Overhead* is easily shared in a regional farmers' market network. The main office keeps one data base of current and potential producers, which simplifies communication with and recruitment of producers. The office is responsible for leases and other arrangements with landlords and spreads all office expenses (phones, printers, etc) across every market.
- *Policy* is uniform. Management has one application and one set of rules.
- *Publicity* The markets have one brand and logo; all media and community contacts for each market are kept in one database. One newsletter for consumers covers all the markets.
- *Management is coordinated* The office oversees the development of every market, according to its needs, consumer demand, and producer availability.
- *Fundraising* If a network of farmers' markets also relied on individual, corporate, or foundation donations for its operating expenses (LFM does not), these fundraising efforts could be shared across all the markets.
- *Farm Visits* A farm attending more than one market need only be visited once.
- *Expansion* Managers of a regional network are motivated to find new market sites and new farmers to raise profile and income for management. Thus more communities and farmers are served by new farmers' markets. Managers of single-site farmers' markets are less inclined to expand to new sites or recruit new farmers.
- *Sales-based fees* are an incentive for the market manager to raise farm income at the markets. Most markets charge a fee based on space. The only incentive for market management is to add more producers. Farmers, however, tend to fight new competition. But if the market manager can raise sales for all producers, such turf battles don't matter.

This business-minded approach—or call it efficiency—need not be the exclusive territory of commerce. It applies equally well to farmers' markets run by for-profit or non-profit organizations or city, state, or federal government agencies.¹⁶ Yet it has seldom been followed, perhaps because farmers' market organizers have often seen local foods as a 'movement,' not a market. There are, of course, other aspects to good farmers' market management, but they do not concern us here—partly because they are the stuff of nerdy conversations among farmers' market managers, but chiefly because professional, regional market management itself tends to bring about those good habits.

¹⁶ The non-profit I started, Local Foods, runs a farmers' market in Washington, DC on these same principles. It is only the second market with sales-based fees my parents attend. Dupont Circle charges 6% of sales. Like LFM, Local Foods charges 6-8% of sales. As at LFM, there is a cap on fees above a certain level of sales.

Independent, professional, regional management of multiple markets is the best way to begin to ensure stable management, good publicity, sound funding, higher sales, and, ultimately, satisfied farmers, consumers, and communities. With this change alone, the number of farmers' markets could increase by 50% and sales could double. The potential for new farmers' markets considerable. Consider a metropolitan area such as Washington, DC, with a population of 3 million. In the city of Washington itself, there are only five farmers' markets; it could support ten. Maryland supports nearly sixty farmers' markets, and most are neglected or poorly managed. Virginia is similar. The population in suburban Washington has grown much faster than new farmers' markets. Greater Washington could support twice as many markets, especially if they were properly managed. The same is true in many American cities.¹⁷

Beyond Farmers' Markets

Any business or industry would be pleased with doubling sales. Yet, even if the number of farmers' markets were to increase by 50% to 4,650 markets, and sales were to double from \$1 billion to \$2 billion, this would still represent only a tiny fraction (0.2%) of the total amount Americans spend on food—\$900 billion. To expand the market for local foods, it is imperative to move beyond farmers' markets.

Here, I would like to note why I don't use the favored term in this field, 'community food system' or, sometimes, 'community food security.' People speak of creating a community food system or improving community food security. I admire the values implied by these terms. *Community* implies share interest in a locale or region; *security*, a commitment to eradicate 'food poverty' (when nutrition is compromised by lack of access to wholesome foods for any reason, including income); *system*, an arrangement of interlocking parts, each dependent on the other.

However useful these terms are—and many people I respect use them—I favor the simpler and more capitalist description 'the market for local foods.' Why? Because ultimately our success in expanding the production, sale, and consumption of local, ecological, and wholesome foods depends on commerce. We are referring to producers who *sell* foods and consumers (individual or institutional) who *buy* them. The goal is to increase the number of producers and consumers, including the poor, who buy and sell local food. If we focus on the *sale* as the basic transaction, we keep this necessity firmly in mind: the market for local foods must be financially viable or it will not survive.

Unfortunately, we are up against a conventional food system that relies substantially on hidden subsidies. Large-scale cereal and soybean production and factory farming of beef, pork, chicken, milk, and eggs are held afloat—and

¹⁷ With some experience it is easy to choose successful market sites. Passing foot traffic and visibility are the most important criteria. Markets can be fairly close together. Most customers travel less than five miles to a farmers' market.

food is kept artificially cheap—in many ways. One is public subsidies for cereal crops and soybeans, which makes feeding grain and soy protein to grazing animals, who would naturally eat grass, artificially cheap. Eighty percent of the fertilizer- and pesticide-dependent American grain and soybean crop is fed to livestock, which could be eating naturally abundant grass instead. Agricultural research has also favored industrial agriculture. The cooperative extension agents at land grant universities have until recently focused almost exclusively on industrial farming methods, and seldom examined ecological and small-scale methods. Organic farming methods and direct marketing were largely inventions of farmers and consumers themselves, not the result of a government study. Subsidies for highways and airlines lower the price of global foods further. Cheap oil itself—used in petroleum-based fertilizers—is won with billions in the direct and indirect costs of energy policy—and even war.

From fertilizer to transportation, this industrial agriculture gobbles up energy. According to Manning, in 1940, the average American farm used one calorie in fossil fuels to raise food worth 2.3 calories. By 1974 (the most recent figures available) the ratio was one to one. That is before one counts the cost of processing the food or getting it to consumers. These stark numbers show that this kind of industrial farming is a net loss. Consider a more tangible example, the one on your plate. A farmer uses 35 calories in fossil fuels to produce just one calorie of feed-lot beef; 68 calories to produce one calorie of pork. Subsidies for all this come to about \$15 billion per year. Two-thirds of that goes to corn and wheat alone. (Nutritionally, this farm policy is a disaster. Most corn that isn't fed to beef becomes corn oil and high fructose corn syrup. Both are unhealthy.¹⁸)

Businesses in the conventional food chain do not live and die by the free market, despite the yeoman-farmer rhetoric of farmers and politicians who support this monstrously wasteful and inefficient system.

Yet we—we who propose an alternative—must. Does anyone trying to build a 'community food system' with different values (ecologically sound production of healthy foods) believe that our side has the political or financial clout to win such colossal benefits from the public purse? Our only hope is to make the alternative market for local foods financially viable for producers, buyers, and, if necessary, the middleman in between. (The middleman? Surely anathema! About the maligned middleman we shall hear more later.) I hasten to add, however, that certain sound public investments, worth fighting for, would support and expand the market for local foods. We should lobby, for example, for school meals to be made with nutritious local foods. Federal and academic research should focus on sustainable methods of production for health-related and environmental benefits.

¹⁸ Corn oil is a polyunsaturated vegetable oil rich in omega-6 fatty acids. An excess of omega-6 fatty acids in combination with a deficiency of omega-3 fatty acids leads to obesity, diabetes, and heart disease. Corn oil is also highly unstable. Most corn oil is refined at high temperatures, which makes it rancid and carcinogenic, and increases the body's need for the antioxidant vitamin E. Corn oil was rare in the diet in 1900. Its industrial production and quantity in the diet is unprecedented. High fructose corn syrup is very high in calories and provides no nutrients. It may contribute to diabetes more than other refined sugar.

Cities should invest in public markets to increase sales of regional foods from farmers and other producers, such as cheese makers.

A word about ‘food poverty.’ The term is British. Americans tend to give it a positive gloss, ‘food security,’ but I appreciate the reminder that we are talking about a lack, an unmet need. Food poverty takes many forms and has many causes. Simple food poverty is lack of means to buy adequate wholesome food. Food poverty is also caused by lack of physical access to good food. Supermarkets, like banks, follow the money. That leaves food deserts in poor neighborhoods. Food poverty can be simple malnutrition, regardless of access to food or income. In the US today, food poverty may manifest itself as malnutrition alongside over-consumption of poor quality foods. A critical example of this is the over-consumption of refined sugar, refined grains, and refined vegetable oils such as corn, safflower, and sunflower oil. Sugar is high-calorie but provides no nutrients, and it depletes the body of B vitamins. Polyunsaturated vegetable oils from grains and seeds provide an excess of omega-6 fatty acids. Combined with a deficiency of omega-3 fatty acids, too many omega-6 fatty acids lead to obesity, diabetes, and heart disease. Obesity due to over-consumption itself is a form of food poverty.¹⁹

The chronic, degenerative diseases of the last and the 21st century are obesity, diabetes, and heart disease. Good nutrition helps prevent them. Often people ask how I expect the poor to be able to buy grass-fed beef, milk, chicken, and other healthy, sustainable foods. To be blunt, I don’t. Not yet—not until we greatly expand the scale of production of wholesome foods, especially nutrient-dense foods high on the food chain, such as meat and dairy. (A benefit of increasing production will be lower prices.) However, if I were by some miracle charged with improving public health via nutrition, getting a pastured chicken in every pot would be low on my list. It would be much less expensive and more efficient to start with a comprehensive pre-natal and childhood nutrition program to encourage breast feeding, and radically reduce consumption of white flour, sugar, trans fatty acids, and refined polyunsaturated vegetable oils. This fantasy policy would also encourage consumption of omega-3 fatty acids, folic acid, and the antioxidant vitamins B6, B12, C, and E to prevent heart disease.

Healthy meals would focus on simple, whole foods, rich in vitamins and other nutrients: protein (yes, even factory chicken and beef), liver, canned tuna and salmon, eggs, whole milk, butter, whole grains, and plenty of fresh produce. If you followed nutritional advice in the 1950s, you might recognize this prescription, made famous in best-selling paperbacks by nutritionist Adelle Davis. This is the food I grew up on. We didn’t spend a lot of money on food

¹⁹ According to New York University Professor Marion Nestle, the imperative of the food business is ‘eat more,’ which contradicts one goal of public health, to eat less of certain foods. On this conflict food policy founders. In 1970, the American food system served up 3,300 calories daily for every person. In the 1990s, the daily supply rose to 3,800 calories—an extra 500 calories per day. *What we eat matters, too.* A profound change in the diet in the last 100 years is the excess of polyunsaturated vegetable oils and sugar, especially high fructose corn syrup. Both contribute to weight gain. From 1970 to 1997, the supply of soft drinks (the main source of corn syrup in the diet) doubled, from 24 to 53 gallons per person.

then—it all went to land and farm equipment—but we ate well on very little money following Adelle Davis. Only later did we spend more money on local grass-fed meat, poultry, eggs, and dairy.

The Local Foods Middleman

On several occasions I've given a talk on direct marketing called *Beyond Farmers' Markets*. Perhaps, at first, the audience of farmers, market organizers, and others in local agriculture wonders why I would encourage *them* in particular to go beyond direct marketing. Surely the point is more direct marketing, not less. Shouldn't all farmers earn the retail price, as the Plancks do? *But the market for local foods will never serve as many producers and consumers as it could if direct marketing—cutting out the middleman—is the only method of getting local foods to market.* There are too many producers who will never sell retail and too many buyers who will not travel to farms and farmers' markets to buy local foods. They will, however, buy local foods in shops, supermarkets, restaurants, and schools. The dread middleman is key to all of these sales. His job is an honorable one, even in the market for local foods.

Direct marketing of local, ecological, and nutritious foods is growing fast, but in absolute terms it is paltry. Direct marketing means selling directly to the end consumer. Farmers' markets account for only \$1 billion in sales per year. Other forms of direct marketing (mostly unmeasured) include pick-your-own, agri-tourism at country hotels, and farm shares, also called Community Supported Agriculture.²⁰ My liberal definition of direct marketing includes restaurants when the farmer sells directly to the chef, who is virtually the end consumer. In the chef's hands, the food is utterly transformed from raw ingredients into what is regarded as a 'dining experience.' Even if we add these sales to farmers' markets' \$1 billion, direct marketing will not challenge the conventional food chain. Grocery stores and restaurants account for 80% of food sales. Very little food at shops, supermarkets, and restaurants is local or sustainable.

Organic farming has been the big success story since federal standards became law in 2002. Sales are growing fast. The US organic market is projected to reach a value of \$30.7 billion by 2007, with an annual growth 21% between 2002 and 2007. Yet organic farming—even large-scale, 'industrial organic'—is still small. Recall that sales at Whole Foods were \$3 billion in 2003—a drop in the bucket compared with the \$500 billion Americans spend on food. At \$13 billion per year, organic foods represent just 1-2% of all food sales. Half of those sales go to supermarkets.

Clearly, we have work to do to expand the sale of local and ecological foods. It may seem odd that I sometimes speak of moving beyond farmers' markets to

²⁰ A farm share is a weekly order of seasonal produce, sometimes including meat, dairy, eggs, and flowers. The customer pays in advance for a season. Benefits for the farmer are the interest-free loan early in the season, when expenses for supplies such as seed are high and income is low, and the flexibility of what goes in the order. Some farm shares require buyers to do work too, such as picking vegetables or packing orders.

farmers and others who invented the methods of direct marketing we celebrate. I do this precisely because they are the very farmers, entrepreneurs, and local foods activists who will expand the market for local foods by going beyond direct marketing. They will develop the new organizations to serve the functions the market for local foods lacks.

The New Local Foods Chain

This project is ambitious. To expand the market for local foods, we need to duplicate every link in the conventional food chain, including infrastructure, middlemen, processors, and related businesses. Furthermore, if the term ‘market for local foods’ is to have any meaning, this new, alternative food chain must reflect what I call *local foods values*. These include:

- Food produced, processed, distributed, packaged, and sold using efficient, humane, sustainable, and healthy methods
- Regional distinction, so the bio-region is evident in the food
- Seasonality, freshness, and quality, including wholesomeness
- A fair price to the producer or purveyor—that is, the producer must be able to make a living. Food must not be artificially cheap.

The food chain is longer than it looks. It starts with the most basic agricultural supplies such as amendments for soil fertility. The solution preferred in the conventional food chain? Nitrogen fertilizer made with cheap oil. Our method must be different. Composted animal manure and yard waste (which fills 20% of American landfills) and calcium from ground limestone are ecological soil amendments. The next link in the food chain involves all methods of production including farming, aquaculture, and the fishing, collecting, or hunting of wild foods. The third major stage is slaughter and processing, including livestock, fish, and game, and production of value-added products such as cheese, jam, and wine. The next link involves packaging; storage; transportation; distribution, including middlemen; and sales. Sales include wholesale customers, institutional clients such as schools, the military, and other government agencies, the catering and restaurant industry (including fast food), shops, supermarkets, and, of course, the darling of direct marketing, the consumer.

Let’s pause to consider one link in the food chain—agricultural supplies—and how it might differ if it reflected *local foods values*. Consider the most fundamental factor in agriculture: soil fertility. The premise of sustainable agriculture is that only healthy soil makes healthy plants; only healthy plants, in turn produce healthy animals. Human nutrition, finally, depends on healthy plants (tomatoes) and animals (beef). It is not necessary to turn to heroes of sustainable agriculture such as Wendell Berry to find the expression of this principle. It is right there in the preamble to the federal organic standards. According to the National Organic Standards Board, ‘The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.’

On our un-certified organic vegetable farm, we follow the basic premise of organic agriculture: healthy plants begin with healthy soil. We spread ground limestone to build soil fertility and strengthen the root tips of our growing cucumbers, tomatoes, and squash. We kept a milk cow and some chickens for family use, but we didn't have enough animal manure to meet our own soil fertility needs, so we also hauled in horse manure from local stables. Not only do humans require animal foods in the diet. Sustainable agriculture itself requires animals. The ideal modern farm using ecological and traditional methods integrates plant and animal husbandry. This closed, symbiotic system is, of course, utterly contrary to the logic of industrial agriculture.

Industrial agriculture prefers to divide each stage of production in ever tinier increments, from which the greatest possible efficiency must be squeezed. When the temperature is turned up just another fraction in the pork factories, the pigs gain weight a little bit faster. On a diet including plastic pot scrubbers as a source of fiber, dairy cattle can still gain weight—and pot scrubbers are, presumably, cheaper than more wholesome sources of fiber, or the animal science researchers would not bother to test them. Industrial agriculture isolates the components—they are more than components, they are living animals, but they are seen as merely factors of production—in order to achieve maximum control, and to add minimum input for maximum results, chiefly weight gain. An integrated agriculture, by contrast, employs all the animals and plants in harmony together. Grass-farmers, for example, graze beef and dairy cattle on rocky, hilly, or marshy pasture unfit for plowing. When the farmers move the cattle to fresh pasture, they allow browsing chickens and poultry to follow. The poultry rummage in cow pats for protein-rich insects (poultry need lots of protein) and, along the way, spread out the manure in the pasture, building soil fertility. All the animals are well-fed—the grass-eaters on grass, the poultry on grass and bugs. The waste—animal manure—is not a waste at all, but a resource. The farmer's thrift has made use of naturally abundant grass and un-tillable soil. With animal manure he has even improved the soil, all while producing nutritious beef, milk, poultry, and eggs. *Local foods* values create a virtuous circle of health-related, environmental, and efficiency benefits.

Gaps in the New Local Foods Chain

Unfortunately, the market for local foods is missing most of the components of the conventional food chain, from processing to distribution. There are notable exceptions. The California company Niman Ranch, for example, has greatly expanded the national production, distribution, and sale of natural beef, lamb, and pork raised by 400 independent farmers and ranchers. In 1971, Bill Niman was a rancher in Bolinas who could not meet demand for the meat he was raising. He started to work with other farmers to supply his customers, and in 1995, he created Niman Ranch, Inc. to finish, slaughter, and market the meat. With the Animal Welfare Institute, the company set high animal husbandry standards including humane methods, natural feeds including pasture, and allowing animals to mature naturally. Niman Ranch sells fresh beef, lamb, and pork, and

processed and cured meats such as hot dogs, bacon, sausage, and *lardo* to shops and restaurants nationally including Trader Joe's, Whole Foods, and the burrito chain Chipotle. The brand is famous for quality. Niman Ranch was a ranch in 1971 and it still is. The company itself raises beef cattle and much of its pork, which makes good business sense.²¹ 'We understand first hand the challenges of raising livestock,' says Niman. The company also owns the cattle during finishing, which means it has a greater stake in healthy, happy animals and maintains control over care, feeding, and handling in the crucial weeks before slaughter. But as a business, the company is more middleman than farmer, and that's just what farmers and ranchers needed.

The market for local foods needs more farmers and entrepreneurs like Bill Niman to create other missing components of the food chain. How exactly they do it need not concern us too much. Some functions, such as distribution, are best set up as businesses. Others, like regional farmers' market networks, commercial kitchens, or slaughter facilities, could be run for-profit, as non-profits, or as public-private partnerships. A creamery could be publicly financed and privately managed. Other functions are both social and logistical, such as cooperative joint processing, marketing, and distribution organized by producers.²² These are a few concrete examples of missing components.

- Inadequate **slaughter facilities** for regional meat producers. Animals travel too far from farm to slaughter. This is inefficient for farmers and leads to poor quality meat, because of the stress hormones that build up on long journeys. Know-how is missing. Butchers are unwilling or unable to produce cuts of meat or recipes farmers and consumers demand. A knowledgeable butcher can discuss with a chef how every cut can be used, which allows the chef to buy the whole animal instead of only the common or best selling cuts, such as tenderloin. Chef and farmer benefit when the cuts are affordable and the farmer sells a whole animal.
- Inadequate **storage, transportation, and sales equipment to sell chilled foods** including meat, fish, and dairy conveniently and attractively. Most farmers' markets, for example, do not provide electricity.
- Inadequate **processing facilities for fruit and vegetable producers** to make juice, preserves, sauces, salsas, and dried fruits to their own recipes. We need to extend the season for local foods in cold climates with preservation.
- Inadequate **wholesale markets for regional produce** to serve larger growers and institutional buyers such as shops, restaurants, and schools. Such a market is under review by New York State, and it appears there is substantial demand from farmers and from buyers.

²¹ The pork side of the business is half-owned by pig farmers themselves.

²² The social element is significant—and troubling. Some of the most isolated, passive, and depressed farmers are dairy farmers, whose only role in the food chain is the production of raw fluid milk. The milk truck comes every other day to siphon it away. There is no contact with consumers, or even retailers. Dairy farmers are sometimes wary of each other. Overcoming social obstacles to farm cooperation is no small task.

- **Lack of creameries** for bottling fluid milk and cream and making fresh dairy products such as yogurt, crème fraîche, and sour cream. This is closely linked to the inability of small dairy farmers to break free of the co-op system that sells milk to distributors, food processors such as Kraft, and retailers. Increasingly, the co-ops do not represent the interests of dairy farmers. A major obstacle to earning more money per gallon of milk is the farmer's inability to leave the co-op system to bottle or process and then market his milk. Yet technology make small-scale processing possible. In New York, experts designed a small cheese-making unit costing about \$65,000. It can move from farm to farm.

A Future for Local Dairy Farms

To illustrate how we could develop the market for local foods, consider creameries. In New York, dairy is critically important to agriculture—much hilly land upstate is good for little but grazing—and the need for independent processing facilities is urgent. This problem is political as much as logistical, in that rural development policy has not favored *local foods* values. Cornell University estimates that over the next 15 years, New York will lose 6,000 independent dairies with fewer than 200 cows. By 2020, those dairies will be replaced with 100 feed-lot dairies averaging 1,400 cows. As these 6,000 farms go under, milk production will remain constant. According to Thomas Lyson, director of the Community, Food, and Agriculture Program at Cornell, ‘This policy sets the stage for the collapse of small farm dairying in New York.’ Furthermore, Lyson points out that consolidation is not necessarily efficient, as its proponents often claim. To stay afloat, the same large dairies rely on tens of millions in subsidies, usually related to the environmental clean-up costs from manure lagoons. In New York City, meanwhile, there is huge demand for fresh local dairy foods.

Imagine what a healthy New York dairy industry could look like. Those 6,000 small dairies could send raw milk to 100 creameries and 100 artisanal cheese makers. The creameries and cheese makers could be independent businesses or cooperatively owned by dairy farmers. They would make bottled milk, cream, butter, crème fraîche, sour cream, ice cream, yogurt, and cheese. The creameries and cheese makers would sell to shops, chefs, schools, and individuals at public markets for regional foods in New York State and especially New York City. They could market and deliver products themselves or hire a distributor. The food chain would look like this:

farmer →creamery →distribution →markets, chefs, shops & schools →consumers

This is not direct marketing, of course. Each arrow represents a transaction—a *middleman*. Of course, a dairy farmer could also bottle her own milk or make her own cheese and sell directly to consumers, and some do. In Ancramdale, New York, the family-owned Ronnybrook Farm and Dairy produces milk without pesticides or artificial hormones. In the summer, the cows eat grass. Thousands

of New Yorkers buy Ronnybrook's unhomogenized milk, cream, butter, yogurt, crème fraîche, and ice cream. But demand for fresh dairy is huge. New York State, and especially New York City, could drink the milk of many Ronnybrook dairies. Moreover, not all dairy farmers want to bottle milk and sell it retail, and still fewer can.

Only a generation ago, thousands of dairy cows grazed the green rolling hills of the Catskill Mountains. In 1955, Delaware County ranked tenth in the nation for milk production on more than 2,000 farms. In 1987, there were fewer than 400 farms in the county. Reminders of the thriving dairy industry are everywhere. Peeling wooden signs for ice cream stands long abandoned dot the country roads. If Cornell's own bleak statistics come true, the local dairy industry will soon be lost forever. Already economically depressed, the Catskills will take another hit, even as New Yorkers clamor for fresh, local milk. The alternative is to create a new local foods chain. The result will be more farms, a healthier environment, cleaner water for New Yorkers who drink from the reservoirs in the region, more independent rural businesses, more rural jobs, and regionally distinct tourist attractions. The most important benefit, of course, will be more fresh local milk and butter in New York City kitchens.

Bring on the middleman, before it's too late.

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NOTES & REFERENCES

The Omega-3 Connection is an excellent paperback for the lay reader on the imbalance of omega-3 and omega-6 fatty acids in the American diet.

Statistics on farms, farm income, farmers' markets, and animal and total food consumption come from the USDA.

Figures on the organic market come from the Organic Trade Association.

For all the gory details of factory farming (including statistics on consolidation in the beef and poultry industry), Eric Schlosser's *Fast Food Nation* is superb. How the animals are treated and what goes in fast food got everyone's attention, but Schlosser was apparently dismayed that the human cost—paid by slaughterhouse workers and burger-flippers—didn't raise more fuss.

Joann Grohman's wonderful self-published books, *Real Food* and *Keeping a Family Cow*, expound on the virtues of traditional foods, the importance of animal foods in the human diet and of animal husbandry in farming, and the pleasures of keeping a cow (as my family did) for fresh raw milk.

On the catastrophe of modern agriculture, including the monstrous direct and indirect cost in oil and environmental havoc, see Richard Manning's *Against the Grain*.

Marion Nestle's *Food Politics* is excellent on obesity and official nutrition policy.

The decline of the New York State dairy industry is told in *Too Wet to Plow* (1989). Thanks to Paris Reidhead for digging it up.

- London Farmers' Markets: www.lfm.org.uk
- FreshFarm Markets in Washington, DC: www.freshfarmmarket.org
- New Orleans farmers' market: www.crescentcityfarmersmarket.org
- Ronnybrook Farm & Dairy: www.ronnybrook.com
- Niman Ranch: www.nimanranch.com