

Up on the Farm

by Blake Hurst

Food these days makes a political statement. We no longer eat only for nourishment or enjoyment. We now have to consider the message we send by eating a Big Mac or buying a pound of shade-grown coffee. What's natural? What's organic? Where is our food grown, and how? And where should we shop for it? We worry about the sustainability of the food system, the environmental effects of food production, and the damage beef cattle do to national forests. Many believe that food grown on small farms is better than food grown on large farms, and that food produced without modern technology must surely be safer than bioengineered foodstuffs grown by heartless corporations. We have never worried so much about the *quality* of what we consume, even as we consume so much that the greatest health threat comes not from where or how our food is produced but from the sheer quantity of it that we eat. We've never had so much—so many choices in such variety and at such low cost—but we can't seem to enjoy our bounty.

The concern about what we eat has brought unwanted attention to farmers like me. If you believe our critics, we farmers are slaves of large corporations, mindlessly applying dangerous and unneeded pesticides to our crops, fouling streams and rivers, denuding the landscape of all that's beautiful. Our nitrogen causes hypoxia in the Gulf of Mexico, our phosphorous causes algae to bloom—and many of us smell bad. Or at least our animals do. Farmers and the organizations they belong to have stood idly by, the argument goes, while the family farm has been replaced by the profit-seeking, countryside-despoiling corporation. Everyone decries the disappearance of the family farm, yet many hold the simultaneous and contradictory view that the present-day residents of rural America are the last remaining repositories of bigotry and ignorance—armed and angry white males, standing in the way of progress, diversity, and sensitivity.

It's a measure of the success of farmers, processors, and everyone else involved in the complex workings of our food system that Americans have the luxury of these worries. If our stomachs were empty, our problems would be more particular and our needs more immediate. But since we're fortunate enough to be able to worry about *who* produces our food and *how* they do so, we ought to be better informed about the system that puts lunch on the table.

The system has not evolved through accident, or conspiracy, but rather through a series of choices made by farmers and consumers. Consumers want cheap food and farmers want to cut costs. Many of the technologies we use have made farming a much pleasanter occupation, which is important to farmers, and should be important to our customers. As a youngster, I used to spend



*On the author's Missouri farm, soybeans emerge from the stubble of an old corn crop.
His no-till farming involves a tradeoff: more chemicals but less soil erosion.*

a month each summer with a hoe, walking down soybean rows cutting weeds by hand. That activity was good for my character, I guess, and it certainly qualifies as natural and organic. But it was a miserable way to spend my summers, and we happily and quickly adopted chemical and biotech substitutes for what was backbreaking, boring labor. The costs of various technologies are important to everyone in the food chain, and even 12-year-olds swinging hoes are more expensive than pesticides. Consumers cannot enjoy the prices and variety we farmers provide without embracing the technologies we use.

The fastest-growing segment of the food market is organically grown produce, with the market for "natural" foods increasing by 20 percent a year and totaling more than \$11 billion annually. Once the province of Birkenstock-wearing '60s Berkeley burnouts, organic food has now hit the big time, and even a subset of political conservatives has staked out a position as "crunchy-cons," emphasizing the traditional over the modern in food production as well as social and economic policy. Some of the most successful food companies on Wall Street are organic or natural food marketers, including Whole Foods Market, whose stores, boasting rapid growth and higher sales per square foot than traditional supermarkets, appeal to upscale consumers who practice a sort of food snobbery. Because organic food prices tend to be substantially higher than those for more plebian fare, upscale consumers, of necessity, are the target market. The U.S. Department of Agriculture (USDA) has

just established standards for organic certification, and, earlier this year, the Senate was tied in knots over those standards when meat producers in the South sought an exemption for feeding nonorganic grains to their animals. A provision had been included in the standards that would have allowed pro-

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ducers to purchase nonorganically grown grain if the price of organic grain was more than twice the market price of corn and other feedstuffs grown non-organically. The change was beaten back by organic purists, proving once and for all which way the political winds are blowing, and ensuring organic poultry's position as a luxury

item. On the other hand, perhaps organic food producers on a budget will just cheat, since no test exists that can easily discern the diet of a chicken sold through organic channels, and taste tests consistently show no difference in taste between organically and traditionally grown foodstuffs.

Bending the rules can be a problem with all "natural" products. On our farm, we grow petunias, marigolds, and other bedding plants, and we were recently surprised to find that one of our customers was selling our plants at an organic farmers' market. We explained that, though our pest control program relies on biological pesticides, we do use nonorganic fertilizer. She kept right on loading her truck, and her customers at the organic farmers' market no doubt feel superior to those despoilers of all that is right and good who add to the world's problems by purchasing flowers from garden centers and Wal-Marts.

Farming, by its nature, is a physical process that operates in predictable ways. That may not seem a controversial statement, but it's a reality sometimes ignored when people talk about the way food is produced. The preparation of food may be satisfying on an emotional level and full of delights for the senses, and eating may be a spiritual experience (if you don't believe that, you should try a cherry pie prepared by my daughter from cherries grown fresh on our farm). But growing corn, to take one example, is a physical process that depends upon concrete relationships among the factors needed for growth. Corn uses nitrogen, phosphorous, and potassium in large amounts, and several other minerals in smaller amounts. It needs sunlight and water. The tilth of the soil is important, and competition from weeds and pests will limit production.

But to hear the advocates of organic farming tell it, your average corn plant has a conscience and will grow better if inputs are derived from "natural sources." That just isn't so. Corn needs nitrogen and cannot differentiate between nitrogen from animal waste, legumes that fix nitrogen, or a large fac-

>BLAKE HURST, a contributing writer to *The American Enterprise*, is a farmer in northwestern Missouri, where his family raises corn, soybeans, and bedding plants. He and his wife, Julie, have three children, and the oldest works on the family farm. Copyright © 2003 by Blake Hurst.

tory. Using each of these forms of nitrogen incurs both economic and environmental costs. For example, if I apply enough animal waste to my land to supply the crop's nitrogen requirements, then I've applied too much phosphorous. That can be an environmental disaster if the excess washes into a nearby stream during a spring thunderstorm. The costs of various technologies are also important to everyone in the food chain. I recently received a catalog of organic products. Included was some "Sup'r Green Chicken Manure, the most natural of fertilizers." To apply the fertilizer my corn crop needs using this product would cost around \$1,000 an acre more than I'm spending now. My family raises nearly 2,000 acres of corn. Perhaps it might surprise those who read about huge subsidy payments, but we don't have an extra \$2 million to spend on fertilizer. Of course this example is extreme, and there are cheaper ways of fertilizing organically, but the principle still applies: The costs of various technologies matter, and the economics of farming are merciless. Even if I had a source of animal waste to use for fertilizer, my neighbors

would no doubt complain about the smell and the environmental risk (chiefly due to the runoff of phosphorous) of applying manure to my fields. Most of the controversy here in the Midwest over environmental issues involves just this problem: how to dispose of animal waste without threat-



In 1801, when this medallion was struck, 90 percent of Americans lived on farms. Today, far fewer farmers produce far more wealth.

ening the health and well-being of nearby communities.

If I plant legumes and plow them under to fertilize the next year's corn crop, then I lose a year's production of corn, and somewhere more land must be put

into production to supply that corn, land that is

likely to be less productive and more environmentally sensitive. If I don't use chemicals to control weeds, then I have to use tillage, which leads to increased erosion. To farm organically is to farm more land, leaving less for wildlife and open space. To farm without using chemicals is to increase erosion. Using no-till methods of farming, we have been able to cut erosion on our farm by around 10 tons per acre. That's nearly 40,000 tons of irreplaceable topsoil per year. If consumers demand organic methods, that's the way we'll farm. But they should recognize that their choice entails environmental costs as well as benefits.

Whenever the benefits of "natural" products are touted, I'm a bit skeptical. After all, anthrax is natural, and arsenic, and nicotine. The USDA has just released the requirements farm products must meet to be labeled "organic"—among them, that all minerals used in their production must be organic. But what does that mean? It's been a long time since my last chem-

istry class, but aren't minerals sort of the definition of inorganic? I suppose USDA means that the minerals must appear in nature and not be produced by nasty artificial processes. But how in the world will a corn plant know the source of those minerals? Look, I'll sell you whatever you want to buy. If you want me to perform ancient pagan fertility rites while I plant my corn crop so that my John Deere tractor and I are one with nature, I'll do it. It's also fine with me if you want to call Miss Cleo on the Psychic Hotline. But don't expect me to take either action seriously.

Crop production, then, is relentlessly physical, a chemical process turning on ironclad relationships between inputs and outputs. But are those who *raise* the food merely parts in a mechanical process, too? Is farming a business like any other, and may the lowest-cost producer win? Does it matter *who* farms? Is there an intrinsic value to having our food produced by families working together?

There's no doubt that farmers are romanticized, and from a farmer's point of view, that's not a totally unpleasant experience. But sometimes I just have to shake my head at some of the things people say about us. People such as Christopher Shustak, a Massachusetts resident who was profiled in a recent *Boston Globe* story. Mr. Shustak spends most of his free time in search of locally produced organic food, "locally produced" to be interpreted loosely, as he drives 85 miles each week to buy milk and makes a 1,000-mile trip each year to buy peaches. He buys the milk—whole and unpasteurized—from a Connecticut farmer because it tastes better (no

surprise there; fat tastes good) and because the Connecticut farmer "knows his herd of cows."

Well, knowing a cow is different from loving a cow, as I can attest from personal experience and more than a few cuts, scrapes, and frustrations supplied by the

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bovines that used to reside on our farm. After my wedding day and the days my children were born, I'd have to say that the day the last cow left Hurst Farms was the happiest of my life. The *Globe* article goes on to say that small farmers treat animals more humanely than they're treated on large farms. That ain't necessarily so; the treatment of animals depends upon the management ability and character of the farmer, and those traits don't correlate all that well with size.

Of course, Mr. Shustak is not alone. The homepage of the Michigan Organic Food and Farm Alliance asks a question that had never occurred to me: "Why can't we know our farmers the way we know our friends?" That's not necessarily an attractive prospect to me; I'd have to shave every day. One of the great joys of farming is solitude. Anyway, there aren't enough consumers within 100 miles of here to support a farm our size, let alone those of our neighbors. I don't need to know the guys who made my truck, or the folks who manufacture my overalls, or the people who print my newspaper. I do value my



Farming's good old days? The sisters in this 1928 photograph probably didn't think so.

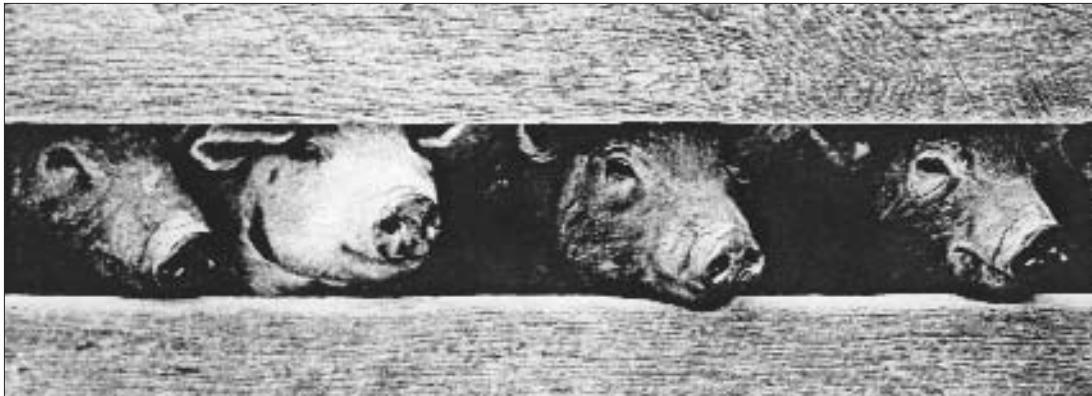
relationship with my mechanic, but other than that, I'm usually just interested in the price and quality of the good I want to purchase, not the spiritual relationship I might have with the person producing it. Farmers as a group are blunt, taciturn, and maybe a bit unpolished, not characteristics that lend themselves well to meeting the public. We value hard work and efficiency and doing things the right way. That's why we chose this profession, and why we fight so hard to remain on our farms. We'd just as soon leave salesmanship to used-car dealers and politicians.

So we ought not romanticize tillers of the soil, and we should be prepared for a certain lack of charm when we get a chance to meet "our" farmer. (By the way, doesn't that sound just a bit patronizing? I'm not your family pet, but rather an independent businessman who works hard, takes huge risks, and is immensely proud of his profession and his way of life.) Yet there is something about farming and ranching that makes them different from other professions. A community made up of family farms is a place that cares about the land's past, present, and future, because we hold it in trust for our children and their children. When I combine corn on the field we call the "Craig Bottom," I'm traveling over acres that my grandfather cleared with a mule in the 1930s, and I'm proud to be part of that tradition. Now some may have noticed that I'm lacking in consistency here, as I argue for my spiritual connection to this land while making light of the consumers' desire for a better connection with the people who produce their food. But the connection I feel—my allegiance—is to place, not to the products I produce. With continuing good fortune and hard work, our farm will last generations more, and that allegiance will be repaid as my children take their place on this piece of land.

Working on the farm with my father and grandfather, I learned lessons that made me a better citizen and a better person. Kids raised on farms are in touch with their environment in a way that's not possible for kids raised in a suburban subdivision, no matter how much time they spend worrying about recycling and preserving green space. Farming teaches a brutal work ethic that serves society well when farm kids move to the city. If farm work is not done well, and on time, there's no management committee to whom blame can be shifted. Every harvest is a report card on how we've done, and failure to perform ends with an auction: A life's work is sold to the neighbors.

It's a truism that family farms are no longer viable now that farms are getting larger and big corporations are responsible for most food production. Farms *are* getting larger, but it doesn't follow that there's no place left for the family farm. The number of farms in the United States has decreased from around six million in 1940 to fewer than two million today, and less than 10 percent of the remaining farms produce half of all sales. But of the two million farms that remain, almost all are still family farms. According to the 1997 census of agriculture, only 4.4 percent of farms, fewer than 100,000, are organized as corporations. Of the farms organized as corporations, around 85 percent are family corporations, set up chiefly for tax, liability, and estate-planning reasons. Those evil corporate farmers have average annual sales of less than \$400,000 each. By any measure, in an economy as large and complex as ours, these are tiny businesses.

Our own family farm is a fairly good proxy for what has happened to the structure of agriculture. There are six families involved: My two brothers, a nephew, my daughter, her husband, and I farm with my father. We're a large farm, I suppose—working more than 4,000 acres—but that still makes us a fairly small business, with gross sales that barely equal those of a McDonald's franchise or a large gas station. Family members provide all of the farm labor, although we hire seasonal help in the greenhouse that my wife and I own. We own the majority of our land, but do rent some land from family members, and we also rent land from a family that has leased it to our family for more than 70 years. Even though we would fit in the “very large family farm” class, as defined by the USDA, we aren't the kind of farm that would arouse much interest among critics of the structure of agriculture. We've made our compromises



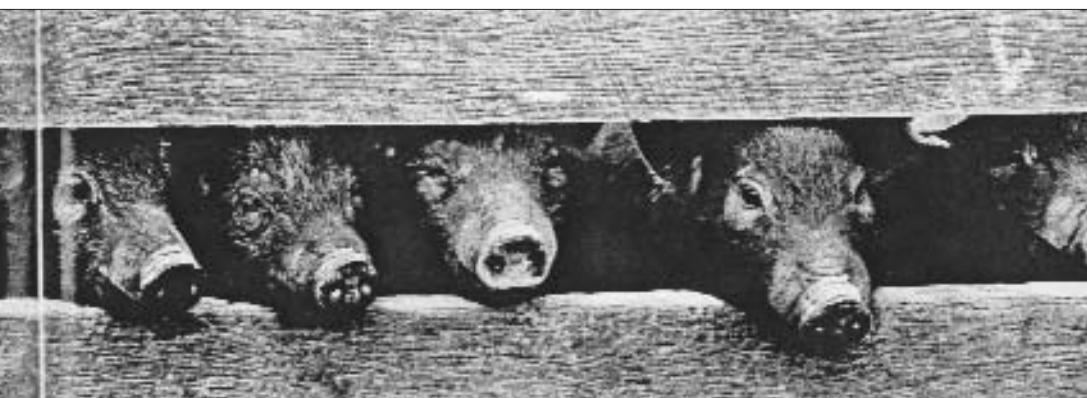
with technology and with a market that rewards size, but we've kept the family nature of our business. If we split our farm six ways, we would all be "small family farmers." We might well not be viable as individual entities, however, because we are much more efficient farming together. Our size is more a function of our ability to get along as a family than our rapacious nature or unbridled greed.

Family farms are not the predominant organization in all of farming, however. There are large producers in Florida, and California is populated with corporate farms that operate on a large scale. Small firms managed and owned by families dominate the great swath of agriculture in the middle of the country. These farms may cover several square miles, because technology allows farmers to work more acres, but in no way do they resemble the corporate agriculture that's part of the public's perception. The authors of *Against the Grain: Biotechnology and the Corporate Takeover of Your Food* (1998) suggest that agribusiness dominates agriculture the way Microsoft dominates software. That just isn't so. Large corporations will never be much interested in farming, because the profits are just too low and the risks too high.

The most visible and worrisome exception to the predominantly family-controlled structure of agriculture is in the production of pork, a \$40 billion industry. The last couple of decades have seen huge changes in the pork industry, as many relatively small operations have given way to giant producers. The 20 largest hog producers, those selling more than a half-million hogs a year, account for more than a third of the hogs sold in the United States. In *Dominion* (2002), Matthew Scully writes that this is a very bad thing. He's not happy with the way "factory" farmers treat livestock. He describes a tour of a factory farm: "A bedlam of squealing and chain rattling and guttural, roaring sounds I didn't know pigs could make greets us as Gay throws open the door. They are locked, about six hundred of them, not only in the barn but each between bars fitted to size. 'Confinement' doesn't describe their situation. They are encased, pinned down, unable to do anything but sit and suffer and scream at the sight of the gods."

These large factories do confine hogs on slatted floors, without the benefit of bedding, and in small places. But the hogs are raised this way to protect the babies from their mothers. The hog in a state of nature is not the pretty thing that Scully seems to imagine. Scully makes much of the maternal instinct in all crea-

Fecund and fast-growing, hogs were once known as "mortgage lifters" among small farmers. But today, industrial-style hog farms increasingly dominate the business.



Facts from the Farm

(All data from 2001 unless otherwise indicated)

U.S. farm output (2000): \$214.7 billion

U.S. farm workforce: 2,923,100

U.S. food industry work force: 24 million

U.S. agricultural exports: \$53.7 billion

Percent of farm revenues from government subsidies:

U.S.: 23 European Union: 34 Japan: 59 Australia: 4

Size of U.S. farms (1997):

Under 10 acres: 154,000

10–499 acres: 1,407,000

500–1,999 acres: 277,000

2,000 acres and over: 75,000

Number of U.S. farms with sales of \$100,000 or more (2001): 349,180

Percent of U.S. farmers age 65 or older (1997): 32 percent

Total U.S. land in crops: 941.2 million acres

Percent in GM crops: Corn (34) Soybeans (75) Cotton (71)

Percent of Americans' disposable income spent on food:

In 1950: 20.6 In 2001: 10

Undernourished pop. in developing countries (in millions, 1998–2000):

India: 233

Sub-Saharan Africa: 196

Other Asia and Pacific: 156

China: 119

Latin America and Caribbean: 55

Near East and North Africa: 40

tures great and small, but my perspective on confinement was formed as a boy after watching my sow eat her litter and put a premature end to my 4-H project.

Confinement may be necessary, but the appearance of huge hog factories has not been good for agriculture. Environmentalists act as if this were the first generation of hogs to defecate, and we've never had to deal with animal waste before. But of course we have. The difference now is the concentration of waste in small areas. The old saw that the "solution to pollution is dilution" perfectly captures the problem we face. When every farm had hogs, the waste was an asset, and each farmer applied it to his own fields to provide fertility and organic matter. I know now of only two or three hog producers in my area, formerly a major pork-producing center. We've concentrated the waste problem, the smell, and the dust. That's bad for the areas where hogs are raised, and for the folks who live near hog farms.

It's not too late to question the direction in which the hog industry is moving. The state of Florida has recently done so, by outlawing all forms of confinement for the production of pork. It's a decision without much practical import because there were only two hog producers left in Florida. But perhaps it's a harbinger. We may, as a nation, someday decide that we won't raise hogs in confinement, or we may decide to limit the number of hogs in a geo-

graphical area. If we do mandate how hogs are produced, we'll have to make some other choices as well, including moving away from free trade, because our competitors will not be so squeamish and will be able to produce cheaper pork. Pardon me for saying this, but there ain't no free lunch. People will still eat pork, but it won't be raised on an American farm.

The virtues of natural food may be oversold and the quest for organic foodstuffs may often verge on the mystic, but that doesn't mean the discerning consumer should give up supporting small farms that raise animals and crops in traditional ways. A trip to a farmers' market, for example, where the actual producers of food are selling what they've grown, may well ensure fresher, better-tasting food—although it will taste better because it hasn't spent a week on a truck, not because it's been raised according to Zen-like principles. It's regrettable that so many farmers are located far from cities with the populations to support that sort of marketing. If consumers want and are willing to pay for beef grown without hormones, or chickens that have pecked in the dirt, then farmers should produce them.

But sometimes the decision about how much technology to use is not so easy. Most of the corn I produce cannot be exported to Europe because I plant genetically modified (GM) seed. There's no reason—of science, safety, or morality—to reject GM crops, and we've been consuming them in the United States for nearly a decade without incident. Even Europe imports some GM crops. A cynic might note that European nations tend to reject "tainted" GM corn and other imports that compete with European-grown crops, but readily import genetically engineered soybeans, which have no ready replacement grown in Europe. Be that as it may, our exports have suffered because European governments reject most GM crops. The answer for farmers should be easy, I suppose: We shouldn't produce things the market doesn't want. But we suffered a drought here in the Midwest in the summer of 2002, and it caused the widespread appearance of aflatoxin, an opportunistic mycotoxin that appears in drought-stressed crops. (Aflatoxin, which can cause liver cancer, is one of the compounds Saddam Hussein was suspected of developing as a biological weapon.) It happens that GM corn is more resistant than traditional varieties to aflatoxin. So if I produce "what the consumer wants" and reject the best technology, I expose the consumer and the people who work on my farm to greater risks of disease. Are we supposed to take comfort in the fact that those risks have an "organic" source?

Farmers aren't stupid. We don't make choices because of glossy ads in farm magazines, or in response to a mindless search for the latest, glitziest technology. In fact, we're the original conservatives, extremely slow to adopt new technologies of any kind. But we're faced with physical problems that don't lend themselves to spiritual solutions, so we've adapted the latest technologies to our ends. Weeds have to be killed, plants require nourishment, and people need food that's safe and affordable. Those are the realities, and to ignore them while making supper a sacrament and "natural food" a religion will raise the price of food and decrease the variety available to consumers. That may suit upper-class professionals and so-called crunchy conservatives, but it ill serves the middle class and will devastate the poor. □