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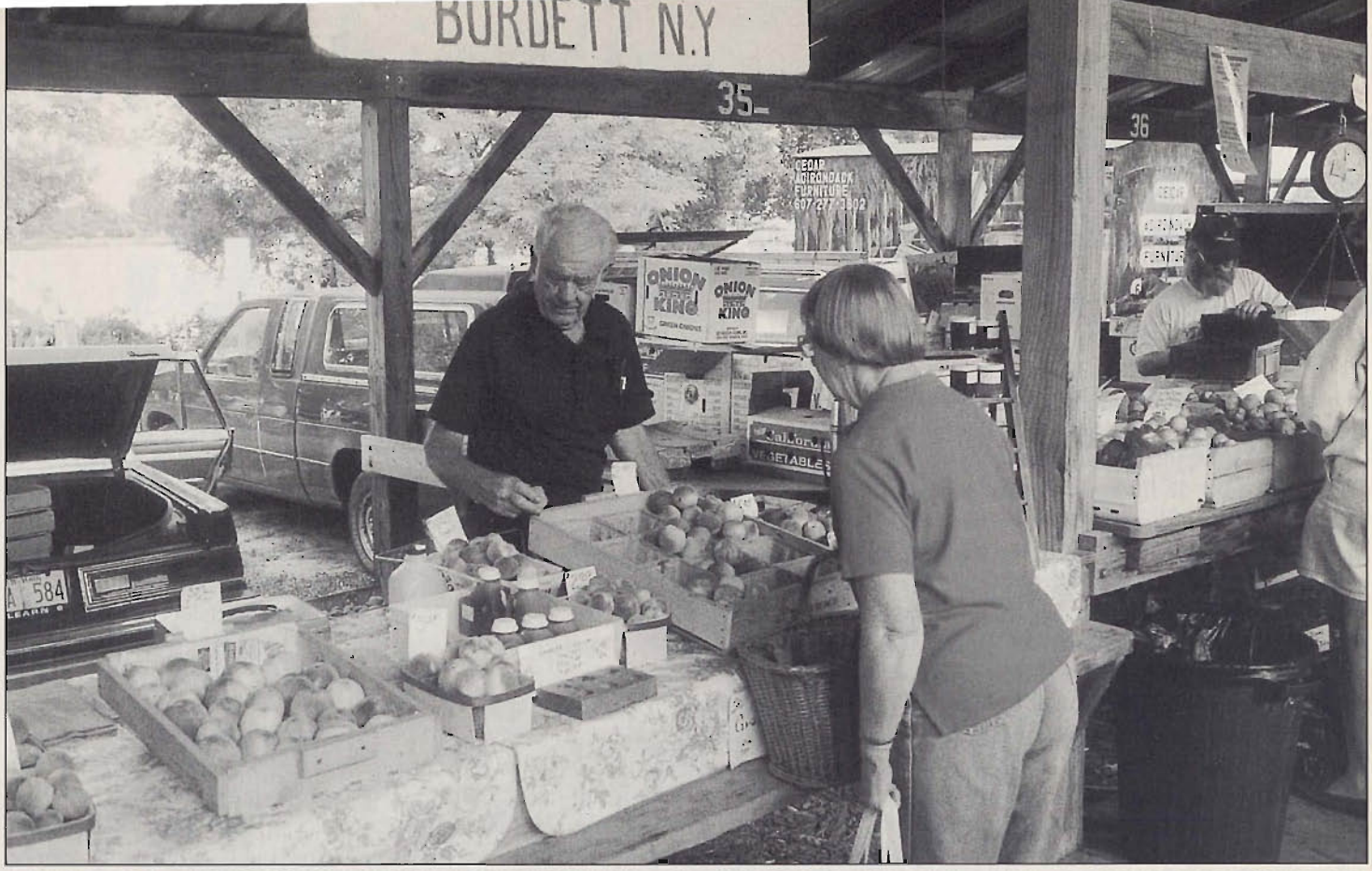

Pick a little. Talk a little. Farmer's markets in New York increased from six to 268 between 1964 and 1998, providing direct contact between farmers and consumers.

Moving Toward CIVIC Agriculture

While civic agriculture does not represent a challenge to the conventional agriculture and food industry, it does include some innovative ways to produce, process, and distribute food.

By Thomas A. Lyson

Civic Agriculture. The name evokes many situations, but here it means a locally-based agricultural and food production system that is tightly linked to a community's social and economic development. Farmers' markets, community gardens, and community-supported agriculture are part and parcel of civic agriculture. Since these activities are not monitored by federal or state agencies, what is known about them comes mainly from the civic agriculture industry itself.

While civic agriculture does not represent a challenge to the conventional agriculture and food industry, it does include some innovative ways to produce, process, and distribute food. Civic agriculture is best understood when compared to conventional agriculture and food production.

The Conventional Model of Production Agriculture

The conventional agricultural production system is grounded on the belief that the primary objective of farming should be to produce as much food as possible for the least cost. The disciplinary underpinnings of conventional agriculture come from experimental biology and neoclassical economics and are driven by the twin goals of productivity and efficiency. The logic of experimental biology says that increasing output is the primary goal of scientific agriculture. Neoclassical economics points out that optimal efficiency and presumably maximum profitability, can be achieved by manipulating the factors of production.

The prime movers behind conventional agriculture in the United States have been the land grant colleges, the U.S. Department of Agriculture, and more recently large agribusiness firms. The land grant system was organized to bring scientific research to production agriculture, and the system still emphasizes production in its classrooms and research laboratories. As different production-oriented disciplines formed, they broke farming into smaller and smaller niches, but the goals were the same across disciplines. In the plant sciences, attention was directed at increasing yields. Animal scientists focused on health, nutrition, and breeding. The advances wrought by land grant scientists and technicians were filtered through a farm management paradigm that used — and still uses — best management practices (BMPs) as the blueprint for successful operations.

The production model focuses primarily on commodities as objects for observation, analysis, experimentation, and intervention. Farmers and farms have largely been ignored by the conventional agricultural science community. Farmers are often viewed as managers whose primary tasks are to follow production procedures outlined in the BMPs; farms are simply places where production occurs without connections to the local community or the larger society.

Agricultural industrialization, propelled by mechanization, the increased use of chemicals, and advanced biotechnologies, has proceeded almost unabated since the 1920s. During this period, farms have become larger in size and fewer in number. The use of land has intensified and yields per acre of farmland have increased dramatically. The amount of farmland has decreased while capital investment on farms has increased. And farms have been woven into ever tighter marketing channels.

The Role of the Multinational Food Corporation

Beginning in the 1980s a wave of mergers resulted in a tremendous consolidation of power in the food sector (Heffernan). The mergers have yielded multinational food corporations that have taken on the task of organizing and coordinating the production, processing and distribution of food. Today, mass-production food processors, distributors, and retailers have become dominant fixtures in the U.S. food system. The degree of concentration has reached the point where the ten largest U.S. based multinational corporations control almost 60 percent of the food and beverages sold in the United States.

The sheer size of the multinational food giants has important consequences for farming. Large processors and retailers centralize their purchases of farm products. Because they seek large quantities of standardized and uniform products, they have considerable power in dictating under what conditions agricultural production will take place. Nearly a decade ago, Hart commented, "Size brings economic power and this is particularly significant when set against the structure of the farming industry with its large number of relatively small producers. Some of the most dramatic recent changes in agricultural marketing reflect the power of these new markets to extract their requirements from the farming industry." The concentration and the power of the huge firms has surely grown since then.

The Growth of Contract Farming

Food processors enter into formal contracts with individual farmers to meet their supply needs. Although there are no systematic data available on contract production, Welsh notes that "... since 1960, contracts and vertically integrated operations have accounted for an ever-larger share of total U.S. agricultural production." In the United States today, about 85 percent of the processed vegetables are grown under contract. Contract farming gives food processors significant control over their agricultural suppliers. While processors benefit from these arrangements, farmers lose much of their independence. Contracts frequently specify quantity, quality, price and delivery date. In some instances, the processors are completely involved in the management of the farm.

As contract farming spreads, production at the local level is reconfigured. The processor and not the farmer determines what commodity will be produced and where, when and how. The requirements force production to take place in narrowly defined supply areas pivoted around the location of processing plants.

The globalization of the food system means that a small number of producers will contract with a small number of processors in a highly integrated business alliance. Drabenstott estimates that "... 40 or fewer chains will control nearly all U.S. pork production in a matter of a few years, and that these chains will engage a *mere fraction* [italics added] of the 100,000 hog farms now scattered across the nation." In a similar vein Gary Hanman, the chief executive officer of Dairy Farms of America, notes that, "We would need only 7,468 farms [out of over 100,000 today] with 1,000 cows if they produced 20,857 pounds of milk [per cow] which is the average of the top four milk producing states" (*Northeast Dairy Business*). The consequences are clear, "... supply chains will locate in relatively few rural communities. And with fewer farmers and fewer suppliers where they do locate, the economic impact will be different from the commodity agriculture of the past" (Drabenstott).

From Production to Development

The viability of locally-based economic systems is directly tied to the collective efforts of the communities to which they belong. Research by Walter Goldschmidt, C. Wright Mills and Melville Ulmer illustrates the benefits of smaller scale, locally-oriented enterprises. Goldschmidt studied agricultural communities in the Central Valley of California, while Mills and Ulmer focused on manufacturing communities in the Northeast and Midwest. Both found that communities with an economic

Bearing Fruit: Unlike conventional agriculture, all segments of the new civic agriculture are growing.

Photo courtesy the author.

base made up of many small, locally-owned firms had higher levels of well-being than communities where the economic base was dominated by a few large, absentee-owned firms. More recent research has reaffirmed the many positive benefits to communities that embrace a *community capitalism* model of economic development (Tolbert, et al.).

Communities that nurture local systems of agricultural production and food marketing as one part of a diversified economic development plan can gain greater control over their economic destinies. They can also enhance the level of interaction among their residents in order to contribute to rising levels of civic welfare, revitalize rural landscapes, improve environmental quality, and promote long-term sustainability.

Toward a Civic Agriculture

Since large-scale, industrial farming is rarely organized to serve local markets, most consumers rely on food produced elsewhere. However, communities can provide alternatives to the global food system if they develop the infrastructure, maintain a farmland base, and provide the technical expertise so that producers can compete in the local marketplace against the highly concentrated, corporate food system. Accumulating evidence shows a turn toward a more civic agriculture throughout the U.S. as communities begin to "relocalize" their food and agricultural systems.

An extensive literature review revealed six characteristics associated with civic agriculture in the United States (Lyson and Green, 1999):

- Farming is oriented toward local market outlets that serve local consumers rather than national or international mass markets.
- Agriculture is seen as an integral part of rural communities, not merely as production of commodities.
- Farmers are concerned more with high quality and value added products than with yield and least-cost production practices.
- Farming is often more labor intensive and land intensive and less capital intensive and land extensive. Farm enterprises tend to be considerably smaller in scale and scope than industrial agricultural production.
- Producers more often rely on indigenous, site-specific knowledge and less on a uniform set of BMPs.
- Producers forge direct market links to consumers rather than the indirect links provided by wholesalers, brokers, and processors.

Civic agriculture can be organized in many ways. Farmers' markets provide low-cost, direct contact between farmers and consumers and are an effective first step for communities seeking to develop stronger local food systems. Community gardens provide fresh produce to underserved populations, teach food production skills, and increase agricultural literacy. Organic farmers have often pioneered the development of local marketing systems, while eschewing conventional, chemically intensive farming for practices that are more environmentally benign. Community Supported Agriculture (CSA) projects forge direct links between groups of member-consumers (often urban) and their CSA farms. New grower-controlled marketing cooperatives are emerging to tap regional markets more effectively. Agricultural districts organized around particular commodities (such as wine) serve to stabilize farms and farmland in many regions. Community kitchens provide the infrastructure and technical expertise necessary to launch new food-based enterprises. Specialty producers and small-scale, on-farm and off-farm processors of products for which there are not well developed mass markets (goat/sheep cheese, free range chickens) add value in local communities and provide markets for 'civic agriculture' farmers. Each of these efforts has the potential to nurture local economic development, maintain diversity and quality in products, and provide forums where producers and consumers can come together to solidify bonds of community.

Unlike conventional agricultural enterprises, all segments of the new civic agriculture are growing. Table 1 reports findings from New York State where the Farming Alternatives Program has been tracking the growth of civic agriculture. Farmers' markets in New York increased from six to 268 between 1964 and 1998. Community supported agriculture did not exist in the state 10 years ago, by 1996 there were 64 CSA farms. The number of

Table 1. "Civic Agriculture" trends in New York State

Types of Civic Agriculture	No. (Year)	No. (Year)
Farmers' Markets	6 (1964)	268 (1998)
Organic Farmers	26 (1988)	236 (1999)
Small Wineries[a]	35 (1981)	130 (1999)
Community Kitchens	0 (1994)	7 (1996)
Community Gardens	550 (1978)	1,500 (1996)
Small-Scale Food Processors[b]	372 (1987)	436 (1997)
Community Supported Agriculture (CSAs)	53 (1993)	64 (1996)

[a] Wineries producing less than 50,000 gallons of wine per year.
[b] Food processors with 1-4 employees.
Source: Farming Alternatives Program, Cornell University, Ithaca, NY.

small, family-run wineries grew from 35 in 1981 to 130 in 1999. Community gardens grew from 550 in 1978 to 1,500 in 1996. Likewise, small scale processing, pick-your-own operations, and community kitchens represent dynamic parts of New York's food system.

Data from other sources help corroborate the New York findings. According to the Census of Agriculture, the number of farmers who sell food products directly to the public increased nation-wide from 86,432 in 1992 to 93,140 in 1997. Similarly, the U.S. Department of Agriculture reports that the number of farmers' markets increased from 1,755 in 1994 to 2,746 in 1998.

What Can Be Done?

A comprehensive civic agriculture, characterized by complete local or regional food self-sufficiency, is neither practical nor desirable in the United States or elsewhere. Undoubtedly there is some level of international and inter-regional trade that benefits both exporting and importing communities. However, the balance between local food self-sufficiency and global dependence in the United States has considerable potential to come back towards local production rather than continuing on its present trajectory.

Control of today's food system increasingly rests with powerful and highly concentrated economic interests, and not with local communities or even government. However, communities, organizations, individuals and local governments have many tools to use to effect change and move toward a more civic agriculture. These tools include:

- Local economic development efforts to support community-based food processing activities.
- Zoning codes that allocate land into areas of non-farm development, areas of natural preservation, and areas for agricultural production.
- Institutional food acquisition practices that integrate local food production directly into the community.
- Educational programs that use school and community gardens, summer internship programs, and community-farm days to increase agricultural literacy among local children and adults.

Turning toward a more civic agriculture is possible, and the seeds for the change are taking root throughout the United States. It represents an alternative for consumers who wish to support community businesses, preserve farmland, and substitute fresh, locally produced food for at least some of the products offered by the large, multinational food corporations. ■

For More Information

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