# U.S. Agribusiness and Agricultural Trends

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The American farmer earned the approval of Alexis de Tocqueville, the premier observer of democracy in America, by carrying the "businesslike qualities of Americans into agriculture." As a business, however, farming has proved perilous for the individual farmer. The dominant pattern in U.S. agriculture has been for production to exceed demand so that farming has undergone a prolonged process of attrition, forcing a great migration from the farm. The result has been a continuous growth in the average size of farms as part of a trend in the whole food industry toward concentration and integration. While growth in productive efficiency has been remarkable, the social costs incurred have been great.

The intractable, long-term trend in American agriculture, as one recent study of resource allocation and farming efficiency puts it, has been the "tendency to expand production to the point at which product prices fail to cover investment and expenditures in producing farm products" (*1*).

By this analysis, U.S. agriculture has been characterized by overcapitalization and overallocation of manpower. The outcome has been a relatively cheap food supply for the population at large. This boost to the general standard of living, however, has been subsidized by expensive government crop support and other aid programs and by low income for the farmers themselves.

In economists' terms, the farmer is locked into atomistic competition in which the individual producer has no influence on the price of what he sells. In addition he lacks adequate knowledge to adjust his production plans, and hence he has remained at the mercy of the market as well as of the weather. Government programs designed to protect the family farm against the worst effects of price fluctuations were established during the 1930's; but the competitive advantage of larger, more highly capitalized farming units has continued to increase, and the mortality rate of smaller units has remained high. In three decades the number of farms has steadily dropped, and the average size of farms has increased (*2*).

The farmer, whether a major or marginal operator, is part of a total agricultural system which has changed drastically in this century and continues to change at a rapid rate. Large corporations now dominate some sectors of this system, and the term "agribusiness" is used to denote large, industrial-type operations along the commercial food chain. Agribusiness has a growing band of critics who use the term pejoratively. A nonnormative definition in a recently released report on the changing structure of agribusiness, issued by the U.S. Chamber of Commerce, says agribusiness refers to "commercial farms, input industries (those which provide the farm machinery, pesticides, fertilizers, etc.) and marketing and processing firms which contribute to the total food sector." It is primarily the agribusiness trends which, along with market fluctuations, are determining the character of farm operations.

The term "corporate farming" summons up images of big business owning and cultivating limitless acreages. For a number of reasons, big corporations have, for the most part, avoided the production phase of agriculture and concentrated on providing inputs—machinery, fertilizers, pesticides, animal biologicals—and on outputs, the processing and marketing of food products.

The simple explanation is that the profit is not, in general, to be found in the production end of the business. A major deterrent to corporation farming is the price of prime agricultural land, which has doubled and even trebled in the past few years. Corporations are reluctant to tie up the necessary amounts of capital in land and machinery on which the record shows that the return on investment is likely to be low—perhaps 3 to 4 percent a year if things go reasonably well. Furthermore, farming lends itself poorly to centralized management. Decisions on when to prepare the soil, plant, cultivate, and harvest require training, experience, and a close knowledge of local conditions; and they cannot be made from corporate headquarters. Hired managers may not be disposed to make the exertions—the 18-hour day is a necessity in some circumstances on a farm—or to minimize costs as the owner-operator is. And a significant number of big production ventures by large corporations have ended in enormously costly failures (*3*).

Large-scale farming by corporations is by no means an inconsequential factor in food production, but such operations are concentrated in particular crops and regions. Feedlots—on which livestock are fattened, and often then slaughtered, and processed—and vegetable and fruit growing processing operations seem to lend themselves best to successful big-corporation efforts.

## Landholding and Labor Patterns Influenced by History

Historical circumstances that influence landholding and labor patterns appear to be a factor. It seems no accident that corporations are particularly active in California, Texas, and Florida. Large landholdings in California and the Southwest originated with Spanish land grants. In the South, large holdings can be traced to the plantation system and reclaimed land.

The extent of the incursion of big corporations into production is in dispute. Data from the last census indicate that big corporations are responsible for perhaps 3 percent of total production. Other estimates, taking into account the activities of corporations classified as nonfarm operations, put the total at 5 to 8 percent (*4*). While the total share of production is still modest, corporations dominate certain activities such as producing broilers, seeds, and vegetables for processing. The importance of corporations in the production of citrus fruits, feed cattle, turkeys, and eggs is growing.

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Corporations will venture into production to exploit new technology. The broiler industry, for instance, was developed and is dominated by industry. Some corporations have been attracted to farming by the prospect of later selling farm land profitably for other uses. In the Southwest, ranching and oil production have been combined, and a similar pattern is emerging in Wyoming and other northern plains states that have coal deposits suitable for strip-mining. In the Southeast, particularly, large tracts of marsh and coastal land have been reclaimed for agriculture. Typically, the aim is to create an integrated enterprise with feed grains grown to fatten hogs and cattle raised on the same lands. Such projects in North Carolina alone will cover hundreds of thousands of acres and are being developed by Japanese and Italian as well as American corporate owners.

The family farm, however, rather surprisingly remains the basic production unit in the system, although the term "family farm" must be carefully defined. About 16 percent of the farms in the United States account for some 70 percent of cash receipts. Therefore, it is fair to inquire what is meant by a farm. To be so categorized by government data-gatherers, the farm must yield $2500 a year in cash sales. Obviously a family with farm income at that level would need income from other sources to survive. And many farmers do rely on off-farm jobs for themselves, their wives, or children to supplement the farming income. Studies of farm income, conducted by land-grant institutions, showed that, around 1970, a farmer needed, on the average, sales of $20,000 a year or more over a long period to ensure earnings sufficient to cover costs. Data from the last census showed that only about 550,000 farms out of the total 2.7 million had more than $20,000 in sales. It was this roughly 20 percent of all farms, however, that produced about three-quarters of all food and fiber.

The optimal mix of land, capital, and labor for a profitable operation differs by crop and region. In the Corn Belt, one man, equipped with the proper machinery, can handle virtually all the work necessary to farm 600 to 800 acres of corn. He will need help from his family or one or two hired workers only at the busiest times. If the farmer fattens hogs or cattle in the same region, not so much land is required. Hogs, for example, can be profitably raised on 300 to 400 acres of land planted in corn or soybeans for feed. In the last few years, farmers with smaller acreages or poorer land could cover costs because of higher market prices, but downward trends in prices are squeezing such farmers.

In the Corn Belt, the typical ownership patterns are the father-son combination, the partnership, or the family corporation. These family corporations are often larger operations and are formed because they provide advantages in dealing with tax and inheritance problems. Of the approximately 1.2 percent of commercial farms that are incorporated in the United States, about 90 percent are family corporations.

Successful farms generally follow the trend toward specialization observable in large, corporate farms. The farm concentrates on one crop or one type of livestock and maximizes output by the use of specialized machinery and by developing a particular expertise.

Fig. 1. Settlers in 1887 in front of their sod home. Although transformed by modern agricultural technologies, the family farm remains the characteristic unit in the Corn Belt and Wheat Belt. [USDA photo]

Within one enterprise, for example, a father may concentrate on managing crops and his son, on livestock. Unless a farmer can attain an efficient-sized operation he is likely to fail. In dairy farming, which is now highly mechanized, a ratio of 40 cows per worker is regarded as economic. The old pattern of the farm with a herd of 18 or 20 milking cows is no longer viable.

For successful farmers, the problem of passing their farms on to the next generation has been compounded by the rise in land costs. A 600-acre farm in a prime agricultural area may now be valued at $1 million or more. Each new generation has to be refinanced, and the costs of inheritance taxes and settlement of an estate create a heavy financial burden for the heir to assume. It is even harder for someone starting from scratch to enter farming and build a successful operation.

Informed observers, nevertheless, tend to see present patterns persisting. In a recent article two Economic Research Service economists of the U.S. Department of Agriculture suggested the following (*5*):

> A continuation of present trends where a relatively few large farms will dominate the farm production sector appears the most likely scenario to develop. A few large farms will account for most of the farm output, but a large number of small farms will continue whose operators will use most of their labor and secure most of their income from off-farm sources. The present financial institutions financing farm production would be relegated to a lesser role than in today's market, but still would provide a large amount of borrowed funds. Equity financing through securities sold in capital markets would probably become an important source of funds.

A major expansion of corporation ownership, involving growth of a cadre of hired managers and workers and the development of a new rural social structure, was accounted less likely as was a return to dominance of the small family farm.

Perhaps more significant currently than the role of agribusiness in food production is the evolving relationship of corporations to individual farmers. Increasingly, farmers are making contracts with grain companies or food processors to take their crops at negotiated prices. This protects the farmer against a downward slide of the market after harvest and allows him to plan and manage his operations more effectively, but it also prevents his reaping the rewards when prices rise above the level in his contract.

Fig. 2. Modern farming equipment and silos. [Guy Kassal, Derby, Kansas]

In some sectors, the process of integration has gone much further. In the broiler industry, the farmer, typically, owns the land and buildings, while the corporation owns the chickens and provides inputs such as feed and pharmaceuticals and makes decisions that used to be the province of the poultryman. It is the broiler industry which is as close to applying the mass production techniques of industry as any sector of agriculture. And the corporations have developed field staffs expert at chicken raising and adept at management.

Other agribusinesses have expanded customer services to an extent that is markedly modifying the technology transfer process in agriculture. A new commercial chain is developing, closely linking the manufacturers of inputs with distributors, dealers, and farmers.

In recent years, farmers have shown a partiality for "one stop" service by a dealer who can sell and service machinery and supply fertilizer, pesticides, fuel, and animal biologicals according to the farmer's special needs. This trend has contributed to the decline of the small town in rural areas by putting individual tractor dealers and Main Street merchants out of business. The big dealer does more than operate an agricultural supermarket. He is likely, for example, to prescribe and mix fertilizer to meet a customer's needs and even apply it for the farmer. Dealers increasingly have become major credit sources for their customers, and have assumed functions traditionally provided by local banks. Often the dealer or distributor becomes a major owner and leaser of agricultural land.

Farmers have come to depend heavily on the suppliers for information and expertise, and large input manufacturers have moved to meet this demand by hiring and training field representatives to fill a role once exclusively that of the agricultural extension service agent. A recent report, *Agricultural Production Efficiency*, from the National Academy of Sciences (NAS) indicated that studies of the source of information used by farmers showed increasing reliance on commercial sources (*6*).

In many cases the county agent is no longer the sole source of information leading to technological innovation in farming, but rather often acts as an intermediary. Through their dealers and representatives, corporations now effectively mix information and sales pitches mostly by the means of farmers' meetings, which can range from church suppers to sophisticated seminars.

This revolution in American agriculture that has brought major advances in productive efficiency has not been viewed with unanimous approval. Residual reflexes from the 19th-century populist resentment of the banks, the railroads, and commodity speculators are now directed at agribusiness. But a new strain of Naderite and consumer-protection protest is gathering strength. In part the protest is directed at the "disenfranchisement" of the small

farmer and exploitation of migrant and other farm workers. The critics also charge that trends in agriculture created by an alliance between agribusiness and the land-grant establishment often work to the disadvantage of both the consumer and the small farmer.

The argument is made in extended form in the book *Hard Tomatoes, Hard Times*, published by the Agribusiness Accountability Project (*7*). The main theme of the critique is that crops these days are bred for machines not for the consumer and that the land-grant R & D establishment, at the expense of the taxpayer, has "developed a total mechanization system for agribusiness that has abandoned the independent farmer. . . ." The result has been a succession of changes for the worse in rural America. The agricultural research establishment has come under criticism in recent years from peer scientists who have deprecated the quality of research and of research leadership (*Science*, 27 April 1973).

Public sympathy for the cause of the family farm is almost instinctive in the United States, tracing back to Jefferson's eulogizing of the small landholder as the chief repository of virtue in the republic. The principal organized effort to advance the interests of the small operator is conducted through the cooperative movement and the National Farmers Organization (NFO). Begun as a protest movement in the 1950's, NFO evolved into a national membership organization providing alternative policies to those of the National Farm Bureau Federation, the largest of farmer organizations and said to be dominated by members from among the more prosperous sector of farming.

The NFO's major initiative has been to organize collective bargaining on crop sales to affect prices favorably for its members. It sponsors legislation intended to become a Family Farm Act, which would extend antitrust legislation to prohibit big nonfarm businesses from entering farming if their assets or sales were above certain levels.

The questions raised by structural changes in agriculture are complex and have received little effective attention when farm legislation has been debated. Nor does the subject appear to be getting serious attention now that it has been found necessary to enact "emergency" farm legislation.

Farm policy in the United States has been shaped by a contest and compromise between those who believe in allowing the free play of market forces to determine prices and those who favor government intervention to protect the farmer against disaster in the marketplace. Federal action has been guided by the USDA's ill-defined policy of seeking to ensure adequate food supplies at reasonable prices and a pragmatic aim of preventing the ruin of the majority of efficient farmers.

The years 1972 to 1974 were, by and large, boom years for U.S. farmers, and some observers believed that a basic shift in circumstances might permit farmers in this country to flourish at near full production in the future. As other articles in this section indicate, however, the conditions that produced the boom may be of short duration. Recent declines in crop prices suggest that the old pattern is reasserting itself, and, although bad weather here and abroad could reverse the decline, the familiar uncertainties of the marketplace appear to be reviving. Farm policy is once more being seriously debated in Washington—this time, whether fully recognized or not, with vital international as well as national implications.

Agriculture Secretary Earl L. Butz is a proponent of the free-market approach, and, in 1973, an Administration measure was passed replacing the established crop support and acreage restriction programs with a more flexible income support system. If the market price of basic crops fell below "target price" levels, the farmer is guaranteed payments to make up the difference.

The program was passed at a time when market prices were well above existing support levels. Now, prices have been falling and farm income levels declining, while the prices that the farmer pays for energy, farm machinery, and other production requirements are still rising. And the current congressional reflex is to legislate increases in target prices to compensate.

So far, the discussion in Washington has been conducted mainly along conventional lines, concentrating on the renewed shortfall between prices and costs. The experience of 1972 to 1974, which was highly unsettling to consumers at home and abroad and, ultimately, to farmers, seems to have had little impact. The question of creating a world food reserve as an adequate cushion against poor harvests has not been directly addressed, nor has the possibility of long-term changes in climatological pattern been taken into account. So, for American farmers, who are in an uncertain business, it appears to be business as usual.

### References


1. G. L. Johnson, in *The Overproduction Trap in U.S. Agriculture*, G. L. Johnson and C. L. Quance, Eds. (Johns Hopkins Press, Baltimore, 1972), p. 3.
2. Until about 1910, rural people—both farm and nonfarm—were in a majority in the United States. Except for the depression years of the 1930's, when there was a temporary reversal, there has been an out-migration from rural areas. The number of farms declined from about 6.4 million in 1920 to 3.2 million in 1964, to an estimated 2.8 million last year. The average land per farm has increased from 288 acres in 1959 to about 385 acres in 1974. By any measure, productivity has increased prodigiously. Although the increase is not uniform for all crops and regions and types of farms, it is fair to say that in one generation, with fewer acres under cultivation and the inputs of labor down a third, output has about doubled. The costs of increasing production have been high. For example, USDA figures show that production assets—mainly, values of land, machinery, and working capital—rose from an average of $27,400 per farm worker and $55,300 per farm in 1964 to $90,400 per worker and $148,600 per farm in 1974 [*Agricultural Statistics 1974* (U.S. Department of Agriculture, Washington, D.C., 1974), p. 429]. This chiefly explains the continuing, high casualty rate among farmers.
3. D. Cordtz, "Corporate farming: A tough row to hoe," *Fortune* (August 1972), p. 134.
4. *The Changing Structure of U.S. Agribusiness and Its Contributions to the National Economy*, U.S. Chamber of Commerce Publ. (1974).
5. A. G. Smith and K. R. Krause, *Agricultural Finance Rev.* **35**, 13 (October 1974).
6. *Agricultural Production Efficiency* (National Academy of Sciences, Washington, D.C., 1974), p. 78.
7. J. Hightower, *Hard Tomatoes, Hard Times* (Agribusiness Accountability Project, Washington, D.C., 1972).