MYTH: THE CURRENT MIDWEST CROP SYSTEM IS ECONOMICALLY SUSTAINABLE

Midwest agriculture has gone through dramatic changes over the past 30 years. The most noticeable has been the wide-scale adoption of two crops – corn and soybeans. Corn and soybeans complement each other well – soybeans replenish the nitrogen in the soil, providing the nutrients for a following year of corn. Government policies have encouraged the corn/soybean rotation. Since 1970 there has been a 13% increase in acreage planted to corn and soybeans in the 12-state Corn Belt.[1] In 1998, 28 Corn Belt counties had over 85% of planted acreage in corn and soybeans.[2] The US produces far more corn and soybeans then can be consumed domestically, and about 20% of our corn and 33% of our soybeans are exported.[3]

It might be assumed that the dominance of these two crops in the Midwest demonstrates their profitably for farmers. Unfortunately, that is not the case. The past 30 years has resulted in a tremendous loss of farms, declining populations in several rural agricultural communities, and a sharp increase in government payments to agriculture. It is a cropping system that is failing the Midwest. This fact sheet explores the economics of corn and soybean production.

Three fundamental pieces of economic data explain the plight of the corn-soybean farmer:

- ***Corn and soybean costs of production are increasing more than higher yields can compensate.***
- ***The real prices farmers receive for corn and soybeans are decreasing.***
- ***The system survives by increased government support payments to corn and soybean farmers, essentially subsidizing this failed system.***

Corn and Soybean Costs of Production are Increasing

Figures 1 and 2 show the total costs of production per acre for corn and soybeans from 1975 to 1999. Total production costs include both cash expenses (including inputs such as seed, fertilizers, pesticides and fuel) and economic costs (such as general farm overhead, taxes and insurance, capital replacement, operating capital and land). As expected, total production costs have trended upward. In 1975, the average total cost to produce an acre of corn and soybeans was $189 and $125, respectively. By 1999 the total production costs for corn and soybeans respectively increased to $322 and $265.[4]

The greatest increases in production costs have occurred in fertilizer, pesticide, energy and seed costs.[5] These expenses, incurred to maximize per acre productivity, have successfully tripled U.S. corn and soybean production over the last 30 years. However, because conventional corn and soybean farmers are dependent on a number of purchased inputs for their crop production – and these prices tend to increase as agricultural profits increase – farm income has suffered a slow decline.

Prices Paid for Corn and Soybeans Have Decreased

Just as with input costs, farmers are subject to the mercy of the market for prices paid for their crops. Over the last 25 years, prices for corn and soybeans have been highly variable due to supply and demand factors (See total Production Values for Figures 1 and 2). While production costs from 1975 to 1999 have respectively increased 200% and 170% for corn and soybeans, the total per acre production value has increased 140% and 170%. Corn farmers frequently produce corn at a net loss per acre. Most farmers can stay in business only with the assistance of government payments.

Government/Market Power Limit Farmer Options

A chronic oversupply of corn and soybeans is a prime factor behind low prices. Government programs create incentives for planting corn and soybeans instead of alternative crops or taking land out of production, which effectively keeps the price of these commodities artificially low. Furthermore, government and university research focuses on expanding yields of a select number of crops rather than research into alternative crops and practices.

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Figure 1

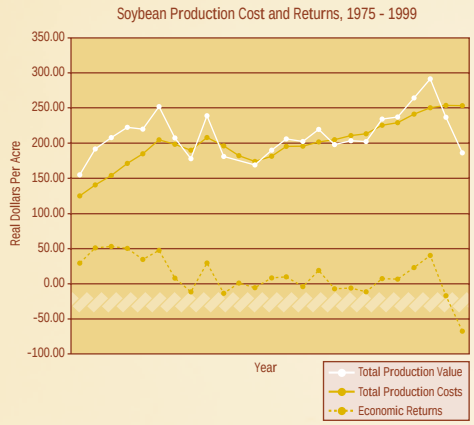


Figure 2

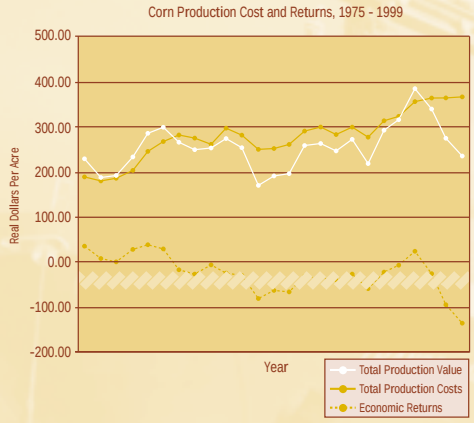
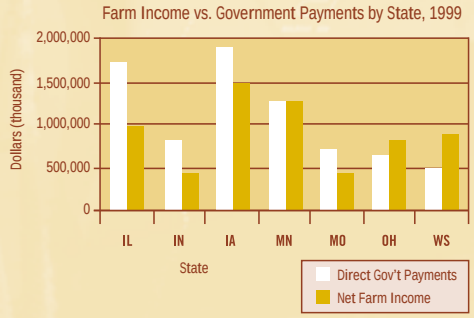


Figure 3



1 USDA Economic Research Service (ERS)
2 Personal communication with Porter, Corn-soybean producers looking for more crop diversity. U of MN Extension Service Sustainable Agriculture Newsletter. Volume 7, Issue 12. December 1999.
3,4 USDA (ERS)
5 USDA. ERS. Agricultural Resources and Environmental Indicators.
6 Jean D. Kinsey. 1999. The Big Shift from a Food Supply Chain to a Food Supply Demand Chain. Minnesota Agricultural Economics. No. 698
7 M. Muller 2000. Mississippi River Navigation: Helping the Midwest Compete with South American Soybeans.
8 Testimony of C. Robert Taylor, Professor of Agriculture and Public Policy at Auburn University, U.S. Senate Agriculture Committee. January 1999.
9 A.V. Krebs. The Agribusiness Examiner. Issue #105. Feb. 23, 2001. Net Farm Income Could Drop $9 Billion in the Next 2 Years.
10 Agricultural Outlook. April 20001, ERS-AO-280.
11 Personal communication with Porter…(See 2).

With prices adjusted for inflation, corn has never returned to prices that existed in the early 1970's.[6] Soybean prices have suffered a similar demise.[7]

An additional factor contributing to low prices is the expanded market power of agribusiness. Regional specialization in specific crops has increased farmer reliance on available storage, transportation, and marketing infrastructure. These factors create significant barriers to the development of markets for alternative crops. Market power has continually shifted away from farmers to the processors and marketers. This phenomenon is demonstrated by the shift in the distribution of the food dollar. Dr. C. Robert Taylor of Auburn University recently told Congress, "Since 1984, the real price of a market basket of food has increased by 2.8 percent, while the farm value of that food has fallen by 35.7 percent."[8]

Government Payments Lock In Broken System

Direct government payments to farmers rose from under $8 billion in 1997 to a record $22 billion in 2000, much of it going to grain farms in the Midwest. For five out of seven states in the Mississippi River Basin, direct government payments accounted for over half of all farm income for 1999 (Figure 3). Many of the subsidies are based on production – the more produced, the larger the government payment to the farmer. Federal farm subsidies, although at times a necessary stopgap measure, perpetuate a cycle of overproduction, further flooding the market and lowering prices.[9]

On top of that, farm operations with annual sales above $100,000, which account for only 16% of the total farms, receive nearly three-fourths of farm program payments.[10] This large-farm bias partly explains why, despite such high levels of government support, rural farming communities continue to decline. In the 12-state Corn Belt region, only four counties with over 80% of their total land in corn or soybeans increased in population between 1980 and 1990. Fifty-one counties lost population.[11]

Who Profits?

Overproduction of corn and soybeans provides a windfall for the buyers and processors of these crops. They are able to buy these products at prices below the cost of production and rarely have to pass these savings onto the consumer. The record profits many agricultural processors have enjoyed in recent years – in spite of the economic crisis farmers are facing – indicates that the existing corn/soybean system benefits agribusiness, not farmers.

Another Direction for Farmers

U.S. farm policy has created an economically unsustainable system. Several policy changes would do much to improve farm income including: more payments for conservation practices, higher non-recourse loan rates, greater investment in farm-based renewable energy production, and the construction of more value-added processing facilities. For more information about farm policy options, go to: www.agobservatory.org.

For more information on IATP's Agriculture Myths series, go to: www.agobservatory.org
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