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Corn

Background for 1990 Farm Legislation

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Abstract

Corn is the leading U.S. crop, both in volume and in value. In 1987, farmers planted about 65 million acres and harvested 7.1 billion bushels. The farm value of production totaled about $13 billion, about 36 percent of farm receipts from crops. Rising corn yields and market prices strengthened corn farmers' cash flow positions in the late 1970's; however, per bushel real returns above cash expenses declined in recent years. Lower loan rates, the issuance and exchange of generic certificates, and devaluation of the U.S. dollar relative to the mid-1980's all contributed to the growth of U.S. corn exports in recent years. Government program costs for corn averaged more than $4.6 billion a year during the 1984-88 crop years, or 30 percent of the $15.7 billion corn crop value. Higher feed grain prices stemming from the programs comprise an additional cost to the livestock sector and consumers.

Keywords: corn, domestic use, farm programs, farm returns, prices, program effects, world markets

Foreword

Congress will soon consider new farm legislation to replace the expiring Food Security Act of 1985. In preparation for these deliberations, the Department of Agriculture and many groups throughout the Nation are studying preceding legislation to see what lessons can be learned that are applicable to the 1990's. This report updates **Corn: Background for 1985 Farm Legislation** (AIB-471) by William Lin, Mack Leath, and Philip Paarlberg. It is one of a series of updated and new Economic Research Service background papers for farm legislation discussions. These reports summarize in a nontechnical form the experience with various farm programs and the key characteristics of the commodities and the farm industries which produce them. For more information, see the Additional Readings listed at the end of the text.

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Contents

Summary

Although corn yields have fluctuated, there is a definite upward trend of about 2 bushels per acre per year. Corn use trended upward during the past two decades, reaching a record 7.7 billion bushels in 1987/88. Livestock and poultry feeding is the predominant domestic use. Food and industrial use of corn, although a relatively small proportion of total domestic use, has been steadily increasing, mainly due to expanding markets for corn sweeteners. Production of ethanol made from corn has been expanding and its growth may continue if Federal and State tax incentives continue.

Corn imports by Japan, non-EC Western Europe, developing countries, and centrally planned nations will likely be increasingly important. The growth in world corn trade in the 1970's and 1980's came largely from expanded imports by developing and centrally planned countries. However, their import growth in the 1990's is in question.

High corn yields and substantial deficiency payments in recent years have strengthened corn farmers' cash income positions. Their returns above cash expenses increased from $0.37 per bushel in 1977/78 to $1.21 in 1979/80 in nominal terms, but fell to $0.54 per bushel in 1986/87. Most of that was due to program payments. Large commercial farms growing corn are probably more cost-efficient than are small farms, although additional gains in efficiency are minimal once a farm reaches 500-1,000 acres of cropland.

Government corn programs to support prices, enhance farm income, and periodically reduce surplus stocks have a 50-year history. Prior to 1961, the response to low prices and surplus stocks centered on allotments and price supports based on parity. Then the approach shifted to voluntary programs that featured direct payments and acreage diversion. Programs in the 1970's switched to market orientation with emphasis on farmer control over the production mix. Price and income supports were moved toward a safety net concept, and authority was maintained for voluntary production control through acreage reduction.

Corn farmers benefit from participating in corn programs directly through supported prices and direct payments and indirectly through higher market prices and land value capitalization induced by the higher prices. U.S. corn farmers have received program payments since 1961. In recent years, the payments have fluctuated from about $210 million in 1980/81 to $7,737 million in deficiency, diversion, and storage payments in 1987/88. Program payments averaged more than 91 percent of farm returns above cash expenses during 1983-88.

Higher corn prices resulting from the programs, however, are an indirect cost to livestock and poultry producers and consumers. For example, the 1978 corn program was found to have increased retail prices of beef and pork by nearly 1 percent each. The program also affected retail prices of poultry, milk, and eggs.

However, the relatively narrow farm-to-retail price spreads for beef, pork, and other livestock products suggest that more stable corn prices mean more stable retail prices for meat, poultry, milk, and eggs.

The $5.7 billion net Commodity Credit Corporation (CCC) expenditures (including payments and loan operation outlays) for corn alone in crop year 1983 accounted for 30 percent of total CCC outlays for all crops. At this level, net program expenditures amounted to about $26,000 per program participant, or nearly 70 cents per bushel of corn produced. During the 1983-88 crop years, program costs averaged more than $4.6 billion a year or 30 percent of the average $15.6 billion corn crop value.