ECONOMIC IMPACT OF FARM PROGRAMS SINCE WORLD WAR II

A. On the Corn Belt

J. Carroll Bottum, Assistant Head
Department of Agricultural Economics
Purdue University

In appraising the impact of government programs upon Corn Belt agriculture, I will attempt to compare the situation under government programs with what appears would have been the situation in the absence of such programs. I shall confine my statements largely to the impact of programs involving the major crops and land retirement. I am assuming the federal milk orders have not been restrictive in the movement of milk out of or into the Corn Belt.

United States wheat prices have been substantially higher under the wheat price support program than they would have been without any program. To obtain these higher prices, wheat producers have had to accept acreage limitations and look for other uses for their diverted wheat land. In 1960, 53 million acres of wheat were harvested as compared with an average of 74 million acres during the three-year period, 1947-49. As wheat acreage was decreased, by government programs, grain sorghum, soybean, and barley acreages increased.

Cotton prices have averaged higher as a result of government programs; however, like wheat producers, cotton growers have had to reduce their acreages in cotton. Cotton acreage harvested dropped from an average of 24 million acres during 1947-49 to 15.5 million acres in 1960. As the cotton acreage dropped, the acreage in sorghums, soybeans, hay, and pasture rose.

The U. S. acreage in grain sorghum and barley rose from 17.5 million in 1947-49 to 30.6 million acres during 1958-60. This has in turn meant more feed. It has meant an increase in these two crops equivalent to about 450 million bushels of corn annually during the 1958-60 period.

Thus, approximately 30 million acres have been shifted out of cotton and wheat, and a large proportion of the acreage has gone into feed grains and soybeans, which are major crops of the Corn Belt. What would have happened in the cotton and wheat areas in the absence of any government program? With no government program, wheat prices would probably have fallen to the world price level or to the domestic feed price level. Cotton prices would likely have fallen to

near world price levels. With lower prices for these export crops, some land from these crops would have been shifted into feed grains and soybeans. Some wheat would have been used for feed. Some cropland in these areas would have been shifted out of production. To state quantitatively just what would have happened to cotton and wheat exports and to the amount of cropland retired would involve a number of assumptions. Suffice it to say the Corn Belt would not have escaped wholly the cotton and wheat diverted acres problem.

Nevertheless, the Corn Belt would have escaped the situation in which cotton and wheat are supported on many farms which also produce feed crops. This provides a complementary income effect, which places the wheat and cotton farms in a relatively strong competitive position in feed grain production. Our land retirement studies indicate that in the absence of government programs, much of the cropland reduction would have taken place in the cotton and wheat areas. This adjustment has been prevented or delayed by the cotton and wheat programs.

These programs in the cotton and wheat areas, coupled with the 1960 feed grain program, which retires land, tend to bring about *acreage shifts* in crop production in the cotton and wheat areas and *land retirement* in the Corn Belt. The inclusion of wheat and barley in the 1961 bill will result in the retirement of some land in the wheat areas, but the major share of the retirement will still be in the Corn Belt.

The 28.5 million acres retired by the conservation reserve program tend to be located more heavily outside of the Corn Belt and also tend to include the less productive cropland.

Thus, while the farm programs may have had the over-all effect of increasing the gross income to agriculture, including income in the Corn Belt, they have put the Corn Belt in a relatively less strategic position on two scores:

1. They have placed the producers in the cotton and wheat areas in a stronger competitive position in the production of feed grains relative to the Corn Belt than they would have been without the cotton and wheat support programs.

2. The general policy of shifting acres in the cotton and wheat areas into feed crops and soybeans, and then to heavily concentrate the land taken out of production in the Corn Belt raises some policy issues for the Corn Belt producers and some questions of national policy.

The situation is summed up by a question asked by a foreign visitor who had traveled rather extensively in the United States, who said,

"Why do you take out of production some of your most productive land and farm the less productive land?" While we might argue that the adjustment should not fall harder on one area than on another, even though it might be more economically efficient to take out the less productive land, it seems to me a little difficult to support a policy which tends to concentrate the land retired in one of the most productive regions.

B. On the Great Plains

S. Avery Bice, Associate Director
Agricultural Extension Service
Colorado State University

Of all elements of programs that together represent policy (built piecemeal and certainly not mutually consistent in terms of objectives), I feel that the following have had the greatest effect on the interregional competitive position of Plains agriculture: Past acreage allotments and price supports on wheat; the conservation reserve; the 1961-62 wheat program; the feed grain program, 1961 and 1962; federal programs influencing irrigation development; credit and grant programs and crop insurance, including particularly those implemented during drought emergencies; the acreage reserve program; and the Great Plains Conservation program. On balance, these programs have bolstered and stabilized farm income, and have probably kept marginal producers operating longer than would otherwise have been possible. At the same time farm operators with a better than average complement of resources and those of better than average managerial ability have often been able to use government programs to increase their individual competitive status.

With respect to wheat, the lack of clear-cut quality differentiation and the system of allotments has disadvantaged the region in terms of meeting free market product demand as distinguished from producing to supply the government "market."

Standard government credit programs have helped to establish a better adapted and more stable agriculture in the region. Coupled with emergency measures applicable during drought periods credit programs appear to have had an important effect in terms of competitive staying power.

Irrigation development has provided a growing segment of Plains farmers with the same (and in some cases perhaps superior) advantages of stability, ability to capitalize on modern technology, and diversification possibilities provided by added alternative crop and livestock com-

binations such as those in the Corn Belt. A significant proportion of the total crop production and livestock feeding operations in the Plains economy was made possible by irrigation developments.

All in all, I would conclude that the combined programs that constitute government farm policy have resulted in some net competitive advantage to the Plains area—primarily because they have modified the single most important problem in the area, high-risk production conditions. However, it is also fair to conclude: (1) that the degree of competitive effect is fairly modest and (2) that most of the trends in the agriculture of the area arise more from the general forces of economic change than from government farm policy.

C. On the South

C. E. Bishop, Head
Department of Agricultural Economics
North Carolina State College

The South is a marginal agricultural area in the sense that the region is affected more sharply than most other regions by agricultural contractions and expansions. Acreage of cropland is decreasing rapidly in the South. Farm labor is shifting out of agriculture in large numbers, and farm output is expanding very slowly.

The South has relatively low investments in schools and other social overhead, and many of the people who migrate from the South are poorly prepared for nonfarm work. Capital transfers and regional conflicts are involved in providing training for the people who migrate from farms in the South to nonfarm areas outside the South.

Current farm programs should be appraised relative to their effects in closing the income gap. First, we should note that government payments to farmers have increased the gap in incomes between the South and other major regions. Between 1949 and 1959, government payments per farm in the South increased threefold. In contrast, payments per farm in the North Central region in 1960 were 4.7 times payments in 1949. Government payments per farm in the South now are only three-fifths those of the rest of the nation. These payments are widening the gap in incomes among regions.

Cotton is often looked upon as a commodity on which the government has spent large amounts to control surpluses through public programs. The South has been affected directly by the cotton control program. The price of cotton at the farm level has increased, and cotton acreage which would have moved to other areas has remained in the

Southeast. But in spite of the control programs, cotton production has continued to flow from the South to the West. Average annual production outside the South has increased 2,046,000 bales per year since 1940. Meantime, production in the Southeast and the Appalachian region has decreased 650,000 bales per year. Much of the increased production in the West has resulted from public expenditures for reclamation. Tolley's analysis suggests that "the main effects of western reclamation have been in the South, where perhaps 480 million dollars worth of production has been displaced . . . one farm worker for every 20 remaining in agriculture has been displaced by western reclamation."[1]

The effects in the South of feed grain programs have been largely indirect. Farmers in the South have not participated in price-support loan programs of these commodities to a great extent (Table 1). The major effects of these programs have, therefore, had to come from an increase in market prices and expansion of production. Table 2 shows that, except for grain sorghums, the South contributed only a small part of the increase in U. S. wheat and feed grain production from 1940-42 to 1958-60.

TABLE 1. NUMBER OF PRICE-SUPPORT LOANS AS A PERCENT OF FARMS REPORTING ACREAGE HARVESTED, BY COMMODITY, 1959 CROP

Region	Corn	Grain Sorghum	Soybeans for Grain	Winter Wheat
South	0.39	18.10[3]	1.78[6]	12.71[9]
Northeast	0.48[1]	—	0.24[7]	2.84[1]
Corn Belt	23.85	7.34	13.55	6.25
Great Plains	41.37[2]	30.55[4]	9.08[8]	6.46[10]
Pacific	5.92	0.36[5]	—	53.29
Total	13.64	22.46	10.94	26.09

[1] Does not include Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. [2] Does not include Arizona, Montana, Nevada, New Mexico. [3] Does not include Georgia, Louisiana, South Carolina, Virginia. [4] Does not include North Dakota, Wyoming. [5] Does not include Washington. [6] Does not include Florida, Texas, West Virginia. [7] Does not include Maryland. [8] Does not include New Mexico. [9] Does not include Florida, Louisiana. [10] Does not include Nevada.

SOURCE: *Congressional Record,* July 10, 1961, pp. A5131-A5140, from Honorable Lindley Beckworth, Member of Congress, Texas.

The South clearly is a marginal agricultural area at the present time. It eventually feels much of the shock of changes in the agriculture of other regions. It has been forced into this position by: (1) a technologically superior agriculture in other regions and public income transfers to those regions to encourage innovation, (2) limitations on

[1] G. S. Tolley, "Reclamation's Influence on the Rest of Agriculture," *Land Economics,* XXXV:2 (May 1959), p. 180.

TABLE 2. CHANGE IN FARM OUTPUT BY REGIONS, 1940-42 TO 1958-60

Region	Corn	Oats	Barley	Sorghum Grain	Wheat	Soybeans
			Thousands of Bushels			
South	— 17,768	— 8,844	12,996	247,205	89,334	112,824
Northeast	44,684	1,803	3,187	—	— 2,925	8,483
Corn Belt	1,047,832	—20,472	—46,915	34,264	72,572	293,169
Great Plains	202,302	—14,348	42,590	215,249	228,503	18,490
Pacific	15,083	— 868	60,509	11,376	21,129	—
United States	1,292,133	—42,729	72,367	508,094	408,613	432,966
Percent of increase coming from South	0	0	.180	.487	.219	.260

SOURCE: "Changes in Farm Production and Efficiency: A Summary Report," Stat. Bul. 233, ERS, USDA, July 1961; D. D. Durost, "Index Numbers of Agricultural Production by Regions, 1939-58," Stat. Bul. 273, ARS, USDA, December 1960.

capital available for adjustments in farming in the South, (3) a strong agrarian fundamentalism in the South, (4) expansion of wheat as encouraged by government during World War II and subsequent adjustments which have increased livestock production in other areas that might have occurred in the South, and (5) extensive reclamation of land in the West largely through public expenditures. Without significant technological break-throughs which improve the competitive position of the South and public policies which are more favorable to agricultural adjustment in the region, the South is destined to remain a marginal agricultural area. This is especially true of the Southeast.

D. On the Pacific Coast

Arthur Cagle
Extension Farm Management Specialist
Washington State University

One current major consideration in the West is the effect the feed grain program will have on the producers of pork, eggs, and grain fed beef.

In the Northwest our main feed grain is barley. We produce some corn but less than we use. Reduced corn production creates a demand for more shipped-in corn. The railroad freight on corn from Sioux City, Iowa to Othello, Washington in the east central part of the state is 97 cents per hundredweight. Warehouse margins for handling at the Washington end are estimated at 15 cents per hundredweight. Thus, the cost of moving corn from the Iowa elevator to the Washington feeder is about $1.12 per hundredweight or 63 cents per bushel.

Corn production in Washington this year is down 24 percent from last year, due largely to the feed grain program. Barley production is up 15 percent. But the farmers who produce barley are not the ones who use it. Producers are holding and taking out price-support loans because of the $5.83 per ton increase in the support price. The difference between Western corn prices and U. S. corn prices will probably increase in the direction of the 63 cents a bushel differential for moving corn into the state.

Hog-feed ratios during recent years have been such as to make Washington producers barely competitive with those of the North Central states. This fine competitive balance has been possible only because pork prices are higher in Washington than in the North Central states (Washington being a deficit area) and because barley prices, generally, have been comparatively lower than contemplated under the feed grain program.

The crux of the problem, therefore, lies in the possibility that feed costs may remain the same or be forced downward in the areas where CCC stocks of corn are stored, at the very time when prices of feed grains are being increased in the state of Washington.

This could put Midwest feeders in a preferred position. Most of the surplus corn stocks are in that area. Depending on the government's policy, corn could be made available at comparatively low prices. *If* corn is made available only from present storage locations, no benefit would accrue to Washington livestock producers because of freight costs from Midwest storage to Washington.

If CCC stocks of corn and sorghum were made available at Washington coastal points, where the main terminal elevators are located, and prices are competitive with stock releases in other parts of the nation, the present competitive position of western Washington's dairy and poultry producers could be maintained. The $9 to $12 per ton freight and handling costs between coast terminals and interior points would place the cattle and hog feeders in an unfavorable position, unless CCC stocks were also made available at eastern Washington points.

Some other conflicts are:

1. Some farmers and grain elevator companies objected to soft white wheat of the Northwest being included in the 10 percent acreage reduction in view of relatively no surplus of this type of wheat. Of course, in the absence of the P. L. 480 program, surpluses of soft white wheat would probably accumulate.

2. The Northwest miners objected to recent barters of U. S.

wheat for lead and zinc from other countries. They claim this will add to what they consider an excessive stock pile of these metals and tend to soften prices. They say the barter is harmful to the Northwest because hard red wheat from other areas of the United States is to be used for the barter. Currently the miners appear to be pacified with the hope of a 16.5 million dollar lead and zinc subsidy.

3. Most of our wheat farmers prefer a program including the often proposed two-price system for wheat. This system would cause a conflict between regions. I understand that it is opposed by the corn farmers as they do not want wheat in excess of human use to sell at feed prices.

E. On the Northeast

Silas B. Weeks
Extension Economist in Farm Management
University of New Hampshire

The livestock and crop products in which the Northeast is an important contributor largely have not been included in any direct action federal programs. In addition, because of the relatively small share of the total U. S. output of all commodities coming from the Northeast, we can assume that policy determinations at the national level have been made without regard to the Northeast. The Northeast is not the proverbial tail that wags the dog but, in fact, is wagged by the dog. Almost completely, then, the impact of more important federal programs on the Northeast is indirect and in most cases the Northeast's reactions are defensive.

PRICE-SUPPORT PROGRAMS. The direct impact of these programs in recent years has been almost completely negligible except for some strengthening of Class II prices in the blend price of milk and some effect on tobacco and potatoes.

In the Northeast, one of the more vocal and continual battles and complaints is in regard to "high supports" on grain which result in high feed prices to livestock producers, particularly poultry producers. The general argument is that livestock product prices are not related to feed grain prices and that high feed grain prices, therefore, narrow profit margins of producers, especially of poultry, where as much as 80 percent of cash costs may consist of feed grains. Some argue conversely. Some estimates show that grain prices could be as much as 50 percent lower without the support and storage programs. Under such conditions, many Midwest and Southern feed grain producers would probably give serious consideration to marketing their

grain through poultry and dairy animals. Any increase in supplies of these products nationally would not only increase competition outside of the Northeast but would also hurt price due to the well-known inelasticity of demand for both of these products.

It is also important to point out that the higher the feed grain price, the smaller the interregional price advantage in the grain producing area. For example, if transportation cost to the East Coast for feed concentrates is $10 a ton, then the East Coast's disadvantage is to the extent of 10 percent on $100 grain versus, for example, 20 percent on $50 grain. Transport costs remain an absolute amount of total price.

Northeast dairymen, of course, have some protection on grain costs because of built-in adjustors in certain pricing formulas used for fluid milk. Also, short-run changes in grain prices can result in immediate hardships or immediate advantage, especially to poultry producers. It seems entirely possible that the stability given grain prices through support and storage programs have been an added blessing to the Northeast.

MARKETING ORDERS AND AGREEMENTS. The direct impact of this type of action has been important in the Northeast in adding to both stability of income and output of dairy products. While milk marketing agreements are by no means limited to the Northeast, nevertheless many producers, especially Midwestern dairymen, feel that such agreements in the Northeast have preserved a highly preferred market for a select few at their expense. Undoubtedly health laws have erected some artificial barriers, but these have been state regulations rather than federal orders. Moreover, a serious drive to test their legality might cause many of them to be ruled illegal. The differential in milk prices would, in fact, seem to be largely explained by transportation costs rather than market orders. Market orders for milk and perhaps some other products appear to contribute much toward stabilizing and giving order to markets, but probably basically will not contribute either to increases or decreases in interregional competition insofar as the Northeast is concerned. Frankly, we are much more interested in major technological break-throughs.

DISPOSAL PROGRAMS—DOMESTIC AND EXPORT. To the extent that manufactured dairy products and some poultry have been involved, these programs have had a generally favorable effect.

OTHER DIRECT ACTION PROGRAMS SUCH AS ASC, SCS, FHA, ETC. Our assessment is that these programs were designed essentially to solve problems in areas other than the Northeast. Hence, in many cases they have been less than adequately adapted to Northeast

problems and consequently have been less effective than if they had been specifically designed for the region.

Probably the indirect impact of these programs has been to increase interregional competition for the Northeast. The marginal rates of return from the application of practices under national programs are probably higher for good land resources than for poor land resources. The Northeast probably has a higher share of poor land resources than competitive areas.

Federal farm credit policies have probably also increased competition for the Northeast. Generally speaking, the products which are of major importance to the Northeast have been produced on the well-organized larger sized farms in the region. Most federal credit provisions have been geared to the assistance of smaller scale producers.

THE SOIL BANK. While the Soil Bank has had only a very minimal impact on output in the Northeast, it has unquestionably eased needed adjustments out of agriculture for submarginal land and farmers. A minor aspect is that it may shortly have a positive effect on the supply, and hence an adverse impact on price of Christmas trees, a crop of some importance in New Hampshire.

With a very small amount of tillable land at our disposal and the very limited amount converted to reserve use, we suspect that other regions put proportionately more of their resources in the reserve than the Northeast. Hence, we may have some minor advantage in this program.

In summary, the Northeast is a minor producer of feed grains and a relatively major producer of livestock products, fruits, and vegetables. Major national farm policies to date have been designed largely for products grown outside of the Northeast and, hence, their impact on the Northeast has been largely indirect.

PART III

Marketing Agreements and Orders