

IMPACTS OF THE CONSERVATION RESERVE

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IMPACTS OF THE CONSERVATION RESERVE

EXECUTIVE SUMMARY

The Conservation Reserve (CR) program was established in the 1985 farm bill to remove highly erodible cropland from intensive crop production and convert it to more sustainable uses. Under the farm bill, up to 45 million acres are to be entered into the CR by 1990. This study examines the economic impacts of this program.

By April 1987, 19.1 million acres had entered the reserve in four sign-ups. Erosion on this land is estimated to have declined from an average of over 27 tons per acre per year to only 2 tons per acre per year; substantially greater erosion reduction than that achieved by annual acreage set-aside programs.

More than two-fifths of the land which has entered the CR is wheat land. Nearly half had been planted to feed grains, and most of the remainder was in cotton. Reserve land generally is of lower than average productivity. Rental costs of reserve land averaged \$49 per acre. The land which entered into the reserve in 1986 would have produced 180 million bushels of wheat, 470 million bushels of feed grains and 560,000 bales of cotton per year.

By reducing surplus production, the CR raises commodity prices. By 1990, wheat prices are projected to be 21 cents per bushel higher than they would have been without the reserve; corn prices 12 cents per bushel higher; and cotton prices 5 cents per pound higher. Higher prices, together with the reduction in acreage eligible for program benefits, will reduce government outlays on farm price and income support programs by an estimated \$8.8 billion in the 1986-90 period. Government rental payments and cost sharing for

establishing cover on reserve land would amount to \$8.2 billion in the same period, resulting in a net budget savings of \$600 million over 5 years. As the CR is expanded, its budgetary benefit will increase, with annual net savings of \$700 million by 1990. Once the CR reaches the maximum size, cost-share payments will not be required and budget savings will increase.

Annual Impact of Conservation Reserve

Item	Crop Year					1986-90 Total
	1986/87	1987/88	1988/89	1989/90	1990/91	
CR Program Acreage (mil acres)	3.5	17.1	25.0	35.0	45.0	
Net Government Costs (billion dollars)	+0.14	+0.48	-0.20	-0.30	-0.70	-0.58
Net Farm Income (billion dollars)	-0.02	+0.16	+0.42	+0.78	+0.99	+2.33

Source: EPI.

Farm income will be higher due to the CR. Higher prices and lower production expenses outweigh the reduction in sales volume and government payments to farmers. Net farm income will be increased \$2.3 billion in 1986-90; \$500 million for wheat, \$1.4 billion for feed grains, and \$400 million for cotton producers. By 1990, annual net farm income will be \$1 billion higher because of the reserve.

If the reserve were expanded to 60 million acres by 1990, government costs would be \$1.2 billion lower than under current policy for the 1988 through 1990 crops. Farm income would be \$600 million higher, with most of this increase in 1990.

**Annual Impact of 60 Million Acre Conservation Reserve
(Relative to Current Policy)**

Item	Crop Year					1986-90 Total
	1986/87	1987/88	1988/89	1989/90	1990/91	
CR Program Acreage (mil acres)	3.5	17.1	35.0	50.0	60.0	
Net Government Costs (billion dollars)	0	0	+0.1	-0.5	-0.8	-1.2
Net Farm Income (billion dollars)	0	0	-0.1	+0.1	+0.6	+0.6

Source: EPI.

In summary, the CR program will reduce farm program costs and add significantly to farm income. The primary purpose and benefit of the program, however, is its contribution to reduced soil erosion on highly erodible cropland. By 1990, the CR program will save 1.1 billion tons of soil per year from erosion if the recent performance of the program is continued.

IMPACTS OF THE CONSERVATION RESERVE

BACKGROUND

The Conservation Reserve program (CR) is designed to reduce both soil erosion and surplus commodity production in the United States. First established by the Food Security Act of 1985, the CR program will convert between 40 and 45 million acres of highly erodible cropland to less intensive uses by 1990.

The erosion potential of cropland can be defined objectively in one of several ways. It depends on soil characteristics, slope, annual rainfall, and crop cover. Most of the nation's 421 million acres of cropland is not now at risk to erosion damage that is likely to significantly reduce its production potential. However, a relatively small share--about 83 million acres--is being cropped intensively and is losing topsoil at rates that cannot be sustained. The protection of this land is the primary purpose of the CR program.

A parallel purpose of the program is to reduce surplus grain and fiber production in order to help balance the supply and use of these crops and to reduce the cost of the federal commodity programs.

The Conservation Reserve--Impacts in 1986

By April 1987, 19.1 million acres had entered the CR program in four sign-ups. Annual erosion on reserve land is estimated by USDA to have been reduced by an average 25 tons per acre, from 27.3 tons per acre before entering the reserve to 1.9 tons per acre after.^{1 2} This soil saving is far

¹ Soil Conservation Service estimates for the first three sign-ups.

² Soil loss in excess of 5 tons per acre per year is generally greater than the "tolerance" (or "T") level; i.e., greater than the rate at which new soil is formed. Erosion rates in excess of T indicate a use pattern which is unsustainable in the long term.

larger than that achieved by annual acreage set-aside and diversion programs. For example, the large Payment-in-Kind and acreage reduction program in 1983 reduced erosion on idled acreage from 7.6 to 5.8 tons per acre, an average reduction of only 1.8 tons per acre.³

The CR program is already beginning to have significant impacts on commodity production, although the effect will be much larger in later years as additional acreage is entered. About 43 percent of the program's area, over 8 million acres, is wheat land (Table 1). Nearly half was planted to feed grains, and most of the remainder was in cotton. Only very small amounts have come from rice, tobacco, peanuts, or other crops.

Table 1. Conservation Reserve Acreage by Commodity, First Four Sign-Ups

Commodity:	Acres Accepted 1/ (Estimated)	Base Reduction 2/	Base Reduction 3/ Acres Accepted	Average Yield 3/ (bu/acre)	Average Rental Rate 4/ (\$/acre)	Rental Cost 5/ Per Unit Base Reduction (\$/bu)
Wheat	8,156,263	5,429,406	66.6	27	45.20	2.44
Corn	4,109,135	2,510,959	61.1	91	63.60 5/	1.13 5/
Sorghum	1,989,325	1,432,337	72.0	41	45.30	1.56
Barley	1,961,512	1,323,299	67.5	39	42.90	1.67
Oats	986,938	578,099	58.6	48	49.80	1.77
Cotton	984,934	789,418	80.2	303 6/	39.30	0.16 7/
Other	889,601	6,207	0.1	NA	NA	NA
Total	19,077,708	12,069,725	63.3		48.70	

1/ Data on CRP acreage by commodity are based on specification by CRP participants of which crop base they wish to be affected by the reserve contract. No data are available on planting history of CRP acreage per se.

2/ For an individual reserve contract, the amount of base reduction is determined by multiplying the reserve acreage by the ratio of the farm's total base acreage to the amount of cropland on the farm.

3/ Based on program yield of farms entering land into reserve.

4/ Based on USDA data on rental costs by crop and estimated acreage by crop.

5/ Excludes special \$2.00 per bushel payment for 1987.

6/ lb/acre.

7/ \$/lb.

NA = Not available

Source: USDA.

³ D. Colacicco, A. Barbarika, Jr., L. Langner, Conservation Benefits of the USDA's 1983 Payment-in-Kind and Acreage Reduction Programs, Economic Research Service, USDA, Staff Report No. AGES860908, January 1987, p. 9.

The CR is a voluntary program. Landowners bid for CR rental payments and, in return, agree to establish protective cover which cannot be grazed or harvested. On the average, eligible land has low productivity with program yields ranging from an average of about one-half the national average for cotton to four-fifths for wheat and corn.⁴ As a result, farmers have been willing to enter land into the CR for annual rental rates below those that would be required to divert more productive land.

The total amount of reduction in the amount of land eligible for commodity program benefits (base area) due to the CR program so far is 12.1 million acres, 63 percent of the amount of land in the reserve. The total reduction in base area is smaller than the total CR area primarily because under the law, the amount of base a farmer loses by putting land in the reserve is usually less than the total amount put in the CR.

The rental cost of reserve land averaged about \$49 per acre for the first four sign-ups. Average rental costs have increased from \$42 per acre in the first sign-up to \$44 in the second, \$47 in the third, and \$51 in the fourth sign-up. This increase has been due primarily to enrollment of more productive land. Costs per bushel of reduction in the quantity eligible for program benefits (base production) have not shown an increasing trend. Average costs were \$2.44 per bushel of wheat base removed from production by the CR, \$1.13 per bushel of corn base, and 16 cents per pound of cotton base.

⁴ Program yields are yields used to determine benefits under government commodity programs. They are based on past yields in a county or on an individual farm. See Appendix IV for a glossary of commodity program terms.

In addition to rental costs, the government shares the cost of establishing cover on land entering the reserve. The average cost-share amount paid by USDA for land which entered the CR in 1986 was \$37.50 per acre.

Overall, the land enrolled in the CR program thus far would have produced an estimated 180 million bushels of wheat, 470 million bushels of feed grains, and 560,000 bales of cotton per year.⁵ Had there been no CR program, the surplus production of these commodities in 1987 would be greater and the prices even more depressed.

How Commodity Programs Affect Prices and Program Costs

U.S. price and income support policies include both direct payments (income supports) and price supports. In the former, market price targets are established and direct payments made to producers when prices fall below target levels. In the latter programs, the Commodity Credit Corporation (CCC) acts as the buyer of last resort when prices fall below threshold levels.

For a variety of economic and political reasons, agricultural commodity prices have been under intense economic pressure since 1980, and agricultural programs have become increasingly expensive. As a result, soil conservation programs with the potential to reduce surplus production capacity have broad appeal. In this context, the CR has a strong attraction because it reduces production and production capacity, and can do so at lower cost than other government programs used for the same purpose.

⁵ It is likely that less than 100 percent of the land in the CR would have been planted each year in the absence of the program. In the following analysis, it is assumed that 80 percent of the corn acreage, 84 percent of the wheat acreage, and 90 percent of the cotton acreage in the CR program would have been planted if the program did not exist.

In times of surplus production, USDA frequently acts to restrain production by requiring participation in set-aside programs for farmers to be eligible for price support loans and direct payments, and by direct payments for idling land. These programs require farmers to maintain records and to establish a production and yield history. Acreage reduction programs (ARP) simply require the idling of specific shares of each farm's base for specific crops. Paid diversion programs (PD) entitle eligible participating farmers to be paid for idling cropland on the basis of land productivity.

The ARP is USDA's primary surplus adjustment tool. When the supply-use balance is relatively close, and especially when demand is growing rapidly, relatively small programs can have important impacts. The following example shows a series of hypothetical impacts on the U.S. wheat sector of an ARP program that removes 100 million bushels from production (Table 2).

Table 2. Example of ARP Impacts on Deficiency Payments for Wheat

Item	: : Initial : : Projection :	: : Program : :	: : Program : : Impact
	- - million bushels - -		
Production	: 2,765	2,665	-100
Total Supply	: 3,932	3,832	
Domestic Use	: 908	900	-8
Exports	: 1,509	1,490	-19
Total	: 2,417	2,390	-27
Ending Stocks	: 1,515	1,442	-73
Season Average Price (\$/bu)	: 3.55	3.70	+0.15
Target Price (\$/bu)	: 4.05	4.05	---
Deficiency Payment Rate (\$/bu)	: 0.50	0.35	-0.15
Deficiency Payment (mil \$)	: 663.6	434.5 <u>1/</u>	-229.1

1/ Assumes no change in program participation.

Source: EPI.

In this example, USDA costs were reduced by the use of a larger ARP which reduced production by 100 million bushels, raised prices 15 cents per bushel, and reduced price deficiency payments \$229 million.

The ARP can be expected to reduce production, raise prices, and reduce government costs. However, large ARPs reduce the benefit of the program for program participants while non-participants benefit from higher prices. This limits participation in such programs and reduces their effectiveness in controlling production. When substantial surpluses exist, paid diversion programs are sometimes used in addition to ARP requirements.

PD programs traditionally offer producers a payment per bushel for each additional acre diverted. To be eligible, producers must first idle the share of their production base USDA requires under its ARP. Then they may idle additional acreage for pay. Thus, a PD program that pays \$2 per bushel for wheat would pay a farmer with a "program yield" of 34 bushels per acre \$68 per acre idled.

USDA uses these combined programs because they provide additional incentives to reduce production can save the government more than they cost. This can be seen by an expansion of the previous example (Table 3). In addition to an increased ARP, a PD program is used to reduce production an additional 100 million bushels.

In the foregoing example, the PD program designed to reduce production by 100 million bushels cost \$2 per bushel and diverted 2.6 million acres, just as the 100 million bushel ARP did. The PD increased prices slightly more than the ARP did because the second 100 million bushel reduction brought the supply-use balance slightly closer. And, it reduced price deficiency payments by \$43 million more than the cost of the \$172 million program.

Table 3. Example of a PD Program for Wheat

Item	:	:	100 Million Bushel	:	Change
	:	Initial	:	:	due to
	:	Projection:	ARP	:	PD
	:			:	PD Program
	:	- - million bushels - -			
Production	:	2,765	2,665	2,565	-100
Total Supply	:	3,932	3,832	3,732	
Domestic Use	:	908	900	892	-8
Exports	:	1,509	1,490	1,471	-19
Total	:	2,417	2,390	2,363	-27
Ending Stocks	:	1,515	1,442	1,369	-73
Season Average Price (\$/bu)	:	3.55	3.70	3.86	+0.16
Target Price (\$/bu)	:	4.05	4.05	4.05	---
Deficiency Payment Rate (\$/bu)	:	0.50	0.35	0.19	-0.16
Deficiency Payment (mil \$)	:	663.6	434.5 <u>1/</u>	219.5 <u>1/</u>	-215.0
PD Costs (\$2/bu)	:			172.3	+172.3

1/ Assumes no change in program participation.

Source: EPI.

The PD program in the example reduced government costs in two ways. First, because USDA does not pay target price deficiency payments on diverted land, the program directly reduced the government's obligation to pay any price deficiency payments on 2.6 million acres, thus removing about 86 million bushels from the pool that otherwise would have been eligible for price deficiency payments. This savings was \$30 million. In addition, the cut in production increased market prices and reduced the price deficiency payment rate for all eligible grain by about 16 cents per bushel. Assuming 45 percent of production, or 1.16 billion bushels was eligible for price deficiency payments, the impact of the 16 cent price increase would be \$185 million. By increasing prices, the program could also reduce other commodity program costs--commodity loan forfeitures, storage and handling--associated with low prices.

Had either of these impacts been smaller, the impact of the program would have been smaller, of course. In cases when surpluses are extremely large, the price impact of each production cut becomes very small. At today's surplus levels, for example, the price impact of a 100 million bushel cut in production would be far less than 15 cents, probably only 3 to 5 cents per bushel.

How Does the CR Affect Prices and Cost?

While the CR is primarily a conservation program, it also has very important commodity price and program cost impacts. Land entering the CR is generally less productive than average, but the program costs much less per bushel diverted. Thus, as a companion program to the ARP and PD, it can be less costly than the latter in both saving soil and adjusting production (Table 4).

In the comparison, both programs reduce production by the same amount and have identical market impacts, but have very different savings because of the way they affect program bases and production eligible for price deficiency payments.

Land in the PD program is ineligible for price deficiency payments. Since the official payment yield is somewhat less than the estimated 1987 yield, diverting acreage adequate to reduce wheat production 100 million bushels would reduce production eligible for payments by only 86 million bushels. The cut in production eligible for price deficiency payments from

the CR would be smaller, 58 million bushels.⁶ To cut production 100 million bushels requires that 3.85 million acres of wheat land enter the CR.

Table 4. CR & PD Compared: Reducing Wheat Production 100 Million Bushels

Item	Unit	CR	PD
Acreage Reduction <u>1/</u>	mil acres	3.85	2.61
Annual Rent	\$/acre	45.00	114.90
Annual Rent	\$/bushel	1.73	2/ 2.70
Total Annual Rent	mil \$	173.08	270.00
Average Annual Cover			
Cost Share <u>3/</u>	"	20.09	---
Average Annual Cost	"	193.37	270.00
Deficiency Payment			
Savings:			
From Reduced Eligible			
Production <u>4/</u>	mil bu	58.26	86.13
Subtotal <u>5/</u>	mil \$	122.34	180.87
From Price Impact			
Eligible Production	mil bu	1,932.00	1,904.00
Payment Decrease <u>6/</u>	mil \$	77.28	76.16
Total Savings	"	199.62	257.03
Net Savings	"	6.25	-12.97

1/ Land in the CR has an average yield of 26 bushels. National average wheat yield in 1987 estimated at 38.3 bushels per acre.

2/ Assumed diversion payment rate based on past paid diversion programs.

3/ Cost share for establishing cover at \$37 per acre, amortized over 10 years at 7 percent.

4/ Reduction in acreage for price deficiency payments times estimated program yield of 22.6 bushels per acre for CR; 33 bushels for national average.

5/ Based on estimated 1987/88 payment rate of \$2.10 per bushel.

6/ Based on assumed price increase of 4 cents per bushel.

Source: EPI.

⁶ When land enters the CR, the farm's base is reduced in proportion to the program base share of that farm's total cropland. A farmer with 500 acres of cropland and a 250 acre program base who puts 100 acres into the CR will have a 50 acre cut in program base. If his program base had been 500 acres, placing 100 acres in the CR would have meant a 100 acre cut in program base. On the average, program bases have been reduced about 2 acres for every 3 acres entered into the reserve.

Because lower yielding land enters the CR, and because of the way price deficiency programs are administered, the gross program saving will be less from a CR than from a PD of the same size. However, the cost would be less as well. As a result, at the per bushel payment rates assumed in the example, the CR program is not only more effective in reducing erosion, but may be more efficient in reducing surplus production as well.

This result depends on how much the government offers for paid land diversion. In the past, \$2.70 per bushel was a typical diversion payment rate for wheat. Last year, USDA offered wheat producers only \$2.00 per bushel for paid diversion and only 1 million acres were diverted. If substantially more land is to be diverted, USDA would likely have to offer significantly higher diversion payments. This year, USDA is offering a \$2.00 per bushel payment for diversion of corn land. A comparable program for wheat would involve payments of more than \$3.00 per bushel. It thus appears that for any sizeable diversion program, the CR would be more cost effective than a PD in reducing surplus production.

It should be noted that neither the CR nor a PD is very effective in reducing government costs when surpluses are extremely large. In such cases, the price impact of production cuts is small, so savings in deficiency payments are small also. Thus, as in the example, if a 100 million bushel reduction increases prices by only 4 cents per bushel, the CR results in net budget savings of only \$6 million for a 100 million bushel reduction in production. If, on the other hand, supplies are tighter and prices are more responsive to reduced production, the CR would save the government substantially more money. If the price response had been 15 cents rather than 4 cents per bushel, the CR would have saved a net \$219 million per year.

A second factor which currently limits the deficiency payment savings that can be achieved by either CR or diversion programs is the fact that grain prices are below the loan rate. Since deficiency payment rates are limited by the difference between the target price and the loan rate, price increases do not affect deficiency payments unless the price moves above the loan rate. The combination of very large surpluses and the use of generic certificates held prices below loan rates for many commodities throughout 1986.

The reserve may have a more important impact on reducing costs of commodity loans than on deficiency payments when prices are below the loan rate. Under current program rules, generic commodity certificates permit the repayment of price support loans at less than face value, likely adding to program costs. To the extent the CR raises prices and reduces amounts under commodity loans, this cost is reduced. Furthermore, by reducing surplus production and increasing prices, the CR reduces forfeitures of commodities to the CCC under the commodity loan program, thereby increasing CCC receipts via loan repayments and reducing CCC acquisition and storage costs.

THE CONSERVATION RESERVE DURING THE BALANCE OF THE DECADE

The following section presents a scenario representing the operation of the CR during the remainder of the decade. It is intended to show general impacts of the CR by projecting sector performance with and without the program. It assumes that land will be placed in the reserve roughly in accordance with the legislative target of 25 million acres by 1988, 35 million acres by 1989, and 45 million acres by 1990. In particular, this section is designed to analyze the impacts of the CR in the economic context of low commodity prices expected for the next several years.

The Commodity Outlook: 1987-90

The impact of the CR will depend to a substantial extent on the general agricultural supply and demand situation during the remainder of the decade. In general, the outlook is for continued large surpluses and low prices, even with a large amount of acreage diverted by the CR and other programs. World market growth will be limited by slow to moderate economic growth in the developed nations, large debt burdens of many important developing country markets, and continued emphasis in many countries on policies of increasing domestic agricultural production. Intense competition will continue in the export market, with continued use of export subsidies by the United States and the European Community and aggressive marketing by other exporting nations. The United States may recover some of the export market share it has lost in recent years, although improvements most likely will be incremental.

Acreage reduction and diversion programs in the United States are expected to be large, in addition to land diverted by the CR. Low commodity prices also will tend to reduce production, although the farm program structure will limit this response. Average crop yields will continue to

advance with technology, and due to idling of less productive lands through acreage reduction programs and the CR.

If the United States maintains both a policy of competitive prices in world markets and substantial acreage reductions, U.S. grain stocks should begin to decline significantly by the end of the decade. Prices will subsequently begin to recover, although stocks will still be large enough to prevent dramatic price improvement. Cotton prices, which have already recovered dramatically, are projected to continue improving as exports improve and stocks levels decline.

Given this outlook, it is apparent that without a substantial change in agricultural policy, commodity program costs will continue at high levels for the remainder of the decade. The Administration projects commodity program costs averaging roughly \$20 billion per year for FY 1987-91, and they could easily be higher. Annual costs will begin to decline by 1990 as lower target price levels reduce production and market prices improve.

The outlook for specific crops is discussed in more detail in Appendix III.

Impacts of the Conservation Reserve

The Conservation Reserve is a prominent part of current agricultural policy. To determine its impacts, projections of the supply, use, and prices of wheat, feed grains, and cotton were made assuming the CR did not exist, and compared to those assuming current policies. On the basis of this comparison, changes in government costs and farm income due to the CR were estimated. All other commodity programs are assumed to be the same in the absence of the CR; i.e., no substantial land diversion program is assumed to exist in its place had the CR not been created.

Crop acreage will be substantially lower due to the reserve. By 1990, the area planted to wheat, feed grains, and cotton will decline nearly 40 million acres from the 1986 level under current policy, 27 million acres less than if the CR did not exist (Table 5). The area set aside under acreage reduction and paid diversion programs would be somewhat larger without the CR because of greater incentives to participate in these programs due to lower prices and the larger amount of eligible base acreage.

Table 5. Planted and Idled Area for Wheat, Feed Grains, and Cotton

	:	:	:	:	:	:	:			
Item	:	1986/87	:	1987/88	:	1988/89	:	1989/90	:	1990/91
	:	:	:	:	:	:	:	:	:	:
	:	- - million acres - -								
Current Policy	:									
Planted Area	:	201.8		179.4		172.2		167.2		164.3
Set Aside <u>1/</u>	:	41.6		54.9		58.6		55.9		49.1
CR	:	3.5		17.1		25.0		35.0		45.0
	:									
No CR	:									
Planted Area	:	204.0		188.9		188.0		188.5		191.3
Set Aside	:	42.3		59.3		62.1		60.5		54.1
CR	:	0		0		0		0		0

^{1/} Includes ARP and PD acreage.

Source: EPI.

Without the CR, wheat production would average 8 percent higher during the 1986 to 1990 period, and would be 16 percent higher by 1990 (Table 6). Feed grain and cotton production in 1990 would be 6 percent and 7 percent higher, respectively.

In the absence of the CR, prices would be lower than those now expected. In 1990, wheat prices would be lower by 21 cents per bushel, corn prices by 12 cents per bushel, and cotton prices by 5 cents per pound.

**Table 6. Crop Production and Prices in 1990,
With and Without Conservation Reserve**

Item	:	Wheat	:	Feed Grains	:	Cotton
	:		:		:	
	:	- - million bushels - -				(million bales)
<u>Production</u>	:					
Current Policy:	:	2,022		8,508		12.3
Without CR	:	2,355		9,057		13.1
	:					
	:	- - dollars/bushel - -				(cents/lb)
<u>Farm Price</u>	:					
Current Policy:	:	2.36		1.80 <u>1/</u>		60.5
Without CR	:	2.15		1.68 <u>1/</u>		55.5

1/ Corn price.

Source: EPI.

The CR will reduce government costs and raise farm income. Both by raising prices and by removing highly erodible land from the acreage base eligible for commodity program benefits, the program substantially reduces government outlays for farm price and income support programs, although these savings are largely offset by the costs of the reserve. Farm income will benefit from higher prices and reduced production costs.

Budget Impact

The CR sharply reduces net government outlays for deficiency payments, price support loans, and diversion payments but it adds the cost of rental and cost-share payments. On balance, the program will result in net savings, estimated at about \$600 million for the 1986 through 1990 crops.

Most of the budget savings result from reduced deficiency payments. As has been shown, the CR reduces crop production, raises prices and reduces deficiency payment rates as well as the volume of eligible commodities. Over the 5-year period, deficiency payments would be reduced by \$5.3 billion (Table 7).

Table 7. Budget Impact of the Conservation Reserve, 1986-90

Costs	:	Change in Costs Due to CR
	:	- - billion dollars - -
<u>Commodity Program Costs</u>	:	
Deficiency Payments	:	-5.3
Net CCC Loans	:	-2.5
Storage Costs	:	-0.2
Diversion Payments	:	-0.8
	:	
<u>Conservation Reserve Costs</u>	:	
Rental Payments	:	+6.5
Cost-Share Payments	:	+1.7
	:	
<u>Net Budget Impact</u>	:	-0.6

Source: EPI.

Costs of price support loans will be reduced by \$2.5 billion, since the CR raises prices and diminishes the incentive both to place crops under loan and to forfeit them. As a result, loan receipts are higher and storage costs \$200 million less. Diversion payments are also lower due to the CR because higher market prices and the availability of the CR reduces the amount of land entered into the diversion program.

In total, the CR would reduce conventional commodity program costs by an estimated \$8.8 billion for crop years 1986-90 while adding new costs of \$8.2 billion (\$6.5 billion in CR rental payments and \$1.7 billion in cost-share payments to establish permanent cover).⁷

⁷ Rental costs are projected to average about \$49 per acre through 1990. Future increases in rental costs are expected to be limited by future reductions in target prices and other program benefits, which reduce the value of farmland used for crop production. Cost-share payments, which averaged about \$37 per acre for the first three sign-ups, are projected to continue at this level.

After 1990, the costs of the reserve would be significantly lower since cost-share payments would no longer be required. This would save over \$300 million per year in reserve costs, making the program more cost effective in the longer term.

Farm Income Impact

The CR program will increase net farm income significantly, by an estimated \$2.3 billion over 5 years.

The impacts on farm income are complex and vary by commodity. Price levels are increased, but production and the volume of sales are reduced. Commodity loans and deficiency payments to farmers are reduced, but CR program rental payments add to revenues. Production expenses are reduced since less land is planted, but maintaining protective cover on CR program land adds to farm costs.

Overall, the CR program would increase net farm income by \$2.3 billion in 1986 through 1990 (Table 8). Gross farm income would be lower but reduced production costs more than offset the decline. Wheat producers would gain \$500 million over 5 years; feed grain producers would gain \$1.4 billion; and cotton producers, \$400 million.

Most of the impacts of the reserve would be felt in later years (Table 9). Initial budget costs could be higher because the impact on production and price is small when surpluses are as large as they are now. Costs could increase in 1987/88 due to the large one-time payment being offered to corn producers who participate in the program. After 1987, the CR program is expected to reduce costs each year, with annual savings of \$700 million by 1990. After 1990, the savings would be greater since cost-share payments will no longer be required.

Table 8. Farm Income Impact of the Conservation Reserve, 1986-90

Item	:	Wheat	:	Feed Grains	:	Cotton	:	Total
	:		:		:		:	
	:	- - billion dollars - -						
Sales Revenue	:	-0.3	:	+1.0	:	+0.1	:	+0.8
Government Payment	:	+0.5	:	-1.2	:	-0.6	:	-1.3
Gross Income	:	+0.2	:	-0.2	:	-0.5	:	-0.5
	:		:		:		:	
Variable Production Expenses	:	-1.9	:	-2.8	:	-1.1	:	-5.7
CR Program Compliance Costs	:	+1.5	:	+1.2	:	+0.2	:	+2.9
Total Variable Expenses	:	-0.4	:	-1.6	:	-0.9	:	-2.8
	:		:		:		:	
Net Income (excluding fixed costs)	:	+0.5	:	+1.4	:	+0.4	:	+2.3
	:		:		:		:	
	:		:		:		:	

Source: EPI.

Table 9. Annual Impact of Conservation Reserve

Item	:	Crop Year					:	1986-90
		1986/87	1987/88	1988/89	1989/90	1990/91		
CR Program Acreage (mil acres)	:	3.5	17.1	25.0	35.0	45.0	:	
Net Government Costs (billion dollars)	:	+0.14	+0.48	-0.20	-0.30	-0.70	:	-0.58
Net Farm Income (billion dollars)	:	-0.02	+0.16	+0.42	+0.78	+0.99	:	+2.33

Source: EPI.

The reserve will add to net farm income in every year after 1986 by amounts that will reach \$1.0 billion per year by 1990 and likely increase after 1990. By 1990, the "sodbuster" provisions of the 1985 farm bill will require farmers to implement conservation plans on all highly erodible cropland if they are to be eligible for commodity program benefits. Since it will increase farmers' costs to comply with these requirements, the net return to planting such land will be reduced and the CR's attraction increased.

In summary, the CR program will reduce farm program costs and add significantly to farm income. The primary purpose and benefit of the program, however, is its contribution to reduced soil erosion on highly erodible cropland. By 1990, the CR program will save 1.1 billion tons of soil per year from erosion if the recent performance of the program is continued.

Impact of an Expanded Reserve

In the current budget and economic environment, concerns about the high cost of surplus agricultural production are contributing to proposals to increase the use of supply control programs. Proposals have also been made to expand the CR beyond the maximum size of 45 million acres specified in the Food Security Act of 1985. This could serve many of the same purposes as larger supply control programs with much greater impact on soil erosion.

If the CR were expanded to 60 million acres by 1990, crop production would be significantly lower than under current policy. Wheat production would be affected less than feed grain or cotton. Nearly all eligible wheat land is expected to enter the reserve by 1990 under current policy, but could enter the program sooner under an expanded CR. In 1990, wheat production could be the same as under current policy while feed grain production would be 6 percent lower and cotton production 15 percent lower (Table 10).⁸

Reduced supplies would result in higher prices. By 1990, wheat prices would be 8 cents per bushel higher than under current policy, while corn prices would be increased 13 cents per bushel and cotton prices 8 cents per pound.

⁸ These estimates assume USDA selects the lowest cost land for entry into the CR, so that substantial corn land enters only after eligible area of other crops begin to be used up.

Table 10. Crop Production and Prices in 1990,
45 Million Acre and 60 Million Acre CR

Item	:	Wheat	:	Feed Grains	:	Cotton
	:		:		:	
	:	- - million bushels - -				(million bales)
<u>Production</u>	:					
45 Million Acre CR	:	2,022		8,508		12.3
60 Million Acre CR	:	2,022		7,982		10.5
	:					
	:	- - dollars/bushel - -				(cents/lb)
<u>Farm Price</u>	:					
45 Million Acre CR	:	2.36		1/1.80		60.5
60 Million Acre CR	:	2.44		1/1.93		68.8

1/ Corn price.

Source: EPI.

The expanded CR would reduce government outlays on deficiency payments, commodity loans, and other costs by more than \$4 billion during 1988 through 1990 (relative to current policy). Reserve costs would also be increased, by nearly \$3 billion.⁹ The net impact would be to reduce budget costs by \$1.2 billion over the 3-year period (Table 11). Costs could increase initially as limited supply and price effects fail to offset the increased reserve payments, but by 1990 net program costs would be \$800 million lower than under current policy.

Farm income would be higher due to the expanded reserve. During 1988 to 1990, net farm income would be about \$600 million higher. Wheat producers would gain \$200 million, feed grain producers \$200 million, and cotton producers \$200 million. Most of the increase would occur after a few years, once prices have increased significantly.

⁹ Rental costs per acre are projected to be higher under the expanded program, exceeding \$60 per acre for the last 10 million acres entered.

**Table 11. Annual Impact of 60 Million Acre Conservation Reserve
(Relative to Current Policy)**

Item	Crop Year					1986-90 Total
	1986/87	1987/88	1988/89	1989/90	1990/91	
CR Program Acreage (mil acres)	3.5	17.1	35.0	50.0	60.0	
Net Government Costs (billion dollars)	0	0	+0.1	-0.5	-0.8	-1.2
Net Farm Income (billion dollars)	0	0	-0.1	+0.1	+0.6	+0.6

Source: EPI.

APPENDIX I. IMPACTS OF THE PROPOSED "0-92 PROVISION"

As part of its budget proposal for FY 1988, the Administration proposed to allow producers of program crops to receive nearly all of their eligible deficiency payments (92 percent) and maintain the acreage base for a crop even if they plant none of their eligible acreage (the "0-92 provision"). The 1985 farm bill permitted farmers to plant as little as 50 percent of their eligible acreage and still receive 92 percent of their eligible deficiency payments. The 0-92 provision expands that provision by removing entirely the minimum planting requirement.

The proposal is seen as a way to separate payment eligibility from production requirements, and to provide a possible transition to less expensive annual programs. It is causing serious concerns by conservationists who fear that its adoption would reduce the attractiveness of the CR program. Farmers could receive payments, but avoid both cost of planting and the commitment to conservation associated with the CR program. However, the economics of the choices faced by most farmers imply that as an annual program the proposed 0-92 provision would have little impact either on farmers' planting decisions or their participation in the CR program.

To be economically attractive, the decision not to plant must mean a greater return than expected from planting. Wheat production at average yields and variable production costs and selling at a price of \$2.30 per bushel will earn \$95 per acre, including a deficiency payment of \$67 per acre (Table I-1). Acreage not planted under the 0-92 provision would earn only \$62 per acre in deficiency payments. Thus, for any producer with close to average variable costs and yields, participating in the 0-92 program is not economically beneficial. A wheat producer's costs would have to be more than

two-thirds above average for the decision not to plant to be advantageous. In 1981, 99 percent of wheat production was produced at a variable cost less than two-thirds above the mean.¹⁰ If the distribution is similar today, less than 1 percent of wheat production would be affected by the 0-92 provision. The situation is similar for corn producers, whose costs would have to be more than three-fourths above the mean for not planting to be attractive. Less than 2 percent of corn production was produced at such a cost level in 1981.¹¹ USDA estimates that adoption of the 0-92 provision would cause roughly 3.5 million acres to be idled, less than 2 percent of the acres planted to wheat, feed grains, and cotton.

Table I-1. Returns to Wheat Program Participant From Planting Versus Not Planting Under the 0-92 Provision

Item	Unit	Plant	Don't Plant
Yield	bu/acre	34	NA
Price	\$/bu	2.30	NA
Gross Market Return	\$/acre	78	0
Deficiency Payments	"	67	62
Total Return	"	145	62
Variable Costs	"	-50	NA
Net Return	"	95	62

NA = Not applicable.

The expectation that the impact of a 0-92 provision will be minimal is supported by the fact that the 50-92 provision has had very little impact. Official data are not yet available, but USDA analysts believe that the 50-92

¹⁰ Agricultural-Food Policy Review: Commodity Program Perspectives, Economic Research Service, USDA, Ag Economic Report No. 530, July 1985, p. 145.

¹¹ Ibid, p. 146.

provision of the farm bill has not substantially reduced planted acreages and the production data support that observation. In fact, a 0-92 provision is a less dramatic change from current policy than it might seem. Many farmers who are interested in reducing plantings are interested in farming their best land and idling the rest, in most cases less than 50 percent of eligible acreage. Such a change enables more intensive efforts on the remainder. For these farmers, the 0-92 provision is of minimal impact.

It is possible that in some circumstances, the 0-92 provision will have a greater than expected impact. For farmers who must plant at least 50 percent of eligible acreage, the marginal cost of planting the rest would be smaller than for those who plant nothing. And, especially for producers who were unable to plant on time because of wet weather, the program is attractive.

Farmers who plan to leave farming also might find the 0-92 provision attractive, since they can take other jobs and preserve their option to return year by year. This would be even more attractive if the program were offered for more than 1 year at a time.

Both the 0-92 provision and the 50-92 provision of the current law tend to put a threshold value on acreage base, and thus on the rental payment needed to bring the land into the CR program. In that regard, the 0-92 provision would change the situation little from current law. Neither is likely to have much impact on the value of base acreage relative to its value for planting purposes.

APPENDIX II. METHODOLOGY

The projections provided in this report are based upon a supply and demand model of the grains and cotton sectors. Projections of the supply and use of those crops were made assuming land is placed in the Conservation Reserve in accordance with levels specified in the 1985 farm bill. Estimates of CR acreage by crop are based on data from the first three sign-ups and on the amount of crop acreage eligible for the program. Planted area is based on the amount of CR acreage and acreage idled by set-aside programs, adjusted to reflect "slippage" (the amount by which set-aside acreage normally exceeds the actual reduction in planted area) and the price outlook. Yield projections assume normal weather and reflect an increase in yields due to removal of lower yielding reserve land from production.

Projections of use are based upon judgments about the potential for export and domestic market growth, given the economic and political outlook in the United States and important foreign markets. Prices are assumed to be a function of the level of "free" stocks (stocks not owned or controlled by the government).

Government stocks are projected based on the level of commodity loan forfeitures (which depend on the price), sales and donations of CCC commodities, and redemptions of generic commodity certificates. Generic certificates are assumed to continue to be used for the life of the 1985 farm bill. Certificate redemptions are projected based on experience with the program so far, with about one-fourth of redemptions for wheat, and most of the remainder for corn. Each 100 bushels of grain redeemed with commodity certificates is assumed to increase free stocks by less than 100 bushels

because the availability of certificates increases the attractiveness and therefore the usage of the commodity loan program.

Based on projections of program participation, acreage, supply, use, prices, and government loan and certificate activity, government costs and farm income can be projected. Net farm income estimates represent cash income net of variable production expenses, and thus are not directly comparable to net farm income data reported by USDA. Nevertheless, since fixed expenses would be little affected by a farmers' participation in the CR, the projected change in net farm due to the reserve should be accurate.

The model is used to project a new supply/demand balance assuming the CR did not exist. Planted acreage is greater in this case, although it is adjusted to reflect slippage and lower prices resulting from greater supplies. Yields are lower due to inclusion of lower yield CR land in the area planted. Use increases without the CR, reflecting demand response to lower prices. Prices, government commodity loan activity, government costs, and farm income are determined as in the baseline scenario.

Some of the key parameters used in the model are shown in the following table:

Table II-1. Model Parameters

Item	:	Wheat	:	Corn	:	Cotton
Ratio of yield on CR land to average yield	:	0.67	:	0.76	:	0.49
Share of CR land which would have been planted if CR didn't exist ("slippage" factor)	:	0.84	:	0.80	:	0.90
Price elasticity of supply	:	0.10	:	0.10	:	0.20
Price elasticity of domestic demand	:	-0.50	:	-0.70	:	-0.50
Price elasticity of export demand	:	-0.50	:	-0.50	:	-0.50
Cents/bushel change in price from 100 million bushel increase in free stocks	:	-4.0	:	-2.0 <u>1/</u>	:	-5.0 <u>2/</u>
Share of generic certificate redemptions (in value terms)	:	0.24	:	0.62	:	NA
Bushel increase in free stocks from redemption of 1 bushel with certificates	:	0.5	:	0.5	:	NA

1/ Based on free stocks of all feed grains.

2/ Cents/pound change from a 1 million bale increase in stocks.

NA = Not applicable.

APPENDIX III. BASELINE PROJECTIONS: 1986-90Wheat

Wheat planting will be significantly reduced by acreage reduction programs and the conservation reserve in the next several years. Nearly 20 million acres of wheat land is idled now, a level that is projected to continue for several years while supplies continue to be excessive (Table III-1). Since half of CR land is from wheat, over 20 million acres of wheat land is expected to be in the reserve by 1990. Thus, planted area is projected to decline to 54 million acres by 1990.

Given normal weather and expected yield increases, annual wheat production will average about 2.0 billion bushels in the next several years. As exports continue to recover, wheat use will eventually exceed this level and the large stocks will begin to be drawn down. In the near term, prices are likely to continue falling as the loan rate is reduced and stocks stay high. This will be exacerbated by large transfers of government-controlled stocks into the market via the use of generic commodity certificates and the Export Enhancement Program (EEP). By 1989, stocks will begin to decline significantly, allowing prices to rise above the loan rate. Wheat prices are projected to recover to slightly above current levels by 1990.

Table III-1. Wheat: Supply, Use, and Prices

Item	1981/82	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
- - million acres - -							
Area							
Planted	88.3	75.6	71.8	64.5	59.0	55.5	53.9
Harvested	80.6	64.7	60.5	56.5	51.7	48.6	47.2
Set Aside ^{1/}	0	18.8	19.0	20.0	23.3	22.1	16.5
Conservation:							
Reserve	0	0	1.7	7.4	12.3	17.2	22.1
- - bushels per acre - -							
Yield	34.5	37.5	34.4	39.5	40.0	41.0	42.0
- - million bushels - -							
Supply							
Beg. Stocks	989	1,425	1,905	1,921	2,072	1,949	1,643
Production	2,785	2,425	2,087	2,232	2,068	1,995	1,984
Imports	3	15	9	9	9	9	9
Use							
Domestic	847	1,045	1,105	1,090	1,100	1,110	1,120
Exports	1,771	915	975	1,000	1,100	1,200	1,300
Ending Stocks	1,159	1,905	1,921	2,072	1,949	1,643	1,215
- - dollars per bushel - -							
Prices							
Farm	3.65	3.16	2.30	2.22	2.21	2.26	2.37
Loan Rate	3.20	3.30	2.40	2.28	2.17	2.06	2.06

^{1/} Includes acreage reduction and paid diversion acreage.

Source: Historical data from USDA.

Feed Grains

The outlook for feed grains is similar. Assuming large acreage reduction and diversion programs continue, and that about 40 percent of CR land is feed grain land, planted area will be reduced by nearly 30 million acres by 1990 and production held under 9.0 billion bushels (Table III-2). With continued moderate growth in domestic usage and exports, stocks will begin to fall and prices to recover in 1988/89. Stocks will fall significantly and prices will recover to above the loan rate by 1990.

Table III-2. Feed Grains: Supply, Use, and Prices

Item	: 1981/82:	: 1985/86:	: 1986/87:	: 1987/88:	: 1988/89:	: 1989/90:	: 1990/91
	:	:	:	:	:	:	:
	- - million acres - -						
Area	:	:	:	:	:	:	:
Planted	: 123.6	: 128.1	: 119.9	: 106.0	: 105.1	: 102.3	: 99.2
Harvested	: 107.0	: 111.8	: 102.0	: 91.3	: 90.5	: 88.1	: 85.5
Set Aside	: 0	: 7.1	: 19.4	: 30.7	: 28.6	: 28.0	: 27.9
Conservation:	:	:	:	:	:	:	:
Reserve	: 0	: 0	: 1.6	: 7.5	: 10.6	: 14.7	: 19.0
	- - bushels per acre - -						
Yield	: 93.3	: 99.4	: 99.9	: 96.9	: 97.3	: 98.7	: 99.8
	- - million bushels - -						
Supply	:	:	:	:	:	:	:
Beg. Stocks	: 1,600	: 2,375	: 5,098	: 6,912	: 7,115	: 6,888	: 5,958
Production	: 9,979	: 11,109	: 10,193	: 8,843	: 8,808	: 8,695	: 8,536
Imports	:	: 48	: 38	: 40	: 40	: 40	: 40
Use	:	:	:	:	:	:	:
Domestic	: 6,295	: 6,989	: 7,015	: 7,075	: 7,250	: 7,415	: 7,580
Exports	: 2,377	: 1,443	: 1,402	: 1,605	: 1,825	: 2,250	: 2,470
Ending Stocks	: 3,156	: 5,098	: 6,912	: 7,115	: 6,888	: 5,958	: 4,484
	- - dollars per bushel - -						
Corn Price	:	:	:	:	:	:	:
Farm	: 2.50	: 2.35	: 1.50	: 1.49	: 1.49	: 1.55	: 1.69
Loan Rate	: 2.40	: 2.55	: 1.92	: 1.82	: 1.73	: 1.65	: 1.56

Source: Historical data from USDA.

Cotton

The outlook is brighter for cotton than for grains. The world glut of cotton has eased considerably in the past year as both the U.S. and foreign production declined and world use has grown. U.S. exports recovered dramatically under the 1985 farm bill's marketing loan program which allows cotton to compete in world markets. As a result, cotton stocks at the end of the 1986/87 marketing year are expected to be less than three-fifths of last year's level (Table III-3).

Nevertheless, set-aside programs are likely to continue for the next few years and annual cotton production is projected to be between 12 and 13 million bales. With competitive exports, stocks will continue to fall and prices to strengthen. Stronger prices will stimulate foreign production and restrain export market growth. Thus, while near-term price improvement is expected, prices significantly above 60 cents per pound (U.S. farm level basis) are unlikely in the long term.

Table III-3. Cotton: Supply, Use, and Prices

Item	1981/82	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
-- million acres --							
Area							
Planted	14.3	10.7	10.1	10.5	10.3	10.6	10.2
Harvested	13.8	10.3	8.5	9.9	9.5	9.9	9.4
Set Aside	0	3.6	3.2	2.7	2.7	1.6	1.5
Conservation:							
Reserve	0	0	0.1	0.8	1.3	1.9	2.4
-- pounds per acre --							
Yield	542	630	553	590	600	610	620
-- million bales --							
Supply							
Beg. Stocks	2.7	4.1	9.4	5.4	4.0	2.9	2.8
Production	15.6	13.4	9.8	12.2	11.9	12.6	12.2
Use							
Domestic	5.3	6.4	7.0	7.0	7.1	7.1	7.2
Exports	6.6	2.0	6.8	6.5	6.0	5.5	5.0
Ending Stocks	6.6	9.4	5.4	4.0	2.9	2.8	2.8
-- cents per pound --							
Prices							
Farm	54.3	54.8	48.0	54.9	60.6	61.1	61.0
Loan Rate	52.5	57.3	55.0	52.3	50.0	50.0	50.0

Source: Historical data from USDA.

APPENDIX IV. GLOSSARY

Acreage Reduction Program (ARP) - To qualify for commodity loans, deficiency payments, and other program benefits, farmers must devote a portion of their acreage base to conserving uses, as determined by the Secretary. The proportion of acreage reduction required is set for each crop prior to planting, and is the same for all program participants.

Base Acreage - The amount of acreage of program crops eligible for program benefits, including commodity loans, deficiency payments, and other benefits. The 1985 farm bill changed the way acreage bases are determined, establishing a farm's acreage base for a crop as the average of planted and considered planted acreage to the crop in the previous five years, but not exceeding the average of planted and considered planted acreage in the preceding two years. Considered planted acreage includes acreage idled under acreage reduction or paid diversion programs, acreage prevented from being planted due to a disaster and underplanted acreage planted to non-program crops other than soybeans or extra long staple cotton.

Base Production - The amount of production eligible for program benefits. It is based on planted area and the program payment yield.

Commodity Credit Corporation (CCC) - A government-owned corporation responsible for operation of farm price and income support programs.

Deficiency Payments - Payments made to producers participating in voluntary acreage reduction programs when seasonal farm prices are below the target price for wheat, feed grains, cotton, and rice. The payment rate is the difference between the target price and the average farm price or the loan rate, whichever is greater. A farm's deficiency payment for a crop is equal to the payment rate times the eligible area planted to the crop times the program payment yield. The maximum amount of deficiency and other specified direct payments which a farm can receive in one year is \$50,000.

Export Enhancement Program (EEP; also called "Export PIK") - Under the EEP, exporters receive in-kind bonuses from U.S. government stocks to promote commercial exports of U.S. commodities. For example, an exporter may sell wheat to a Middle Eastern market and bid for a \$30 per ton export bonus. If this bid is accepted, he will receive \$30 worth of CCC commodities for each ton included in that sale.

Generic Commodity Certificates - Negotiable commodity certificates which can be redeemed as payment for a commodity loan, for CCC inventories, or cash. Such certificates are used in lieu of cash payments for a variety of purposes under the 1985 farm bill, including deficiency payments, diversion payments, conservation reserve payments, and other purposes. These certificates are issued in dollar amounts, and the amount of a commodity which one can be redeemed for is based on the posted country price on the day it is redeemed. Generic certificates can be traded and redeemed for any kind of uncommitted CCC inventories up to the expiration date of the certificate.

Marketing Loan - A non-recourse commodity loan which may be repaid at a rate lower than the loan rate. The 1985 farm bill required the use of marketing loans for rice and cotton. Under these programs, producers repay commodity loans at a rate based on the world market price. The result is that such commodities can be sold at prices significantly below the loan rate. Marketing loans are authorized for other commodities, but are not used by the Secretary.

Non-Recourse Commodity Loan (also called "CCC loan") - A government loan made to a crop producer secured solely by the crop pledged as collateral. The rate at which loans are provided (the loan rate) often acts as a floor price because farmers have the option to forfeit the commodity in lieu of repayment. That is, if prices are significantly below the loan rate, farmers choose not to sell, tending to restrict supply and force prices up. The loan rate does not provide a strict floor for prices, which can move below the loan rate when supplies are excessive. Several programs established in the 1985 farm bill have allowed prices to move further below the loan rate than they otherwise would have (see "Marketing Loan," "Export Enhancement Program," and "Generic Commodity Certificates").

Paid Acreage Diversion (PD) - The Secretary may offer payments to producers for idling base acreage through a paid diversion program. These payments may be in cash or in kind (see "Payment-in-Kind").

Payment-in-Kind (PIK) - PIK most commonly refers to acreage diversion programs in which diversion payments are made in kind. The most substantial use of PIK occurred in 1983, when a large PIK paid acreage diversion program was combined with a large voluntary acreage reduction program to cause a large reduction in acreage planted to program crops. Sometimes, "PIK" refers to the use of in-kind commodity payments for other purposes as in "export PIK" (see "Export Enhancement Program").

Program Payment Yield - The yield used to determine the amount of production eligible for program benefits. It is usually based on past yields in a county or on an individual farm. Under the 1985 farm bill, program yields were frozen in 1986 and 1987, and may be frozen afterward at the discretion of the Secretary of Agriculture.

Target Price - A reference price level used to calculate deficiency payments. The 1985 farm bill provides for a gradual reduction in target prices, reducing them by 10 percent over the life of the bill.