Feed Grain, Wheat and Soybean Provisions
of the Food Security Act of 1985

By

John N. Ferris
Department of Agricultural Economics
Michigan State University

The Food Security Act of 1985 passed by Congress and signed by the President in December 1985 is a complex package providing for stable to declining support levels for feed grains, wheat and soybeans over the 1986-90 period. A feature of the Act is unprecedented flexibility for the Secretary of Agriculture in establishing levels for nonrecourse loans and certain other parameters of the program.

The Act freezes target prices at the existing 1985 levels ($3.03 for corn and $4.38 for wheat) for two years on corn and wheat followed by reductions of 2 percent, 3 percent and 5 percent in the subsequent years. "Statutory" loan rates were set at $2.40 per bushel on corn and $3.00 per bushel on wheat in 1986; for 1987-90 at 75-85 percent of the average market price for the previous five years disregarding the high and low years. The Findley Amendment requires a 10 percent reduction from these levels in 1986 and allows an additional 10 percent reduction at the discretion of the Secretary. In 1987-90, the Secretary may reduce loans from the statutory levels by up to 20 percent in order to make prices competitive. A restriction on the Secretary is that the statutory loan cannot be lowered by more than 5 percent per year.

On soybeans, the Act continues the loan rate at $5.02 per bushel in 1986 and 1987. In 1988-90, the loan rate will be 75 percent of the previous five-year average disregarding high and low years. The loan cannot be lowered by more than 5 percent

per year with a floor of $4.50 per bushel. If the loan level, as computed, would discourage exports and cause excessive U.S. stocks of soybeans, the Secretary may reduce the rate by the amount necessary to maintain domestic and export markets, but no more than 5 percent per year or below $4.50 per bushel. Tables 1 and 2 present the support levels implied by the Act for 1986-90, showing the minimum loan levels.

The Act authorizes the Secretary to permit repayment of crop loans at a rate equal to the prevailing world market price for wheat and feed grains if that rate is lower than the effective loan rate. Repayment could not be less than 70 percent of the loan. (This provision was not authorized for 1986 nor 1987 crops.)

Acreage reduction programs (ARP) are required on corn if the carry-in stocks at the beginning of the crop year are estimated to exceed 2 billion bushels, and on wheat if carry-in is estimated to exceed 1 billion bushels. The minimum acreage reduction is 15 percent of the base on corn in 1986 and 12.5 percent in 1987-90 and a maximum of 20 percent for the entire period. On wheat, the minimum is 17.5 percent in 1986 and 20 percent in 1987-90 with a maximum of 25 percent in 1986, 27.5 percent in 1987 and 30 percent in 1988-90.

A "set-aside" program may be implemented rather than an acreage reduction program (ARP). If announced, producers must set aside and devote to conserving uses of acreage equal to a specified percentage of the current year's acreage planted for harvest to that crop. If a set-aside program is established, the Secretary may also limit the acreage planted to wheat or feed grains or both.

The Secretary may also offer producers a paid land diversion (PLD) program. A diversion program can be offered whether or not an acreage reduction or set-aside program is in effect.

Table 1

Corn and Soybean Supports

	Year					
	1985	1986	1987	1988	1989	1990
Corn						
Target price	3.03	3.03	3.03	2.97	2.88	2.75
Statutory loan	--	2.40	2.28	2.17	2.06	1.95 [a]
Actual loan	2.55	1.92	1.82	1.74	1.65	1.57
Farm price	2.25 [b]	1.50 [c]				
Deficiency payment	.48	1.11				
Soybean Loan	5.02	4.77	4.53	4.50	4.50	4.50

(handwritten: 4.77   4.53 above 1987-1988 Soybean Loan)

[a]Minimum   [b]October 1985 - February 1986.   [c]Forecast for crop year.

Table 2

Wheat Supports

	Year					
	1985	1986	1987	1988	1989	1990
Target price	4.38	4.38	4.38	4.29	4.16	4.00
Statutory loan	--	3.00	2.85	2.71	2.57	2.44 [a]
Actual loan	3.30	2.40	2.28	2.17	2.00	1.95
Farm price	2.99 [b]	2.30 [c]				
Deficiency payment	1.08	1.98				

[a]Minimum   [b]Average of June - October.   [c]Forecast for crop year.

Acreage bases will be the average of planted and considered planted acreage in the five previous years rather than the previous two years. For 1986 and 1987, program yields are frozen at the average of 1981-85 levels disregarding high and low years. In 1988-90, the Secretary has discretion to phase in actual yields for the most recent crop in calculating a five-year average of program and actual yields.

Of interest to large producers is the fact that a $50,000 upper limit is placed on deficiency and diversion payments. Exempt from this ceiling are any payments resulting from the Secretary's use of the 10-20 percent loan reductions--that is the portion of deficiency payments below the statutory loans. Also exempt are any gains realized by repaying a loan at a level less than the original loan level.

Related to feed grains, wheat and soybeans is the provision in the Act for a "Conservation Reserve." Up to 45 million acres of highly erodible cropland could be taken out of production through 10-15 year contracts with farmers. The contracts will be awarded to the lowest bidders on a national basis. The reserve is to be phased in with 5 million acres to be taken out of production in 1986, 10 million acres in 1987, 1988 and 1989 with at least an additional 5 million taken out in 1990.

Announced Program for 1986

The Secretary announced in January that the loan rates would be lowered by the maximum 20 percent under the statutory levels. This resulted in a sharp drop in the loan rate on corn from $2.55 per bushel in 1985 to $1.92 per bushel in 1986. On wheat, the loan rate was reduced from $3.30 per bushel in 1985 to $2.40 per bushel in 1986.

On corn, participating growers must devote 20 percent of their base to conserving uses; 17.5 percent of the base represents acreage reduction and 2.5 percent represents paid land diversion. The payment rate will be 73 cents per bushel times the program yield. This payment will be in-kind.

On wheat, participating growers must devote 25 percent of their base to conserving uses; 22.5 percent of the base represents acreage reduction and 2.5 percent

represents paid land diversion. The payment rate will be $1.10 per bushel times the program yield and will be made in-kind. Winter wheat producers who reduce acreage planted so that it does not exceed 65 percent of the farm wheat base may be eligible to receive diversion payments on an acreage equivalent to 10 percent of the wheat base. The payment rate on this 10 percent will be $2.00 per bushel.

As in the past, deficiency payments will be equal to the difference between the target price and the farm price with the maximum equal to the difference between the target price and the loan rate. One difference in the new Act is that the farm price, if below the statutory loan, will be the weighted average U.S. farm price for the entire season rather than the simple average of the U.S. farm price in the first five months of the crop year. This means that the final deficiency payment cannot be made until after the end of the entire crop year rather than after the first five months.

Producers could have requested 40 percent of their total estimated deficiency payment at the time they signed up. Of this advance payment, 25 percent was in-kind. Producers had from May 1 to September 30 to request the in-kind portion of their advance payment and/or deficiency payment. The 75 percent of the advance deficiency payment to be made in cash was made at the time of sign-up.

Producers are issued negotiable certificates which may be sold, but are only redeemable for CCC-owned commodities at a value to the determined by CCC. The certificates are "generic." That is, they may be redeemed by producers for any regular, special or farmer-owned reserve loan commodity and by commercial firms for any CCC-owned commodity.

Under the Conservation Reserve Program, rental payments will be either in cash or negotiable payment-in-kind certificates. Farmers must submit bids at time of application. There will be a 50 percent cost sharing on conservation cover practices. There is a $50,000 per person limit on annual rental payments, but not on cost shares.

The Soil Conservation Service determines the classification or erosion levels of land. All Class 6, 7 and 8 land is eligible along with any land in Classes 2 through 5 that is eroding at three times the tolerance level. Bases will be reduced by the ratio of cropland on the farm to the amount put into the program. The producer will choose which bases will be reduced over the life of the contract.

Announced Program for 1987

The Secretary announced this past summer that the loan rate on the 1987 wheat crop would be lowered the maximum 5 percent to $2.28 per bushel. Participants must put 27.5 percent of their base into conserving uses to be eligible for the loan and any deficiency payments. Likely deficiency payments will be near the maximum of $2.10 per bushel. No diversion program was provided.

However, on feed grain, the Secretary announced in October that producers would have the option of setting aside an additional 15 percent of their base in 1987. Participants would receive $2.00 per bushel on corn, $1.90 on sorghum, $1.60 on barley and $.80 on oats. Fifty percent of the diversion payment will be paid in cash and half in generic certificates. This diversion is in addition to the 20 percent minimum ARP requirement.

The 1987 loan rate on corn was set at the minimum $1.82 per bushel. On other feed grains, the loan will be $1.74 on sorghum, $1.49 on barley and $.94 on oats.

For both wheat and feed grain producers, half of the advance deficiency payments will be made using generic certificates. Since wheat and feed grain producers will receive 40 percent of the estimated deficiency payments in advance, the generic certificates will represent 20 percent of these payments. The USDA estimates that the deficiency payment on wheat will be $2.10 per bushel; for corn, $1.21; for sorghum, $1.14; for barley, $1.11; and for oats, $.55. Actual yields in 1987 and subsequent crop years will not be used to establish farm program payment yields for the 1988 and subsequent wheat and feed grain crops.

Advance payments will be made at sign-up which is through March 30, 1987 for both wheat and feed grain producers.

Evaluating Alternatives for 1987-90

The large carryover of feed grains, wheat and soybeans into the 1987-88 crop year will tend to keep market prices near to or below their respective loan rates. Issuance of generic PIK Certificates on the 1986 crop has pushed corn prices well below the loan rate this fall. The large deficiency payments on corn and wheat in prospect for 1987 will make the Feed Grain and Wheat Programs very attractive.

Tables 3 and 4 provide a format for estimating prospective returns to participation in the Feed Grain and Wheat Programs.[1] For illustration, net returns per base acre from a participating farm is compared to returns from a non-participating farm over the 1986-90 period under assumed conditions. The farm prices of corn and wheat were set below the loan rate for 1986. In 1987, market prices on corn were projected to be somewhat higher than in 1986 and on wheat somewhat lower. Prices are projected to be steady in 1988 and then move up gradually. The acres devoted to conserving uses were held at the maximum percentage of the base and it was assumed that all allowable acreage was planted to corn and wheat. The 15 percent diversion program established on feed grain for 1987 was assumed to continue. Budgets were based on full use of this option. Trend yields were projected with yields on the reduced acreage somewhat higher than if the total base was planted.

---

[1] Cost figures were based on U.S. averages and include labor and interest on operating capital. Storage costs were not included. Returns from participation reflect the situation on farms with base acreages in line with acreages planted if not in the program. For a more detailed format for calculating returns from participating or not participating in Michigan, see MSU Agricultural Economics Staff Paper No. 86-13.

Table 3
Prospective Returns to Participation in the Feed
Grain Program in 1986-90 Under Assumed Conditions[a]

	Unit	Years 1986	1987	1988	1989	1990
Participant						
Gross from the market						
Price of corn (or loan)[b,c]	$/bu.	1.69	1.67	1.67	1.85	2.10
x yield	bu.	119	117	119	121	123
x (100% - % AR + DV)[d]		.80	.65	.65	.65	.65
= gross per base acre	$	161	127	129	146	168
Diversion payment						
Payment rate	$/bu.	.73	2.00	2.00	2.00	2.00
x program yield	bu.	106	106	106	106	106
x % DV		.025	.15	.15	.15	.15
= gross per base acre	$	2	32	32	32	32
Deficiency payment						
Target price	$/bu.	3.03	3.03	2.97	2.88	2.75
- price of corn (or loan)[b]	$/bu.	1.92	1.82	1.74	1.85	2.10
= deficiency payment rate	$/bu.	1.07[e]	1.21	1.23	1.03	.65
x program yield	bu.	106	106	106	106	106
x (100% - % AR + DV)		.80	.65	.65	.65	.65
= gross per base acre	$	91	83	85	71	45
Total gross per base acre	$	254	242	246	249	245
Variable Costs						
per planted acre	$	138	131	135	141	147
x (100% - % AR + DV)		.80	.65	.65	.65	.65
= per base acre	$	110	85	88	92	96
Per conserving use acre	$	10	10	10	10	10
x (% AR + DV)		.35, 20	.35	.35	.35	.35
= per base acre	$	2	4	4	4	4
Total		112	89	92	96	100
Net returns per base acre over variable costs	$	142	153	154	153	145
Non-Participant						
Price of corn	$/bu.	1.50	1.65	1.67	1.85	2.10
x yield	bu.	117	113	115	117	119
= gross per acre	$	175	186	192	216	250
- variable costs	$	136	131	135	141	142
= net return per acre	$	39	55	57	75	108

[a]Effect of Gramm-Rudman-Hollings not included after 1986.
[b]Whichever is higher.
[c]Loan is discounted 15 cents to account for average costs of storing on and off the farm.
[d]AR = % of base in acreage reduction; DV = % of base in paid diversion.
[e]Cash deficiency payments were discounted by 4.3% in 1986 to account for G-R-H.

Table 4
Prospective Returns to Participation in the Wheat
Program in 1986-90 Under Assumed Conditions[a]

	Unit	Years				
		1986	1987	1988	1989	1990
Participant						
Gross from the market						
Price of wheat (or loan)[b,c]	$/bu.	2.30	2.13	2.13	2.46	2.80
x yield	bu.	34.5	40.1	40.9	41.4	41.9
x (100% - % AR + DV)[d]		.75	.725	.70	.70	.70
= gross per base acre	$	60	62	61	71	82
Diversion payment						
Payment rate	$/bu.	1.10	1.10	1.10	1.10	1.10
x program yield	bu.	33.6	33.6	33.6	33.6	33.6
x % DV		.025	0	0	0	0
= gross per base acre	$	1				
Deficiency payment						
Target price	$/bu.	4.38	4.38	4.29	4.16	4.00
- price of wheat (or loan)[b]	$/bu.	2.40	2.28	2.17	2.46	2.80
= deficiency payment rate	$/bu.	1.91[e]	2.10	2.12	1.70	1.20
x program yield	bu.	33.6	33.6	33.6	33.6	33.6
x (100% - % AR + DV)		.75	.725	.70	.70	.70
= gross per base acre	$	48	51	50	40	28
Total gross per base acre	$	109	113	111	111	110
Variable Costs						
per planted acre	$	57	56	55	57	60
x (100% - % AR + DV)		.75	.725	.70	.70	.70
= per base acre	$	43	41	38	40	42
Per conserving use acre	$	10	10	10	10	10
x (% AR + DV)		.25	.275	.30	.30	.30
= per base acre	$	2	3	3	3	3
Total		45	44	41	43	45
Net returns per base acre over variable costs	$	64	69	70	68	65
Non-Participant						
Price of wheat	$/bu.	2.30	2.13	2.13	2.46	2.80
x yield	bu.	32.4	38.2	38.8	39.3	39.8
= gross per acre	$	75	81	83	97	111
- variable costs	$	57	56	55	57	60
= net return per acre	$	18	25	28	40	51

[a]Effect of Gramm-Rudman-Hollings not included after 1986.
[b]Whichever is higher.
[c]Loan is discounted 15 cents to account for average costs of storing on and off the farm.
[d]AR = % of base in acreage reduction; DV = % of base in paid diversion.
[e]Cash deficiency payments were discounted by 4.3% in 1986 to account for G-R-H.

As can be seen, the net return over variable costs per base acre from participating was three to four times that from not participating in 1986. The advantage may have been even greater in Michigan because yields were adversely affected by wet weather in the early fall. A noticeable advantage to participation will continue through the remainder of the decade under the stated assumptions.

Note that in spite of the projected rise in corn and wheat prices, the net returns to participation do not change materially. This is because the deficiency payments would decline, offsetting the rise in price. Barring major changes in the farm program or departures from trend yields, the outlook for returns is more established than has been true for some time. The effect of Gramm-Rudman-Hollings was not explicitly included in the table after 1986. However, it would not likely change the conclusion that participation will pay for most farmers.

A second set of Tables 3 and 4 without the unknown data filled in is attached for those who may wish to calculate alternative budgets for 1986-90.

Table 3
Prospective Returns to Participation in the Feed
Grain Program in 1986-90 Under Assumed Conditions[a]

				Years		
	Unit	1986	1987	1988	1989	1990

Participant

Gross from the market

Price of corn (or loan)[b,c]	$/bu.					
x yield	bu.					
x (100% - % AR + DV)[d]		.80	.65			
= gross per base acre	$					

Diversion payment

Payment rate	$/bu.	.73	2.00			
x program yield	bu.					
x % DV		.025	.15			
= gross per base acre	$					

Deficiency payment

Target price	$/bu.	3.03	3.03	2.97	2.88	2.75
- price of corn (or loan)[b]	$/bu.	1.92				
= deficiency payment rate	$/bu.	1.07[e]				
x program yield	bu.					
x (100% - % AR + DV)		.80	.65			
= gross per base acre	$					

Total gross per base acre	$					

Variable Costs

per planted acre	$					
x (100% - % AR + DV)		.80	.65			
= per base acre	$					
Per conserving use acre	$					
x (% AR + DV)		.35	.35			
= per base acre	$					
Total						

Net returns per base acre over variable costs	$					

Non-Participant

Price of corn	$/bu.					
x yield	bu.					
= gross per acre	$					
- variable costs	$					
= net return per acre	$					

[a]Effect of Gramm-Rudman-Hollings not included after 1986.
[b]Whichever is higher.
[c]Loan is discounted 15 cents to account for average costs of storing on and off the farm.
[d]AR = % of base in acreage reduction; DV = % of base in paid diversion.
[e]Cash deficiency payments were discounted by 4.3% in 1986 to account for G-R-H.

Table 4
Prospective Returns to Participation in the Wheat
Program in 1986-90 Under Assumed Conditions[a]

	Unit	1986	1987	1988	1989	1990
				Years		

Participant

Gross from the market
	Unit	1986	1987	1988	1989	1990
Price of wheat (or loan)[b,c]	$/bu.					
x yield	bu.					
x (100% - % AR + DV)[d]		.75	.725			
= gross per base acre	$					

Diversion payment
Payment rate	$/bu.	1.10				
x program yield	bu.					
x % DV		.025				
= gross per base acre	$	1				

Deficiency payment
Target price	$/bu.	4.38	4.38	4.29	4.16	4.00
- price of wheat (or loan)[b]	$/bu.	2.40				
= deficiency payment rate	$/bu.	1.91[e]				
x program yield	bu.					
x (100% - % AR + DV)		.75	.725			
= gross per base acre	$					

Total gross per base acre	$					

Variable Costs
per planted acre	$					
x (100% - % AR + DV)		.75	.725			
= per base acre	$					
Per conserving use acre	$					
x (% AR + DV)		.25	.275			
= per base acre	$					
Total						

Net returns per base acre over variable costs	$					

Non-Participant

Price of wheat	$/bu.					
x yield	bu.					
= gross per acre	$					
- variable costs	$					
= net return per acre	$					

[a]Effect of Gramm-Rudman-Hollings not included after 1986.
[b]Whichever is higher.
[c]Loan is discounted 15 cents to account for average costs of storing on and off the farm.
[d]AR = % of base in acreage reduction; DV = % of base in paid diversion.
[e]Cash deficiency payments were discounted by 4.3% in 1986 to account for G-R-H.