ANALYSIS OF THE 1986 GOVERNMENT PROGRAM FOR

WHEAT AND FEED GRAINS

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If the Gramm-Rudman provision of the new Balanced Budget Act remains in effect, program values and the values reported in this Current Report may be reduced 4.3%. Further details of the wheat and feed grains programs may be found in Current Report 332.

Sign-up for the 1986 wheat and feed grains programs begin in early March. While the new farm bill froze the target prices at the 1985 level, the Secretary of Agriculture has used his discretion and implemented the maximum cuts for the loan rates and increases in set aside acreage. Thus, there will be special opportunities to obtain a deficiency payment of $1.98 for wheat and $1.11 for corn and limit or reduce production costs.

Factors producers should consider in deciding whether to participate are: 1) harvest price and yield expectations, 2) planted compared to base acres, 3) program yield compared to expected yield, 4) production costs for harvested acres versus non-harvested acres, 5) potential for additional income, and 6) establishing additional base acres. These factors may influence the decision. Each producer must evaluate each situation separately.

Table 1. Summary of the 1986 Wheat and Feed Grains Program

	Wheat	Corn	Barley	Sorghum	Oats
Target Price ($/bu)	4.38	3.03	2.60	2.88	1.66
Loan Rate ($/bu)	2.40	1.92	1.56	1.82	0.99
ARP (%)	22.5	17.5	17.5	17.5	17.5
PLD (%)	2.5	2.5	2.5	2.5	2.5
PLD - optional (%)	10	-	-	-	-

Details of Provision

Target prices for wheat and feed grains are frozed at 1985 levels through 1987 (Table 1). Formula loan rates for 1986 will be $3.00 for wheat and $2.40 for corn. However, the effective rates are $2.40 for wheat and $1.92 for corn. The portion of the payment that results from loan rate cuts below formula levels ($0.60) are exempt from payment limitations.

Wheat acreage for 1976 must be reduced 25%, of which 2.5% is at PIK diversion. Additionally, producers who planted the 1986 crop before announcement of the program and who reduce their acreage base harvested by another 10% must receive a paid diversion rate of $2.00 per bushel. Thus, the total program reduction in harvested wheat acreage for 1986 will be as much as 35%. Corn acreage for 1986 must be reduced 20%, 2.5% of that being PIK diversions.

Producers may receive deficiency payments on 92% of permitted acreage if at least 50% is planted to program crop and the 8% is devoted to conservation or nonprogram crops. Set aside acreage must be devoted to conservation uses. At the request of a state ASCS, haying and grazing will be permitted for 1986 (except during a 5-mongh period).

Program Analysis and Worksheet

A worksheet is used to illustrate the net returns associated with four alternatives. The alternatives include: 1) non participation; 2) participation in the required Acreage Reduction Program (ARP); 3) participation in the ARP and the 10 percent optional diversion (ARP + 10%); and 4) not harvesting 50 percent of the permitted acreage and receiving deficiency payments on 92 percent of the permitted acreage (50/92).

The worksheets can also be used to determine net returns from participation in the feed grain program. With feed grains, the column for the +10% diversion would not be used.

Wheat Example

Required information includes harvested acres, expected yield, ASCS program yield, expected harvest price, cost per harvested acre, cost per non-harvested acre, and program information. A summary of the program provisions has been presented in this Current Report (Table 1). You should check with the county ASCS office to see if the provisions have been changed.

For this example, expected yield was set at 32 bushels per acre with non-participation, expected yield was set at 33.6 (5% higher) for participation. The expected harvested price is $2.30.

The loan rate is $2.40 per bushel and nine months storage costs about $0.25 per bushel. This means the effective loan rate is $2.15 per bushel ($2.40 - $0.25). When calculating the participation returns, you will have a choice between the loan rate and the expected cash price. Note: IF THE EXPECTED CASH PRICE IS HIGHER THAN THE LOAN RATE MINUS NINE MONTHS STORAGE, YOU WILL MAKE MORE PROFIT BY SELLING ON THE CASH MARKET. THUS, THE EXPECTED

CASH PRICE WOULD BE USED IN LIEU OF THE LOAN. Since the expected cash price ($2.30) is higher than the effective loan rate ($2.15), $2.30 will be used to calculate the participation returns.

All calculations will result in net returns per acre. Total return is calculated on the non-participation worksheet by multiplying the expected yield (1) by the expected market price (2). Variable costs (4) are subtracted from total return (3) to determine net income (5). The value in line 5 will be compared with the net returns calculated on the participation worksheet.

In this example, the three columns are used for each of the three wheat program alternatives. The column headings can be changed to fit the situation. The values entered on lines 1, 2, 3, and 4 are the same for each alternative. In this example the values are 33.6 bushels, $2.30, $0.25 storage costs, and since the expected price ($2.30) is higher than the effective loan rate ($2.40 - $0.25 = $2.15), $2.30 is enter in line 4.

The percent of acres harvested is entered in line 5. This would be .75 for ARP; .65 for ARP + 10%, and .375 for 50/92. The percent acres harvested with the 50/92 could be .325 or .375 depending on if the producer participated in the APR + 10 program. In this example, we selected to use .375.

The ARP values will be used to show calculations. Line 6 is calculated by multiplying the value in line 1 by the value in line 4 (33.6 x $2.30 = $77.28). To convert to a per acre basis, $77.28 is multiplied by the value in line 5 ($77.28 x .75 = $57.96). This is the per acre income from grain.

Lines 7, 8 and 9 are used to calculate the income from the deficiency payment. The same values are entered on lines 7 and 8. Line 9 will contain .75 in the first column, and .65 in the second column. You have a choice of entering either .69 (.75 x .92) or .598 (.65 x .92) in the third column. Our example uses 0.69. This implies that the optional 10 percent paid deficiency was not used.

The deficiency payment per acre is calculated by mulitiplying the value in line 7 by the value in line 8 ($1.98 x 32 = $63.36). The income is converted to an acreage basis by multiplying the answer by the value in line 9 ($63.36 x .75 = $47.52).

Lines 11, 12, 13, and 14 are used to determine the diversion payment. The diversion payment per bushel ($2) is entered in line 11. The value is multiplyed by the program yield in line 12 ($2 x 32 = $64). The answer is multiplyed by the percent diverted acres ($64 x .025 = $1.60). The results are entered in line 14.

Net returns from haying, grazing or other uses of the land is entered on line 15. Total return per acre is calculated by adding the values in lines 6, 10, 14 and 15. In this example, the total return is $107.08.

Costs are broken down into cost per harvested acre and cost per non-harvested acre. Cost per harvested acre ($85) is entered in line 17. This value is multiplyed by the percent of the base acres harvested (.75), line 18. The answer is entered on line 19 ($85 x .75 = $63.75).

Cost per non-harvested acre ($25) in entered in line 20. This value is mulitplied by the percent of the base acres not harvested (.25). Cost per non-harvested acre, line 22, is calculated by multiplying the value in line 20 by the value in line 21 ($25 x .25 = $6.25). Total cost per acre is the sum of lines 19 and 22 ($63.75 + 6.25 = $70).

Net return per acre is determined by subtracting line 23 from the value in line 16 ($107.08 - $70 = $37.08). The values in line 24 are compared to the value in line 5 of the non-participation worksheet. In this example, this is -$11.40 for non-participation, $37.08 for ARP, $35.41 for ARP + 10%, and $25.19 from 50/92. The example results indicate, that without additional income from the conservation use acres, the returns are maximized by participating in the ARP program.

1986 Government Program Worksheet
(Non-Participation)

1.	Expected Yield/Acre	32	
2.	Expected Market Price/Bu.	2.30	
3.	Total Return	73.60	
4.	Variable Costs/Acre	85	
5.	Net Return/ Acre	-11.40	

1986 Government Program Worksheet
(Participation)

		25% ARP	ARP + 10	50/92
1.	Expected Yield/Acre	33.6	33.6	33.6
2.	Loan Rate/Bu.	2.40	2.40	2.40
3.	Nine Months Storage Costs/Bu.	.25	.25	.25
4.	Loan minus nine months storage or expected cash price	2.30	2.30	2.30
5.	Percent of Base Acres Harv.	.75	.65	.375
6.	Return/Harvested Ac (1 x 4 x 5)	57.96	50.23	28.98
7.	Expected Deficiency Payment/Bu.	1.98	1.98	1.98
8.	ASCS Program Yield	32	32	32
9.	Percent Base Acres Harvested	.75	.65	.69
10.	Deficiency Payment/Ac (7 x 8 x 9)	47.52	41.18	43.72
11.	Diversion Payment/Bushel	2.00	2.00	2.00
12.	ASCS Program Yield	32	32	32
13.	Percent Diverted Acres	.025	.125	.025
14.	Diversion Payment/Ac (11 x 12 x 13)	1.60	8.00	1.60
15.	Net Additional Income/Acre	–	–	–
16.	Total Income/Acre (6 + 10 + 14)	107.08	99.41	74.30
17.	Variable Cost/Harvested Acre	85	85	85
18.	Percent of Base Acres Harvested	.75	.65	.375
19.	Variable Cost/Acre (18 x 17)	63.75	55.25	31.88
20.	Variable Cost/Non-Harvested Acre	25	25	25
21.	Percent Non-Harvested Acres	.25	.35	.625
22.	Variable Cost/Acre (21 x 20)	6.25	8.75	15.63
23.	Total Variable Cost/Ac (19 + 22)	70.00	64.00	47.51
24.	Net Return/Ac (16 – 23)	37.08	35.41	26.79

331.5

1986 Government Program Worksheet
(Participation)

		25% ARP	ARP + 10	50/92
1.	Expected Yield/Acre			
2.	Loan Rate/Bu.			
3.	Nine Months Storage Costs/Bu.			
4.	Loan minus nine months storage or expected cash price			
5.	Percent of Base Acres Harv.			
6.	Return/Harvested Ac (1 x 4 x 5)			
7.	Expected Deficiency Payment/Bu.			
8.	ASCS Program Yield			
9.	Percent Base Acres Harvested			
10.	Deficiency Payment/Ac (7 x 8 x 9)			
11.	Diversion Payment/Bushel			
12.	ASCS Program Yield			
13.	Percent Diverted Acres			
14.	Diversion Payment/Ac (11 x 12 x 13)			
15.	Net Additional Income/Acre			
16.	Total Income/Acre (6 + 10 + 14)			
17.	Variable Cost/Harvested Acre			
18.	Percent of Base Acres Harvested			
19.	Variable Cost/Acre (18 x 17)			
20.	Variable Cost/Non-Harvested Acre			
21.	Percent Non-Harvested Acres			
22.	Variable Cost/Acre (21 x 20)			
23.	Total Variable Cost/Ac (19 + 22)			
24.	Net Return/Ac (16 - 23)			

331.6