FARM PROGRAM '91: Basics, Decisions, and Calculations

by

Allan E. Lines
Agricultural Economist
The Ohio State University
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Foundations for the 1991 farm program are found in three pieces of federal legislation. The underlying purposes and mechanisms of the "1985 Food Security Act" were carried forward to the new farm bill. The "Omnibus Budget Reconciliation Act of 1990", commonly referred to as the "deficit reduction act" is responsible for reducing farm program spending by $13.5 billion. The "Food, Agriculture, Conservation, and Trade Act of 1990", more affectionately known as the "1990 farm bill", contains the details of concern to producers.

BASIC FRAMEWORK

The basic structure of the '91 farm program rests on the "triple base plan". It adds measures of flexibility wanted by producers and reduced expenditures wanted by Congress.

The first base is the familiar crop base acreage from the '85 farm bill. The new law mandates 15 percent of the first base as Normal Flex Acres and up to an additional 10 percent of the first base as Optional Flex Acres. The second base is determined by subtracting the flex acres (normal plus optional) from the first base. Acres idled under the Acreage Reduction Program (ARP) is subtracted from the second base to calculate the third base or maximum payment acres. The 1991 ARP for corn is 7.5 percent of the first base. An example will help clarify the calculation. Assume the farmer elects 0 percent Optional Flex Acres.

Crop Acreage Base	100.0	First Base
Normal Flex Acres	- 15.0	
Optional Flex acres	- 00.0	

	85.0	Second Base
Acreage Reduction Program	- 7.5	

Maximum Payment Acres	= 77.5	Third Base

The 1990 farm bill specifies which of these acreages will and will not receive program benefits. ARP acreage,as in the past, will not be eligible for deficiency payments or loan protection. Optional flex acres planted to another crop and normal flex acres do not receive deficiency payments, but will, with limited exceptions, be eligible for loan protection. Maximum Payment Acreage will be eligible for both deficiency payments and loan protection. Specifics for the 1991 corn program are:

Per Bushel

Target Price	$2.75
Loan Rate	1.62
Maximum Deficiency	1.13
Expected Deficiency	.58

Actual production is eligible for loan protection. Deficiency payments will only be made for program yield.

DECISIONS

With planting time approaching, producers must decide whether or not to participate in the 1991 corn program. Partial budgets of the alternatives available will help answer the economic question – "How do I maximize profit?" A host of associated concerns not answered by economics alone and must rely upon other information.

Such concerns might include soil husbandry, use of chemicals and fertilizers, disease and insect control, other cultural aspects of crop production, and philosophical concerns about government involvement in agriculture. This brief article is restricted to providing information to assist in answering the profitability question.

Calculating the return to fixed resources for each of the following alternatives will provide information for selecting the most profitable option: (1) not participating in the program, (2) participating and planting flex acres to corn, (3) participating and planting flex acres to an alternative crop, and (4) selecting the 0/92 program.

Few producers will find the 0/92 option attractive. Limited income because of the low guaranteed deficiency payment, 58 cents per program bushel on 92 percent of maximum payment acres, will cause most farmers to quickly reject this alternative.

The answer to the profitability question can be different, depending upon what a farmer determines to be his/her best answers to the questions implied in the above calculations.

Using an example that closely represents the situation for many producers (110 bushel program yield, 120 bushel actual yield, $160 per acre variable cost, and planting corn on flex acres because of higher net earnings) results in a $2.60 break-even corn price. When market price is below $2.60 profit is greater by participating in the program. If market price is greater than $2.60 profit is greater by not participating. The outlook for 1991 suggests that prices will average below $2.60 per bushel.

CALCULATIONS

Minimal information is needed to calculate returns to fixed resources (return over variable costs) for each of the other alternatives. The farm program specifies some of the needed information: target price, loan rate, ARP percent, flex percentages, base acres, and program yield. Each producer must know or estimate actual corn yield, expected market price for corn, expected deficiency payment, and expected net return per acre for alternative crops.

Step 1. Calculate returns to fixed resources if you do not participate in the program. Determining total sales and subtract total variable costs. Use the same market price and variable costs for this and following steps.

Step 2. Decide what to produce on "normal flex" acres if the program option is elected. Calculate return to fixed costs per acre for corn and other crops to be considered. Use market price and 0 deficiency payments. You may want to use a higher yield per acre for corn than what was used in Step 1. Some of your lower yielding land could go into the ARP. Elect to flex plant the crop with the highest net per acre. Check your calculations closely, but it will be probably be difficult to budget much of a difference between soybeans and corn.

Step 3. Calculate returns to fixed resources per acre for program corn. Use program yield and expected deficiency payment per bushel to calculate the expected deficiency payment per acre. Add this to the Step 2 calculations for corn to determine the return to fixed resources per acre for program corn.

Step 4. Calculate the variable cost of maintaining the ARP acres.

Step 5. Multiply the greatest net per "flex" acre from Step 2 by the number of flex acres. Multiply the net per acre from program corn from Step 3 by the acres of program corn. Add these figures together and subtract the number calculated in Step 4.

Step 6. Compare the total returns to fixed resources from participating in the program (Step 5) with that calculated if you don't participate in the program (Step 1). Select the option with the greatest return.