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WEEKLY OUTLOOK

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TO SWITCH OR NOT TO SWITCH

Public Law 100-387 (The Disaster Assistance Act of 1988) contains a provision allowing participants in the 1989 acreage reduction program for wheat, feedgrains, cotton, and rice to plant a portion of the permitted acres for these crops in soybeans or sunflowers. Switching of permitted acres to soybeans or sunflowers will not reduce the farm's base acreage of the program crops. Not less than 10 percent or more than 25 percent of the permitted acreage may be switched. The Secretary of Agriculture is to decide the allowable percentage, but that determination has not yet been announced.

The Act further states that the Secretary shall establish a sign-up period in which farmers must state their intentions regarding the use of the increased planting provision for soybeans and sunflowers. Based on those intentions, the Secretary will reduce the percentage of permitted acres if it is determined that the increased acreage would result in an average soybean price below 115 percent of the loan rate for the previous crop year. That price calculates to $5.49 per bushel.

Midwestern farmers who are considering planting a portion of their corn-permitted acres in soybeans must evaluate a number of agronomic and economic factors. The economic evaluation is complicated by the uncertainty about average yields and prices for the 1989 crops of corn and soybeans. One approach is to assume average yields for corn and soybeans, use the target price of $2.84 per bushel in calculating the gross returns from an acre of corn, and then calculate the break-even price for soybeans. This procedure is further complicated if the expected average yield of corn is below the program yield for that farm. In addition, the difference in cost of producing an acre of corn versus the cost of producing an acre of soybeans must be estimated.

An Example

The average corn yield in central Illinois from 1985 through 1987 was 145 bushels per acre. The average soybean yield was 45 bushels per acre. Based on Illinois Farm Business Records for central Illinois grain farms, the per-acre cost to produce and store corn in 1987 was, on average, $72.00 greater than the cost to grow soybeans. Considering only variable cost factors, the cost difference was $58.00 per acre.

An average corn yield of 145 bushels sold at the target price of $2.84 per bushel would result in a gross return of $411.80 per acre. To generate an equal return, the average soybean price for the 1989 crop would have to be $7.55 per bushel [($411.80 - $72.00) ÷ 45 bushels)]. If only variable costs were considered in the analysis, the average soybean price would have to be $7.86 per bushel.

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The same analysis for southern Illinois generated a break-even price for soybeans of $7.78 per bushel when all costs were considered and $8.15 per bushel when only variable costs were used. For northern Illinois, the break-even price for soybeans was $7.24 per bushel when all costs were included and $7.52 per bushel when only variable costs were considered.

In this example, the gross return from corn would be reduced if the program yield were less than the expected yield of 145 bushels. Those bushels in excess of the program yield will likely be sold for less than the target price. If the difference, for example, was 10 bushels per acre and those 10 bushels were sold for $2.40 per bushel, the gross return would be reduced by $4.40 per acre. For the central Illinois example, the break-even price for soybeans would be reduced by 10 cents per bushel.

The difference in cost per acre to produce and store corn and soybeans may differ substantially among farms. The tenancy arrangement will also affect cost differences. Landlords sharing only variable costs of production, for example, will likely have a smaller cost difference between corn and soybeans.

The analysis for Illinois, based on average yields and costs, suggests that prices for the 1989 soybean crop will have to be substantially above the current level to encourage an increase in soybean acreage at the expense of corn.

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