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Management Considerations Before Adding More Corn Acres

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High cash prices for corn at the end of the 2006 growing season have more South Dakota farmers thinking about growing continuous corn or adding more corn acreage. There are both risks and benefits to any change in the enterprise mix, however, so you will need to examine all angles before growing corn on corn or adding more corn acres.

Costs and Returns

Expanding corn acreage is more than just a short-run examination of market prices and costs of production. Certainly, high market prices can make producing more corn a profitable venture. However, there is more to the crop production decision than just selling price.

Additional acres of corn can be planted only if fewer acres of other crops, including pasture, are planted. Corn will have higher tillage costs than many other crops, especially in the first year of production if corn is planted on former pastureland or on land that had been enrolled in the conservation reserve program.

Corn acreage may also require higher fertilizer costs than other crops; this may be especially the case for continuous corn. It also can be expected that additional corn acreage will lead to higher expenses for crop drying and handling.

Storage considerations may be important. For example, replacing an acre of soybeans with an acre of corn will create the need to handle three, four, or more times the

number of grain bushels. If corn is planted on crop ground used for corn in prior years, there can be a change in the management of crop insects and diseases.

Crop labor allocation and management are additional considerations. In a diversified crop mix, labor spreads over a longer period of time since not all crops have the same planting and harvest dates. The planting season time frame becomes narrower if more acreage is given to corn rather to a mix of other crops. The time frame for harvest also shortens. Some producers may find they need to hire additional seasonal labor to complete harvest in a timely manner.

Most of these considerations have focused on the cost aspects of a corn enterprise budget. You also have to think through the income side.

Crop income is derived primarily from crop yield and commodity price. Producers raising continuous corn may find that crop yields are more variable and harder to predict. Yield variability plays into crop insurance decisions (other factors of the crop insurance decision will be coverage levels and premiums to be paid).

Corn prices may be more variable than prices received for other crops. That means budgeting carefully to ensure that planting corn on additional acreage will be profitable within the anticipated price range. With the potential for greater variability in both yield and price, you will spend more time—and skills—in marketing management.

Equipment Considerations

Since the “window of opportunity” for both planting and harvesting corn will be narrower than if no changes are made to the enterprise mix, you may need larger equipment to complete operations in a timely manner. There is a flip side to that: If the change in enterprise mix will result in the production of only corn, you may be able to get rid of some equipment or machinery no longer needed. Costs and changes in equipment need to be taken into account.

Land Rent

Post-harvest 2006 anecdotal evidence suggests that landlords believe that 2007 corn production will be more profitable than 2006 corn production. Consequently, they may desire to increase the rent charged for crop ground. You and your landlord may need to work out a new rental arrangement that offers some flexibility and protection from price and yield fluctuation for both of you.

Findings from the 2006 SDSU land value and cash rent survey showed that from 2001 to 2006, land values increased at more than twice the rate of increase in cash rents. Thus, cash rates of return to farmland have declined for landlords. Based on the expectation that corn prices and rate of return to farmland ownership will return to historical average levels, you can expect that rental rates will increase for 2007 regardless of the decision to increase corn acreage. You will need to include higher land use charges in all profitability calculations.

Supporting Agribusinesses

If you add more corn acreage to your enterprise mix for 2007, your relationships with your supporting agribusinesses could change. These issues need to be addressed ahead of planting.

Some producers, as members of a processing cooperative, will need to maintain enough production of, for example, soybeans, to meet the delivery obligations that are part of their membership agreements. There will also be issues such as fall storage and how limitations of both on-farm and commercial storage may affect the planting decision.

You would also be wise to talk ahead of time to your input suppliers. If other farmers also intend to plant more corn acreage, they too will be making additional

demands for specific crop production inputs. There may be a shortage of those goods just when you need them.

You are always encouraged to discuss any intentions to make significant adjustments in your operation with your agricultural lender, including the intention to plant more corn acreage for the upcoming year, for all of the reasons discussed above. You may require additional operating capital. The capital needs of planting more corn may alter capital availability and risk mitigation strategies that lenders may recommend.

Cost of production budgets developed by SDSU Economics Extension show that planting corn on corn will require approximately \$75 an acre more in operating capital. For a 1,000-acre farm currently on a 50/50 corn/soybean rotation, planting all available acres to corn would require an additional \$37,500 in operating capital. This additional capital need may need to be financed through the growing season.

However, at current prices and assuming no yield drag, corn returns almost \$100 an acre more than soybeans. Some producers and suppliers have reported that producers using the stacked trait corn seed have not seen the yield drag on corn/corn rotations.

Based on cost of production estimates, price and return would favor the corn on corn rotation. However, with most cropping decisions, weather at planting and the availability of seed, fertilizer, and capital will have the final say on planting decisions.

Partial Budget

For many producers, the decision to plant additional acreage to corn for 2007 will not require much reorganization of time and resources. For producers limited by a fixed set of resources, it may be possible to use these resources in more than one way in response to anticipated profit levels. In these situations, a partial budget that evaluates the economic effect of minor adjustments in some portion of the business is helpful.

Any change in the operation of the farm business should achieve one or more of the following:

1. Eliminate or reduce some costs.
2. Eliminate or reduce some returns.
3. Cause additional costs to be incurred.
4. Cause additional returns to be received.

An example format for a partial budget is below. The example is based on substituting one acre of corn for one acre of soybeans.

Date: Spring 2007			
Description of analysis: Plant more crop ground acres to corn			
Increases in net income		Decreases in net income	
Increase in income		Decrease in income	
Sell more corn		Sell less soybeans	
140 bu X \$2.25 =	\$315.00	35 bu X \$5.85 =	\$204.75
Total increase	\$315.00	Total decrease =	\$204.75
Decrease in cost		Increase in cost	
Plant less soybeans =		Plant more corn =	
	\$105.00		\$180.00
Total decrease =	\$105.00	Total increase =	\$180.00
Increase in net income =	\$420.00	Decrease in net income =	\$384.75
(Increase in income plus decrease in cost)		(Decrease in income plus increase in cost)	
Change in net income		\$15.25 per acre	
(Increase in net income plus decrease in net income)			

The change in net income of \$15.25 means that, given the assumption of prices and costs used in the example, by planting one more acre of corn and one less acre of soybeans, the farmer would realize \$15.25 more income.

You are encouraged to use the enterprise budgets at <http://econ.sdstate.edu/Extension/Tools/2007%20Spring%20Crops.xls> to help you prepare an estimate of the financial impacts of making changes to the enterprise mix of your operation. Within the spreadsheet, there is a “tab” for each of three major spring crops: corn, spring wheat, and soybeans. You type values into the “Your Farm Estimates” column.

Financial returns to management and labor can be compared on a per-acre basis, and generally, the crop that provides the greatest return to labor and management will be the crop grown on the majority of available acres.

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