



# Ag Decision Maker

## A Business Newsletter for Agriculture

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### Tracking farm profitability

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The profitability of producing corn and soybeans varies greatly from year to year and within each year. To track this variability we have developed typical cash-grain farming operations that represent farms in Central and Northern Iowa. We track profitability by comparing the break-even cost of production to the selling price for corn and soybeans. The comparison is shown on a monthly basis throughout the marketing year (Sept. – August). This shows the profit (loss) per bushel the farmer could have received if the crop had been sold in that month.

The analysis is provided at the Crop Decisions – Costs and Returns section of the Ag Decision Maker Web site.

#### Farm types

The cost of crop production varies greatly depending on whether the farmland is owned by the farmer or cash rented from someone else. To show these two extremes, we have created a farming operation where all of the land is owned (debt free) and another where all of the land is cash rented. These reflect the extremes between ownership and rental. To reflect a more typical Iowa operation we created a third farming operation where 40 percent of the land is owned and the remaining 60 percent is rented. We also included \$500 of farmland debt per acre on the owned land (average land indebtedness for Iowa farms).

#### Analysis years

The analysis includes the crop production years of 2007, 2006, and 2005. The marketing year for each crop year starts on September of the crop year and extends through August of the following year. For example, the marketing year for the 2006 crop year started on

September of 2006 and extended through August of 2007. During each month of the marketing year *continued on page 2*

**Handbook updates**  
For those of you subscribing to the handbook, the following updates are included.

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**Dividing Business Income – C4-16** (3 pages)

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the profitability is shown by the difference between the break-even cost of production per bushel for each farmer and the monthly average crop selling price.

### Updated monthly

The analysis shows the crop selling price, production cost per bushel and net return per bushel for each farmer for each month. Although the marketing year's for 2005 and 2006 are over, the marketing year for the 2007 crop is just beginning. As we progress through the 2007 crop marketing year, we will add the past month's breakeven cost and average crop selling price, so the analysis is always current.

### Cost Assumptions

Except for the differences between the amount of farmland owned and rented, the three farming operations are virtually identical.

- 1) Each operation has 800 acres of cropland (land productivity is the same for each farm).
- 2) Each operation raises only corn and soybeans in a 50/50 rotation.
- 3) Each operation has the same yields, which are typical of Iowa for that year.
- 4) Each operation has the same production input costs. The production input costs are changed each year to reflect increases in costs from the previous year. Input costs are taken from *Information File Crop Production Budgets*.
- 5) Although each operation pays the same cash rental rate, it is changed each year to reflect typical rates. The rental rates are based on *Information File Cash Rental Rate Survey*.
- 6) The money to purchase production inputs is borrowed at typical lender interest rates.
- 7) Each operation has the same machinery line (typical investment per acre for Iowa cash-grain farms).
- 8) Each operation has the same machinery indebtedness.
- 9) Each farm operator has the same level of managerial skills.
- 10) Money is borrowed and interest is charged on the value of the grain inventory for the length of time the grain is held after harvest. So the break-even cost increases as the marketing year progresses due to accrued interest.

Although the cost assumptions are believed to be typical of Central and Northern Iowa cash-grain farming operations, the coefficients can be changed to reflect special circumstances. If a coefficient is changed, the analysis and the graphs will automatically reflect this change.

### Conclusion

The purpose of the analysis is to track the monthly profitability of corn and soybean production in Iowa using three hypothetical cash-grain farming operations. The analysis will always be current because it will be updated each month.

In coming months we will also start tracking the monthly profitability of livestock production and the monthly profitability of ethanol and bio-diesel production. Because the output of the crop production sector is the feedstock for the livestock and bio-fuels sectors, it will show how corn and soybean prices will allocate profits (losses) among these three sectors of Iowa's agricultural economy.



## Managing the margins

by James Jensen, Iowa State University Extension Farm & Business Management Specialist, [jensenjh@iastate.edu](mailto:jensenjh@iastate.edu)

These are certainly exciting times for people involved in agriculture. Farmers have expressed concern for years that prices for their products were too low while the price that they paid for production expenses was too high. Indirectly, they were referring to the margin but the comments were usually directed at the relative price levels of the products. They knew they were price takers and not price makers and could do little to change the situation. Farmers have traditionally looked at controlling the level of their expenses as the only way to compete domestically and internationally. Some types of farmer production expenses allow for farmer manipulation more easily than others. Farmers do have control over what they choose to pay in cash rent or at what price they will purchase land and building resources. They also have control over the type of farm equipment they purchase as related to brand, size, function, and serviceability. Farmers have much less influence or no influence on the price that they must pay for herbicides, fertilizers, seed, and fuel. Quantity purchases or seasonal timing do make some differences, but the general price levels are well beyond the control of the individual farmer.

In recent years, farmers have had the opportunity to exert some control on the price that is received for the commodities they sell by growing specialized crops under contract for small premiums over the general market price. They have also had the opportunity to use more flexible marketing programs that could add or subtract from their usual marketing practices. Some of these special contracts require activities that raise the cost of production for the products in addition to raising the price received. The bottom line figure that needs to be watched is the "margin" between the cost of production and the revenue generated by the enterprise. When the prices paid for products or the cost of purchasing inputs changes radically, the margin swings may take a while to get back to long term expectations for returns that allow producers to continue to use that enterprise. Farmers have traditionally been satisfied with lower rates of return on their resources than have other segments of the economy. This has kept many of the large companies that depend on farmers from integrating down to the farm level. It has been easier for

them to raise input prices to the point that the market will bear and to keep corn and soybean prices at the lowest levels required to obtain their raw materials. As their expense structure changes, they pass up to the final product those cost that they can not extract from their resource providers.

So what does this current demand increase for row crops mean for farm producers? It means that in the short run, margins are getting larger and crop farmers have more cash. Livestock producers are struggling with higher production expenses related to raising meat and milk. Their reaction has been to look for ways to change the animals' diet to include cheaper feedstuffs. It will take a little time for everyone involved to adjust to the large changes that we have recently been experiencing in agriculture, but eventually the margin will return to a more normal level. The problem is that if the general price level remains higher, the risk to the farm producer is also much higher.

Grain farmers are now seeing huge increases in their cost of production. Suppliers are working on adding part of the farmers increased margins to their bottom line. The increased margins for grain farmers are attributable to the bio-economy emphasis. Profit margin projections for the 2008 crop year are still good but look to be half of what was there in 2007. Contrary to the feeling that things are beyond the individual farmers' control, farm producers can do a lot to control their competitive position for the upcoming years.

Farmers need to start working on the things that they can exert the most control. The first decision area relates to how they use their increased amount of cash. Many react by spending the increased money in a manner that will reduce their tax liability the most. Although tax planning is important, it should not drive the use of excess cash. It obviously is a good time to update machinery purchases that have been deferred during leaner years, however care should be taken not to encumber future farm production cost with increased debt financed purchases. Tax deductions help with present income downsizing but often prove troublesome in later years when the tax breaks have

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been used up and the debt still remains. Size equipment property for the operation and use as much cash as possible for the purchase.

Another area that needs attention is the risk associated with paying high cash rents. Make sure that product selling prices are locked in to allow for rental payments that still leave a profit margin for the producer. Flexible leases may help share the risk and may result in a more long term relationship with owners while reducing the need for yearly negotiations. A similar philosophy can be applied to land purchases based on the operations cash flow ability to make the payments.

Your marketing program is very important as prices and risk levels rise. Historic basis levels and relationships have changed and continue to evolve. Time needs to be spent comparing markets continuously. Tools like crop revenue insurance are available to help reduce risk exposure. Higher risk levels mean less room for forgiveness when mistakes or judgment errors occur. On the input side of the farm operation, make sure that the decisions relating to fertilizer levels and pest control are based on the most efficient production methods. It is easy to pad needs or try unproved things when there is higher income. The emphasis should still be on the margins, remembering that

maximizing profits when things are good is easier than trying to find a profit when things are less than good. The Ag Decision Maker website has a variety of spreadsheets designed to help producers fine tune production decisions.

Paying down debt with excess cash flow makes your operation more sustainable over time. The bottom line is that producers need to know their cost structure so they can plan the operation to maintain margins. Too often people get caught up in paying the going rate or fertilizing the way that everyone else does. Fertilizer and other inputs can come in many sources and should be evaluated for the least cost method and product form. Individual farmer production costs vary tremendously. Each producer needs to analyze the situation and procure a profit margin that allows their business to thrive. The result may and probably should look different for each operation. The point is that in dynamic times, farm producers need to continue to do what they do best. Farmers have a reputation of being innovative and they need to continue to "think outside the box" and find ways to maintain profitable margins. Having good data and analytical tools helps make things happen.

## Value-added business success factors -- the role of investor attitudes and expectations

*by Don Senechal, Founding Pricipal, The Windmill Group, F. Larry Leistriz, Professor, Department of Agribusiness and Applied Economics, North Dakota State University, Nancy Hodur, Research Scientist, Department of Agribusiness and Applied Economics, North Dakota State University*

(First in a series of six)

There has been a surge of interest in farmer-owned business ventures that seek to capture additional value from commodities past the farm gate. Some of these ventures have been very successful, some marginally successful, and some have failed. Supported by funding from the Ag Marketing Resource Center at Iowa State University, we conducted in-depth interviews with farmer-owned businesses to determine the key factors that influenced the relative success or failure of these ventures. A better understanding of why some ventures succeeded while others failed provides valuable insight for the success of future farmer-owned businesses. This article focuses on the role of investor attitudes and expectations in business success.

### Research Method

To identify factors having the greatest impact on the success or failure of farmer-owned business ventures, a cross-section of seven farmer-owned commodity processing businesses formed since 1990 in North Dakota, South Dakota, and Minnesota were selected. Extensive interviews were conducted with individuals who played, or continue to play, an important role in the formation and operation of the business. This included leaders in the formation of the business, key members of the management team, selected board members, lenders, local leaders and others.

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### Research Results

A common theme in the genesis of farmer-owned business ventures was the frequent connection with a commodity group or grower association. Often key leaders of the venture were active in commodity or grower associations.

**Improve Farm Prices** -- Typically the motivation for the venture was to improve commodity prices rather than generate a return from the business investment. In fact, the idea of forming a farmer-owned business often arose only after efforts to attract an established processor to the area had failed. The grower-member's preference for higher commodity prices rather than business dividends was quite marked and sometimes led to conflicts within the business. The failure of at least one venture was attributed, in part, to grower contracts that were arguably too generous.

**High Pay-out Expectations** -- In cases where member investment returns were distributed through end-of-year 'value-added' payments, farmer-investors sometimes had unrealistic expectations of the level of returns. Thus, the board of directors and management faced demands from the farmer-investors for early and substantial pay-outs that were sometimes in conflict with the organization's need to retain earnings to build reserves or pay down debt. Members using borrowed funds to buy their shares likely added to the pressure for substantial pay-outs. Realistic member expectations regarding the potential business profits are critical to the success of farmer-owned business.

**Investment Expectations** -- A successful equity drive is the first hurdle faced by all farmer-owned ventures. At least one individual from each business we interviewed emphasized the importance of having an "organizing board" comprised of well respected community and business leaders, as well as respected producer investors. The stature of this board was considered to be one of the most important factors in the success of the equity drive.

The recent success or failure of other farm-owned businesses also appeared to have a great deal of influence on producer attitudes and willingness to invest. Attitudes toward investment often appeared to be based more on emotion than on a project-specific feasibility analysis. Investment decisions must be made on sound business principles, not emotions.

**Multiple Investment Objectives** -- Investors often have multiple objectives or motivations. In addition to personal economic benefits from increased commodity prices or investment returns, many investors are motivated by a desire to promote local economic development or by pride of ownership. These investor motivations can make site selection and other decisions difficult. Several of the organizations interviewed reported that plant siting decisions, while always difficult, can be complicated by parochial influences.

An example was a community that was the runner-up location for what turned out to be a very successful farmer-owned business. Regardless, the leaders and farmer-investors from the community were eager to establish a processing operation in their community and set out to do so. The business failed within a few years. When the desire to locate a business in a specific community supersedes sound business decisions, the likelihood of success can be seriously compromised.

Another example of multiple investment objectives was resolved when investors unhappy about the site selection were offered a refund of their investment. The refunds resolved a dispute that threatened to derail the entire project and the remaining investors and board members were able to move forward as a united group. Multiple motivations can complicate the effort to launch a new venture. But an awareness of these alternative motivations can help to mitigate future conflicts.

**Shared Business Vision** -- A shared vision of the business venture's goals and priorities by management and the board of directors is critical. It can have a profound effect on business viability. For example, management may see a need to reinvest to grow the business in order to insure long term viability whereas the board may be sensitive to members' desire for substantial pay-outs from the net proceeds. The vision for the business is something that should be discussed very early in the process and prior to recruiting the management team. Regardless of what the shared vision looks like, it is critical that management and the board of directors have a compatible vision of the future of the business.

*(Next article – the role of financial structure and performance)*

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**Internet Updates**

The following updates have been added to [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm).

**Understanding Farm Business Transfers – C4-10**

**Planning your Future – C4-11**

**Critical Success Factors – C4-12**

**The Transfer Process -- C4-13**

**Transferring Management -- C4-15**

**Examining Your Choices -- C4-41**

**Wage and Incentive Agreement -- C4-42**

**Enterprise Operating Agreement -- C4-43**

**Farm Business Operating Agreement -- C4-44**

**Developing Good Family Business Relations -- C4-70**

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**Making Family Business Decisions -- C4-72**

**Designing Business Teams -- C4-73**

**Developing Capable Managers -- C4-75**

**Keys to Success -- C4-76**

**Methods of Transferring Ownership -- C4-80**

**Income Tax Considerations -- C4-81**

**Transferring Breeding Livestock -- C4-83**

**Transferring Crops and Market Livestock -- C4-84**

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