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The future of technology in projecting dairy financial results

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Technological advancements are all around the dairy farm these days. Whether it be robotic milking systems, sire selection or ventilation systems, there has been a wave of new technology for dairy farms to take advantage of. With this influx of new technology, one of the key elements that has somewhat been overshadowed or under-utilized is the use of technological advancement in the area of projecting financial results.

Why has this been overlooked?

A large percentage of dairy producers have not embraced, understood or shown interest in the ramifications and impact of financial management on their dairy; other than they want to make sure that the lender will provide the cash for the next project or sustain the existing operation during periods of low milk prices. I realize that is a very heavy statement. But, until dairy producers acknowledge this fact, it may be difficult for them to latch on to the latest financial technological tools. As a case in point, if you go to nearly any dairy trade show, just watch where the dairy producers gravitate to. You will generally see the largest crowds of producers at booths that either have some sort of operational piece of equipment or are directly related to key operational and animal husbandry tasks on the farm. Milking equipment, building components, and farm equipment companies gather a lot of attention, as do semen and parlor supply companies. Financial management booths do not draw the same crowds. I have been an exhibitor at various dairy trade shows for nearly ten years and have seen this first-hand.

Historically dairy farming has been much more about operational knowledge and understanding than it has been about financial management. Part of this stems from the fact that ultimately milk is a commodity; and there has always been a market for the milk product, albeit the prices may fluctuate significantly. Unlike most other businesses in the United States that have to create or manufacture a product or service, and truly market that product or service to develop a customer base to remain in business, the commodity nature of milk has created a different business management mentality.

Everything goes full circle!

As the dairy industry has evolved, dairy farms have grown in size. This increased size has created an impact on a number of other areas. More cows create a need for more facilities, more equipment, more employees, more feed that needs to be sourced, more manure to be disposed of, etc. - you get the picture. Eventually all of that means that more capital (real dollars to fund all this growth) is needed. The dairy producer either must have earned and saved that capital from prior years' operations or must be able to secure the capital from other sources in order to grow. When a dairy producer has to rely on other people's money to finance the operation, it should fully expect that the "other people" (primarily lenders) will have questions about how the dairy is going to be financially successful and ultimately pay back the money within a reasonable timeframe, and with a corresponding interest rate for the risk involved.

That last point is exactly why dairy producers should become much more interested in tools for financial projection management. While financial success has played a role in the past, it is even more critical today in ultimately determining if a dairy producer remains in business or not. With the increase in investment per cow, producers need to evolve in their financial management process. The dairy operator of the future will need to understand an income statement and balance sheet, as well as understand the best sire mating decision and the best time to cut alfalfa. AND THE STAKES ARE MUCH BIGGER! The negative impacts of not knowing where the operation is headed financially can be much more catastrophic than not making the right sire mating decision. Put more clearly, if the operation misses out on a top notch sire in its breeding program, or even chooses a silage corn seed hybrid that is not at the top of the class, it may suffer from the effects of those decisions; but neither of those will likely cause the operation to completely implode. However, if the operation fails to understand and project where it is headed financially, it very easily could result in the operation's ultimate demise. The folksy, romantic view of dairy farming as a "way of life" is no longer the case for most all operations in the United States at this time unless an operation has some special circumstance related to it. That means that nearly every dairy farm operation is operating as a business – so just like any other business, the owners need to understand their current and projected financial results.

You are not alone

The first step for a dairy producer is to realize that he or she needs to have an awareness of financial management. That does not mean that every producer has to be a Certified Public

Accountant to oversee the business. Like any successful Chief Executive Officer of a large company, it is most important for the dairy producer to manage and understand key facets of each component of the operation and ultimately utilize key people to fill the gaps for the overall operation. While a dairy operation owner may know how to artificially inseminate or milk a cow, he or she will likely employ other people to perform those functions for the operation. The same holds true for financial management. As mentioned earlier, the stakes are a little more involved, so it is critical that the dairy operator utilize knowledgeable financial advisors or programs (if necessary) to supplement their own financial management. The United States dairy infrastructure is evolving with a growing number of people and programs to fill this need.

There are a number of recent start-up companies that fill some key niches related to this. There are a growing number of phone applications that can provide some key production information via display or text. A number of financial consultants across the country have developed various levels of programs to help their customers understand certain financial metrics and projections.

A good comprehensive system

The dairy producer's lender may have asked for a budget. The dairy producer may have even used a budget for their own purposes in the past. Or they may even use a financial consultant to help them create a budget once a year. Ah, but in any regard that budget can be outdated shortly after it is created. While that is correct, it is not a reason to abandon the process. It is a reason to create a better process.

In addition, what about all the other decisions that the dairy producer makes throughout the year – such as price risk management to contract milk or feed ingredients, or buy options to protect prices, etc.? Shouldn't those be factored in somehow too? How about changes to operating expenses? What happens if rations change due to growing crop shortages, pay raises are made that were not anticipated when the original budget was made, unexpected repair bills occur or new found income is realized (such as a government program tweak)? For all of these reasons, it is critical that the dairy's process has the ability to be flexible and is able to handle all these circumstances (and more). It should be able to provide the owner(s) with real time data to make informed decisions. Those decisions should be able to be made based on monthly, quarterly or annual information.

A dairy producer's comprehensive projection system should be highly reliant on the real time moving parts, with a backdrop of historical context. The following is a summary of these two areas:

Historical Context:

- Operating Income and Expenses
- Milk Basis
- Milk Components and Quality
- Milk Production Per Cow Per Day – Both As-Is and Component Adjusted
- Internal Crop Yields

Examples of Important Real Time Moving Parts

- Projected Milk Production Per Cow Per Day – Both As-Is and Component Adjusted
- Milk Component Levels
- Milk Basis (Incorporating the changes in components and general increases/decreases for premiums and overall price)
- Class III and Class IV Base Milk Prices
- Rations (very rarely will the exact same ration be fed to all groups for a full year)
- Feed Prices (every feed ingredient will likely have price changes throughout a 12-month period)
- Number of Cattle
- Expected Crop Yields
- Cull Cow Prices
- Bull Calf Prices
- Loan Structure Changes to Principal and Interest
- Employee Costs
- Repairs and Maintenance

- Other Operating Income and Expenses
- Contracts Executed to Sell a Portion of Milk Production at a Set Price
- Options Contracts to Set Minimum or Maximum Prices for Milk or Feed Ingredients
- Cash Contracts to Fix the Price of Certain Quantities of Any Feed Ingredient

Furthermore, the real time moving parts should be able to be adjusted at any time and have the dairy's results adjusted immediately. When properly implemented, a dairy's system ideally should be able to provide real time projections, with a high degree of reliability, for each month at least 12 months into the future. If desired, the dairy producer may want to be able to go beyond 12 months, understanding that commodity prices farther than 12 months out may have more variability.

Ideally the system will somewhat resemble the dairy operation's internal financial statements – meaning it should use the same income and expense accounts. In addition, it is important for the dairy producer to have the system provide information in a manner consistent with his or her decision making style if possible.

The use of information technology can make these projections work seamlessly when properly established. As mentioned earlier, if the dairy operation does not have the time or expertise to design programs themselves, the dairy should consider using a knowledgeable industry specialist. The information also should be readily available in formats that are easy for the dairy producer and his or her team to read and understand.

The end result!

Data and information have become crucial for nearly every industry and business in the USA. Dairy operations are no different. While operational management remains a very important piece of every operation, overall financial management is critical. The level and sources of capital involved for most operations require a more clearly defined need for accurate projections. And, since the dairy owner themselves have the most at stake, it should be important to them. Fortunately, there are industry partners who have helped fill the need and can assist dairy operations in this very important pursuit.

About the Author

Mark Linzmeier is a Certified Public Accountant and owner of MARGINSMART and Linzmeier Business Solutions, LLC. He grew up on a dairy farm and has extensive career experience in dairy farm management, agricultural lending and executive management experience having served as Executive Vice President of Smithfield Beef Group. He developed and manages the dairy industry's leading financial projection program, MARGINSMART, which provides real time projections for dairy operations across the country. MARGINSMART is customized for each customer and updates market prices every 10 minutes. As a CPA, Mark also prepares year financial statements for dairy operations across the country. mark@marginsmart.com

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