

# Dairy Profitability Starts with a Roadmap

Creative, out-of-the-box and innovative are optimistic words one might use to describe the way dairy producers have managed finances in recent years. After years of low milk prices, many dairy producers have changed the way they do business and altered their mindset to continue milking cows for a living. The silver lining in this storm cloud? There is light at the end of the tunnel and measures they took to survive will position dairy producers to capitalize while milk prices are improving.

So, what does a financial advisor recommend for this challenging dairy environment? What can dairy producers do today to better their fiscal situation down the road?

“First, look at your financial picture from a broad, overall perspective to see whether you are converting variable inputs into profitability and using fixed costs efficiently,” said John Lehr, a farm business consultant with 30 years of experience and now vice president of Farm Credit East in Cooperstown, N.Y. “Then use a looking glass to compare performance of your farm to your peers for key benchmarks. Identify limiting factors, strengths and opportunities for improvement. From here, develop a ‘no excuses’ action plan and make sure everyone on your team adheres to it.”

Lehr and his dairy business team at Farm Credit help their clients develop action plans by evaluating their five-line earnings analysis (the broad perspective) in conjunction with five key areas of profitability (the looking glass). Their benchmarks have been developed by analyzing accrual earning statements, balance sheets and production information from more than 130 dairy farms in the Northeast representing 150,000 cows.

Lehr himself works with more than 50 dairy herds in New York, representing more than 55,000 cows. Four are all-Jersey herds; several are Holstein operations adding Jerseys. Lehr also operates Ky-Hi Jerseys in Canastota, N.Y., with his wife, Lynda, and

children, Kylie and Dylan.

## Five-Line Earnings Analysis

Most business owners are familiar with the five-line earnings analysis. It is the basis for profitability. And though you probably have a pretty good idea where you stand with this, it is worthwhile to plug in the numbers on an annual basis.

Gross milk income	
- Minus variable costs (including credit for non-milk income)	
= Equals gross margin	
- Minus fixed costs	
= Equals net margin	

Gross margin reflects whether a dairy is converting variable inputs, like labor, feed and crops, into milk profitability. Looking at fixed costs separately allows a dairy to determine whether it is using fixed costs, like facilities, efficiently.

## Five Keys to Profit

The “five keys to profit” that the Farm Credit group developed are gross sales, production efficiency, capacity, industry skills and cost control. First determine the value for each key, then evaluate your performance as compared to your peers.

When you compare your numbers to your benchmark peer group, you have a powerful analysis that shows you where to focus to improve profits.

## Gross Sales

- Measured by gross sales per cow
- Are you producing the most component pounds per cow you can?
- Are you maximizing price by capitalizing on components, milk quality premiums and other?
- Have you explored income diversity, like marketing herd genetics or excess crops?

“Take a look at everything that maximizes gross sales per cow,” noted Lehr.

“Fans and cooling are big contributors here. Make sure you have enough fans and are providing adequate cooling to prevent

heat stress.”

“As well, make sure you have adequate forage inventory, so you won’t be forced to feed green feed, which negatively impacts milk yield and components.”

## Production Efficiency

- Measured by gross margin per cow
- Are you utilizing labor efficiently as measured by component pounds sold per worker?
- Are you maximizing forage quality to minimize feed cost?
- Are your crop costs in line on a per-acre or per-ton basis?

“Because feed for heifers is a major drain on finances and feed inventory, a key question to ask is, ‘Are we feeding too many heifers?’”

“Find the ideal number and raise only the heifers you’ll need. If you sell bred heifers as replacements or beef, make sure you can recoup their costs.”

## Capacity

- Measured by overhead or fixed cost per cow
- Are you using your facilities and resources to their potential? Consider land, parlor, machinery, dairy facility and others.
- Are your resources in balance? For example, do you have too much equipment for herd size?

“You might have to think out of the box to become efficient for capacity. Consider practices that might not be obvious initially. For example, are we renting some poor land that we should just let go? Should we hire a custom operator to haul manure?”

## Industry Skills

- Measured by cull rate, pregnancy rates, forage quality, slippage rate, total components shipped per cow and others
- Are you capitalizing on your strengths and improving your weaknesses?

“Benchmarks can help you address industry standards like cull and pregnancy rates. But it can be difficult to assess strengths and weaknesses of your operation. Consider setting up an advisory or peer group meeting to gain an outside perspective. As well, in some parts of the country,

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Lehr

# How Have You Coped with Low Milk Prices?

For dairy producers, financial survival over the past several years has hinged on changes in the way the herd is managed. So, what have dairy producers done to counterbalance the less-than-ideal dairy economy? The Jersey Journal visited with a pair of Jersey breeders and an industry consultant to get their take on measures dairy producers can employ to weather hard times. Their responses are summarized below.

Surely, all have looked for ways to pinch here and there to ensure they are running a tight ship. However, tempting as it is to cut corners, sometimes a move in the opposite direction can improve the bottom line. New technology, equipment and methods to reduce labor and other input costs and increase income may be opportunity run leaner and pave the way for profits as milk price continues its upward turn.



Joel Albright and his wife, Mary Beth, and children, Lauren and Luke, operate a 650-cow dairy with his parents, Fred and Becky, in Willard, Ohio.



Don and Desi Josi, right, operate Wilsonview Jerseys with their son and daughter-in-law, Derrick and Kaycee, in Tillamook, Ore. They milk 485 cows on two facilities.



Sherry Smith has been working with dairy producers as a nutritionist for nearly 20 years. Today she is with Cows Come First Consulting LLC.

## Albright Jerseys LLC

*Albright Jerseys LLC is a 650-cow Registered Jersey dairy owned and operated by Joel Albright and his parents, Fred and Becky, in Willard, Ohio. In the past six years, they have expanded the herd from 340 to 600 cows, all from internal growth. Since 2018, the herd has been milked by nine Lely A4 robots. The herd has a lactation average of 20,443 lbs. milk, 939 lbs. fat and 747 lbs. protein and a herd average JPI of +76. Albright Jerseys was featured as a virtual farm tour during World Dairy Expo in 2019. Joel received the AJCA Young Jersey Breeder Award in 2016.*

### Topic: Heifer Inventory

With the availability of sorted semen, large heifer inventories can become reality for all dairy farms. Raising all these heifers can stress facilities, reduce feed availability, increase labor and cause a huge drain on farm resources. One of the ways we now better cashflow our dairy is to raise only the replacement heifers we need. We have changed the breeding program to produce just the desired number of Jersey heifer calves for the milking herd along with cross-bred calves for the beef market.

Though this strategy works for us today, I'd like preface this by saying it would not have been palatable for my grandfather. As well, we are better able to execute this plan with the help of an A.I. company doing arm-service work rather than tackling this job ourselves.

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## Wilsonview Jerseys

*Wilsonview Jerseys is operated by Don and Desi Josi and their son and daughter-in-law, Derrick and Kaycee. The family milks 485 cows at two facilities: 385 at the original farm in Tillamook, Ore., and the balance at Wilsonview West on a neighboring parcel of land. The farm has been extensively renovated and expanded since Derrick joined the business full-time in 2004. Plans are to increase herd size when milk prices are more favorable. Though operation of the dairy is a team effort, generally, Don oversees the breeding program, Derrick is responsible for feeding and Desi rules decisions for calf and heifer raising.*

*Wilsonview Dairy has a lactation average of 20,714 lbs. milk, 955 lbs. fat and 711 lbs. protein and a herd average JPI of +85. Derrick also pens Tillamook Dairy Farmer, a popular blog on Facebook and Instagram.*

### Topic: Breeding Program

We have cut back on flushing and in-vitro fertilization (IVF) because we didn't like the super huge calves that come with IVF. We were also using a lot of genomic young sires, but have now started using more proven bulls again. Top cows and heifers are bred to A.I.; the lower end of the herd is served to beef bulls. This allows us to earn income from cross-bred calves and raise fewer replacement heifers on the farm. An aspect of the breeding program we feel is untouchable for change is use of top production bulls. Cutting corners here

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## Sherry Smith, Nutritionist

*Sherry Smith, Glenford, Ohio, has been working with dairy producers as a nutritionist for nearly 20 years. Today, she is with Cows Come First Consulting LLC, based in Geneseo, N.Y. The company provides dairy nutrition services for dairy herds in 10 states and four countries.*

*Sherry is the Ohio 4-H Dairy Program Specialist and coach of the Ohio 4-H team that placed second at the World Dairy Expo contest this fall. She has judged Milking Shorthorns at the North American International Livestock Exposition and was associate for the Brown Swiss show at World Dairy Expo. She has also judged numerous state fairs and youth shows. Sherry has bred and exhibited several All-American nominations from the Brown Swiss breed.*

### Topic: Feeding Program

Our approach to feeding has varied during the past several, challenging years depending on the producer's individual circumstances and goals. Some farms have chosen to lower the cost of the ration by taking out additives that are considered extras, such as yeast, amino acids/animal proteins and binders. And this makes sense, provided production, health and components are not negatively impacted. But truthfully, you can say this is a wise move even when milk price is good because it impacts the bottom line.

Whether milk prices are high or low, it is important to maximize homegrown for-

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## Financial Roadmap

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DHI provides reports with benchmarks to help with herd management.”

### Cost Control

- Measured by your net cost of production and breakeven milk price
- Have you created an internal culture of ‘every dollar earned is yours to keep?’
- Are you actively price shopping, managing inventory and limiting shrink?

“Debt structure is a key component to your breakeven milk price. Make sure you have the appropriate debt structure, a payment period that is neither too long nor too short.”

### No Excuse Action Plan

Developing an action plan to improve profit with realistic, deliverable goals takes time, effort and follow through. A “no excuses action plan” is powerful once your entire team is on board.

Advisory groups and peer groups can help you evaluate benchmarks, isolate areas to improve and establish goals. Develop partial budgets to test payback viability and fine tune your plan.

“Sure, it takes effort to develop an action plan for your dairy. But when one is in place and your entire team is on board, your operation will be firing on all cylinders,” summed Lehr.

## Albright Jerseys

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Where do you start? First, determine ideal herd size. Are you already there? Are you growing? If so, what growth rate can you afford to cashflow? What is an achievable cull rate? What is your heifer cull rate? There are lots of good inventory calculation tools available to help determine the number of heifers to raise each month. Once the “how many heifers do we need” question is answered, a breeding and heifer program can be built to create the correct number of replacements you’ll need each month.

Knowing how many heifers are needed each month is great. However, the number of actual pregnancies is what you really need to reach your goal. A simple strategy we use with our breeders is to monitor semen usage. For example, if we are targeting 30 heifer pregnancies a month using sorted semen, we need to use 80 units of sorted semen each month based on a 37.5% conception rate on sorted semen (this covers our lowest conception months of the year).

Our biggest challenge is deciding which cows to breed to sorted Jersey semen and which cows to breed to beef bulls. We identify the top half of our herd to be bred to sexed Jersey bulls based on PA JPI or GJPI. We use JerseyMate to create matings for these females and store matings in PC Dart. Other females are bred to beef bulls.

To help with this effort, a tool that would help me sort all cows and bulls would be very useful. All the A.I. organizations have sorting tools and mating programs, but one from the breed association that would allow herd management decisions to be made independently from semen purchases would be ideal.

If you have a large heifer inventory, there are many strategies for reducing the number that enters the milking string. The route we have chosen is to generate the pregnancies we need and sell of any extra calves as soon as possible. This has been critical to our cashflow and survival. Using round numbers, if it costs us \$2 per day to raise a heifer, carrying an extra 100 heifers results in an additional \$73,000 of cashflow burden to our operation each year.

## Wilsonview Jerseys

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would result in a loss of production—our lifeblood—down the road. We sort bulls with our own parameters using BullsEye. This has been a great tool for us. We enter our criteria in the program and get a list of bulls that meet these specs in real time. We then pull pedigrees on the bulls and check production on the dams and appraisal scores on the material line. We choose bulls we feel fit the needs of our herd. This is a team effort.

### Topic: Feeding Program

We put in a robot for pushing up feed. The robot reduces time we spent pushing feed up by hand and enables us to do other things on the farm. As well, fresh feed is now in front of the cows more often. The cows have responded well by coming up on milk.

We also put up a large commodity shed and two large bunkers. This move enables us to store more top-quality feed. We now grow all our feed, except alfalfa. Corn is planted and harvested by a custom cropping crew. By getting the crop in the ground faster, we feel we have higher quality feed for the cows. We also have more control over the quality of feed when it is harvested. By using a custom crew, we do not need to purchase specialized equipment we would use once a year.

An equally important bonus with custom cropping: it allows us to focus on the cows all the time. We no longer make the cows second fiddle to the crops for weeks at a time while we work the fields. Lowering feed values and quality is never acceptable for us as it impacts production.

### Topic: Calf and Heifer Raising

We have plans in place to build a whole new calf and heifer raising facility in the near future. Until then, we have a system in place that works for us and this entire area is untouchable as we are raising the future ladies of the milking string at Wilsonview.

Our mortality loss is about 1%. Desi is responsible for raising calves with the help of one employee. The two are the only ones to feed calves.

At birth, calves are vaccinated, given three bottles of colostrum and fresh water immediately. They are raised in individual pens. On day three, fresh grain is introduced. At six weeks, alfalfa hay is given.

When they are 3-4 months-of-age, they are moved into groups of 12. After they learn how to compete with their peers for feed, they are moved into larger group housing. Any calf that doesn’t do well in this environment is held back in the smaller group until she adjusts.

In recent years, we have also reduced our use of drug therapy. Most heifers are treated through hydration and electrolytes. The move has saved money and reduced calf mortality.

We also believe in using nothing but the best genetics. By doing this and raising every single heifer born on the farm, we are developing healthy, growthy animals and setting ourselves up for success in the future.

## **Sherry Smith**

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ages by making the best quality forage you can and feeding as much of it as possible. This accomplishes several things. It lowers the cost of the ration, typically increases components and production and positively impacts herd health.

Also, pay attention to bottlenecks on the farm that can influence how cows respond to being pushed for production.

Ultimately, I believe decisions on what can be cut from the ration to reduce costs needs to be made on an individual basis. Income over feed cost is the key decision maker.

### **Topic: Crops**

Maximizing quantity and quality of homegrown forages is key. Getting the most from the real estate you have is paramount to profitability.

More of my producers are now double-cropping and using new hybrids with higher neutral detergent fiber (NDF) digestibility.

With the wet weather negatively impacting alfalfa production in our area this year, many dairy producers planted sorghum/sudan and sorghum forages to help offset the loss of alfalfa as forage.

As well, more producers have planted small grains for silage as a double crop with corn and soybeans to increase forage inventory.

### **Topic: Calf and Heifer Raising**

It is more important than ever to cut the costs of raising heifers and to improve growth and efficiency while doing it. Look closely at each step of the process to improve health and minimize waste. Bettering these will better the bottom line.

Since bred heifer prices have been significantly lower over the past several years, many producers who traditionally sold excess springers for cash flow have changed their strategy. I have seen many producers breed the bottom of the herd to beef bulls

to produce a more marketable calf for the beef industry. Others have used genetic testing to determine which heifers are the most profitable to keep as replacements, and then marketed the less-valuable animals for beef.

On the feed side, giving feed refusals from the lactating herd to heifers is a better option than hauling this feed to the field. However, this practice should be limited to as needed for several reasons. The lactating cow ration is the most expensive ration on the farm because it contains the highest quality forages. So, it is best practice to use this inventory to feed the lactating herd alone. As well, if refusal amounts are high, it could point to a problem with ration dry matter or ration sorting, which could negatively affect milk production and cow health.