

Keeping Your Head Above ~~Water~~ Milk

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The dairy industry, not only in Kentucky but also across the US, continues to undergo many challenges and industry changes. Changing and lost milk markets, reductions in domestic demand, oversupply of milk from the farm level, and uncertainties with foreign trade potentially affecting exports have all contributed to lower milk prices and caps placed on total production marketed per farm. These lower milk checks have definitely presented challenges in covering farm and family expenses. Obviously, each farm has to develop its own plan, but some common threads exist on these more profitable dairies. Dairy farmers that optimize the use of financial, labor, facilities, and cow resources are better able to weather the storm. Let us explore some of these management and business practices implemented on some of Kentucky's more profitable dairies.

Management of finances + cows = Dairy Business

The statement is often made, "You cannot manage what you cannot measure". Most farmers can quote the price they received for their milk last month. However, can you also quote your current cost to produce milk per cwt or per cow? When it comes to running a business, like a dairy farm, understanding what it costs to produce your product, in this case milk, is paramount in being as profitable as the financial climate allows. With this information, you can compare costs within various categories, i.e. feed costs, to previous years and other producers to see if your costs are reasonable and if financial opportunities exist to improve the bottom line.

During either lean or profitable times, potential profit should not be "left on the table". Businesses realize that sometimes you need to spend a \$1 to make \$1.50 or \$2 on your investment. This type of return is greater than you can get on any bank CD. For example, using fans or a cooling system set to come on at 65°F can improve cow comfort, reproductive efficiency and milk production leading to potentially more profit. Yes, electricity costs increase, but they are quickly offset by increases or the ability to maintain milk production and reproductive performance. However, I do realize that there is a limit to the number of investments that can be made. I still remember a dairy farmer for whom I had the upmost respect for make the statement: "\$20 might not be much by itself, but multiple \$20 expenses add up quickly and can affect finances". This statement is very true and affects finances in business and personal endeavors.

Cull the Dead Wood

Resources should be invested in the most profitable cows. Generally, early lactation and higher producing cows are the most profitable. Critical evaluation of each cow in your herd helps determine which cows are "paying their way". Cows that make the "to be culled list" need to be culled sooner rather than later to free up financial and management resources. Cows can be placed on the cull list for a variety of reasons, including high SCC, reproductive issues or low milk production. To identify these cows in a timely manner, individual cow records are needed and must be used on a routine basis. For example, identifying chronically high SCC cows, culling these cows, and replacing them allows "barn space" to be occupied by a low SCC cow that should reduce your tank SCC and help protect your milk market. To identify high SCC cows, DHI records where milk is tested for SCC or the recording of results over time from a CMT test can be used to identify chronically high SCC cows that need to be culled.

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Keep the barn full with not too many spares

Expenses associated with raising replacement heifers account for 15 to 20% of the total cost to produce milk. This cost is much greater than most people realize until one calculates resources these heifers use, i.e. forage needs, and costs associated with these resources. A 2015 survey of WI heifer operations reported an average of \$2510 to raise a heifer from birth to calving when accounting for labor, depreciation and other variable costs. In 2019, a similar survey of expenses was done in the Northeast, and the cost to raise a heifer to calving was almost identical at \$2505. In this Northeast survey, the cost to raise a heifer ranged from \$2244 to \$2607.

One fact that greatly influences the total dollars used by replacements is age at calving as well as the total number of head being raised. For each month over 22 to 24 months of age at calving, feed costs represent about \$2 per day with total cost in the 2015 WI survey of \$3.36/day. When heifers calve in at an older age, they are very costly to maintain in the heifer herd and drain a farm's financial resources. Adequate numbers of heifers are needed to replace culled cows, but raising more heifers than needed increases total rearing costs tremendously. For example, with a 33% cow cull rate and heifers calving at 22 to 24 months of age, only 70 heifers of all ages per 100 cows are needed as replacements for the milking herd (at 36% cull rate, 75 total heifers of all ages per 100 cows). Excess heifers could be sold as springers if a good market exists or sold at a young age so that resources were not invested in them. Another consideration is the potential to use these forage/land resources by another enterprise on the farm to help diversify and provide another source of farm income.

Sweat the Details

Managing a dairy business requires juggling many components at once. To start with, forages need to either be harvested by the cows themselves or mechanically harvested and stored at the optimum maturity. Higher quality forages maximize feed intake, intake of nutrients, and milk production per cow especially in early lactation. The statement is often made: "Your nutritionist is only as good as your forages". Over half of your cows' diet comes from the forages you produce or purchase, thus their quality directly impacts your bottom line. Another concept to remember is that cows require nutrients, such as energy, protein, minerals and vitamins, not specific ingredients. As the prices of grain commodities change, working closely with your nutritionist to substitute cheaper sources of nutrients can save dollars on your feed bill and get cows to produce milk efficiently and economically.

Generally, a dairy cow is the most profitable during early lactation and less profitable later in lactation. To keep the number of days in milk reasonable, cows need to be rebred in a timely manner and obviously, become pregnant. Early identification of cows NOT pregnant is critical either through testing the milk or palpation by a veterinarian. Skipping or extending the period from breeding till pregnancy diagnosis can result in more cows being open for a longer time period, costing you dollars in lost milk income in the future.

Pamper Your Cows

Cows are creatures of habit and like consistency in their daily milking and feeding routines. Consistent feeding practices are important to maintain milk production, but also components. Consistency on feeding practices includes:

- (1) Feed pushed up multiple times daily to ensure cows can reach feed,
- (2) Feed in front of cows at least 20 hours daily,

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- (3) Consistent composition of TMR (ingredients added in correct amount and not over or under mixed),
- (4) During warmer months, feed more often and make sure feed is shaded within feedbunk, and
- (5) Provide adequate, cool, and clean source of water (cows spend less than 20 min daily drinking).

Cows respond positively when provided a comfortable place to lay down and when housed in an environment that minimizes heat stress. Cows like cooler temperatures and are most comfortable at a lower environmental temperature than humans, generally between 40 and 70°F. Cows should spend approximately 4 to 6 hours daily eating, 12 to 14 hours lying down, and less than 2 to 3 hours daily standing waiting to be milked. Observing these time budgets can help improve performance.

The most important period for cows on a dairy are those 3 weeks before and 3 weeks after calving. Special attention to the dietary and management needs of cows close to calving in order to reduce stresses and provide nutrients needed while making sure not to overfeed energy or underfeed fiber for rumen fill. Smooth transitions back into the milking herd allow cows to peak and milk to their potential and rebreed in a timely manner.

Make lemonade out of lemons

All businesses experience good and not so good financial times. To weather these storms, we need to work on aspects under our control, take pride in the industry we are part of, and remember the important parts in your life--family, friends and beliefs. Look for the positive side of things. I realize this is not always the easiest perspective during stressful times. Sometimes we need to step back, enjoy life and laugh at the little things that can keep us sane.