

How Do You Budget Time?

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At the centre of every dairy farm is a time budget. How you allocate your time is something that changes hourly. A calving, a case of mastitis, or a water leak adds time to every day. In fact I can't think of a surprise that could save you time in the barn. There have been many attempts to benchmark the time required to manage cows and although we often assume that we are more efficient or better than average, by definition, most of us are actually average.

In generating these numbers we first have to define what one full time person actually is. Most studies define a 50 hour work week as one person. These 50 hours are focused in the dairy barn, occasionally they include raising replacements. They are not spent cropping or other associated enterprises on our farms. The most recent observational studies have looked at dairy farms in Wisconsin that had transitioned from under 100 cows in old dairy barns to larger herds in new facilities. On average one full time person was managing 30 cows. There are similar numbers generated in Ontario. After modernization one full time person was managing 60-70 cows. This is simply a record of what was happening and does not report on performance monitors like milk production and milk quality.

Summer brings some very predictable changes to every dairy including increased somatic cell counts, milk fat depression and a requirement for more time spent outside of the barn. The question I have for you today is how do you spread yourself out to accommodate these demands?

In very simple terms you can either create more time (i.e. hire help) or stop doing something the way you normally do. When investigating either milk fat depression or elevated somatic cell count the first question is what has changed? The obvious answers come to mind: the weather, new forages, or perhaps the appearance of some spoilage on forage or grains. The thing that we rarely address is how our time budget has changed with the changes in season. Did we shorten the mixing times, move cows outside and condense our usual four feedings or grain into three meals, or even a change in who is tasked with mixing feed or milking the cows.

The majority of time spent with milk cows is tied up with milking, cleaning the cow's environment and delivering and pushing up feed. Cows like routine, they want to eat at the same time, be milked at the same time and have the same milking routine. Adjusting feeding time, milking time or milking protocol will not result in both less time spent in the barn and improved milk quality.

Elevated cell counts and clinical mastitis results from the interaction of the 'bug', the environment, and the cow. Prevention therefore, must address these three areas. Limit exposure of the cow to the 'bug' by manipulating the environment (maintaining a clean dry area for cows to live), limit opportunity for the 'bug' to survive on the skin (teat-dips, teat condition) and maximize the ability of the cow to fight off infection.

Regardless of how you adjust your schedule for summer we need to start to monitor the cow's environment. Slow change, otherwise known as protocol drift, is hard to recognize from one day to the next. Skipping cleaning the stalls properly one day may not result in a significant change in number of bacteria in the back of the stall but failing to properly clean the stalls for a week will.

To guard against this we need to start to think of ways to evaluate our performance and record your results. To evaluate stalls, kneel down where the udder would come to rest when a cow lays down. After 10 seconds you should have dry knees when you stand up. If they are wet then we need to address this issue. As humidity increases it is more difficult to keep stalls clean and dry and will require more effort. Similarly, if you are using an exercise yard or pasture watch where the cows choose to lie down. Exclude access to wet and or muddy areas.

Second, look at your cows. There are very good standardized scoring systems for cow cleanliness that look at the amount of manure staining on the legs between the dewclaws and the hock. More than 25% of this area covered is considered too much and there should not be any manure on the udder. Ideally less than 25% of cows will have moderate manure accumulation above the dewclaws. This can be accomplished with little interruption at a scheduled herd visit. Record your results and act if you get above your cleanliness threshold. Action can first be to clean up the environment, introduce an additional cleaning step prior to milking if manure staining is present around the udder or finally taking time to wash the cows. Reducing the bacterial load on the legs will reduce the risk of elevated cell counts and mastitis.

Milking time and milking protocol should be the same every day. If you have more than one milking crew it will pay you dividends to ensure that everyone is using the same milking routine. The goal is to ensure that you attach the milking claw to a clean, dry well stimulated teat. Standardizing your expectations for teat dip coverage, pre-dip contact time, how you are going to stimulate milk let-down and ultimately that you watch the cow to see she is ready to milk when the milking claw is attached. In this instance it is a little counterintuitive. Trying to speed up the milking process by skipping a step will on average increase milking time and frustration.

Controlling the spread of contagious mastitis requires a management plan that triggers action every time a new high count cow is identified. Physically milking high cell count cows last will accomplish this goal. In a tiestall moving cows to the end of the milking routine or implementing an identification system in a free-stall barn that will remind the milker to clean the milk claw before attaching it to the next cow.

In every day there are only 24 hours. Set goals for stall and cow cleanliness, outline your milking protocol and most importantly evaluate your performance over time. Taking time to evaluate your performance throughout the year will help guard against changes to milk quality.