Know the numbers that really count

Of all the numbers our records can provide, relatively few tell us that problems are developing ... accurately and soon enough.

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N A previous article (September 10 issue, page 603), we discussed the importance of asking the right questions when tracking the progress of a herd. The emphasis was on asking questions that do not mean something to the business, but seek measures or monitors that address those questions.

Here’s a more detailed look at some of the key questions:

Are fresh cows doing well? Monitors of limited value include average milk peaks in the herd or any other “average” that applies to cows that calved over different time periods. Better monitors include fresh cow disorders as a percent of calving, milk:feed efficiency, numbers of “good” cows and “bad” cows, and 21-day pregnancy. We need to focus on how heifers compare with the “ceiling level” of milk production, or the top level that cows are achieving under current feeding and management conditions.

How fresh are cows and overal herd health? This is a somewhat vague question that can encompass many areas and will vary, depending on each dairy’s ability to detect, define, and record incidence of disease consistently. Number of cows in the hospital pen, death loss, cows shipped, and disease incidence rate will provide some insight. Visual observation of the herd, including general appearance and condition of the cows, locomotion status, milk, weight, and cut chewing may provide additional insights.

Percent born dead (DAs) for cows and heifers calving, over a given time period, is a useful monitor of calving problems and the work being done in the maternity area. Other more subjective measures may be useful for some dairies, such as scoring calving difficulty and assistance provided.

You should track metabolic disorders as a percent of calvings over a given time period. For large dairies, this time period may be a week or month. For small dairies, this may be quarterly, semi-annually, or annually. It is useful to compare first-calf heifer disorders separately from older cows. Dairy metabolic disorders are a problem in the same way, so they are difficult to compare or benchmark. For example, what is the definition of an RP? Is it a retained fetal membrane soon after calving, 24 hours after calving, 48 hours after calving, or only when a cow goes to the hospital pen?

Incidence of DAs is more straightforward. Milk fever incidence is affected by the aggressiveness of the people working with fresh cows. Ketosis is very subjective and most difficult to benchmark. Having said this, some reasonable goals are less than 3 to 4 percent DAs, less than 10 percent RPs, and less than 1 to 1.5 percent milk fever. Obviously, breed, season and environment will impact these numbers.

Are the “good” cows performing? Which are the “good” cows? Recent milk peaks or production for cows in the earlier stages of lactation are worth monitoring to evaluate to see how the “good” cows are milking. The percent of cows over health data always should be evaluated based on lactation number, specifically looking at differences between first-calverifers and cows.

What about feed intake levels and variation by pen? Most nutritionists prefer to follow dry matter intakes for the herd and by group. Many want to know if cows are converting feed to milk efficiently. The milk:feed ratio (pounds of milk per pound of dry matter intake) typically is monitored over this question. This value is most useful when determined for the entire milking herd. This number does have some value as long as you understand the context of how it’s interpreted. The milk:feed ratio will vary considering feeding on numerous factors, including herd status (portion of first-calf heifers in the herd, average days in milk for the herd), accuracy of measuring true intakes versus feed delivered, and accuracy of measuring 24 hours of shipped milk. It may be helpful to monitor the variation in intake within a pen as well. This possibly will give you a handle on the impact of pen movements, weather, forage quality, and numerous other factors.

In the pattern of milkfat and milk protein levels? Milkfat might be considered the industry “standard” for monitoring nutrition and feeding. Although valuable, it’s our belief that this often is misinterpreted and misused in the industry in terms of evaluating the true rumen health and energy status of cows. Interpret milkfat levels carefully. These are easy numbers to come by on all dairies, but use with careful interpretation. Milk protein and milk urea nitrogen also are useful as monitors.

Are my feed costs acceptable? Feed cost per cow per day often is used as the primary monitor of feed costs. However, this number is limited as a monitor or obvious . . . higher-producing cows eat more feed. Feed cost per hundredweight of milk is a better measure of feeding economy, and this value has some use as a report card. It has but limited use as a monitor.

How is feed cost over feed cost per hundredweight (IOFC) is a better monitor for short-term decisions. As an example, consider two herds with varying production and feed costs, but similar milk price ($15 per hundredweight). Herd A has low feed costs ($2.95 per hundredweight) and high milk production (85 pounds per day), while Herd B has higher feed costs ($3.40 per day) and milk production (75 pounds per day). Feed cost per hundredweight is $4.54 for Herd A and $4.53 for Herd B. However, income over feed cost (IOFC) is $8.50 for Herd A and $7.85 for Herd B. This example illustrates several points. First, feed cost per hundredweight is not necessarily a good monitor. Second, benchmarking between herds can be very misleading. Feed cost per hundredweight is not adjusted for fat and protein content of milk, so herds with higher components often will have a higher feed cost per hundredweight, all else being equal. Some dairies also will include dry cow feed cost in the feed-cost-per-hundredweight calculation, while other dairies will not. This can be a significant source of error when benchmarking feed costs between dairies. Generally, using both IOFC and feed cost per hundredweight will give a more accurate assessment of feed costs than either one alone. For sure, both of these monitors are better than feed cost per cow per day.