

WVS MILK QUALITY

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Acidogenic Boluses Enhance Dry Off

Transition Period Management is Important

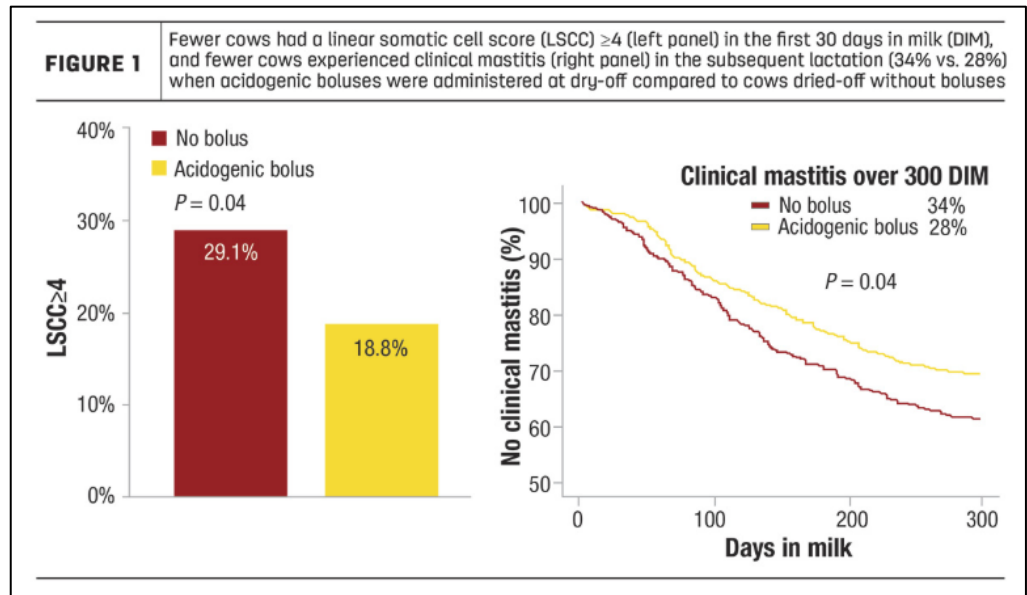
The following is taken from an article by Luciano Caixeta in the Progressive Dairyman.

Managing the transition period in high producing cows is important in maintaining udder health. The use of oral acidogenic boluses, offers a new way to tackle challenges such as elevated milk production, intramammary infections and clinical mastitis.

Across 901 cows from three dairy farms in Minnesota, those receiving boluses showed no differences in intramammary infection dynamics – the presence or absence of intramammary infections at dry-off or at calving – or milk yield compared to cows that did not receive acidogenic boluses.

However, cows receiving acidogenic boluses exhibited improved udder health. Treated cows had a lower linear somatic cell count (LSCC) in the first two months postpartum, a 9.1% lower prevalence of high LSCC (LSCC greater than or equal to 4) in the first 30 days in milk, and reduced risks of clinical mastitis and herd removal in the subsequent lactation (**Figure 1**).

These findings support the use of acidogenic boluses as an effective dry-off management tool to enhance udder health and reduce health-related risks without compromising production.



Acidogenic boluses have been shown to reduce milk production post administration. Results revealed that cows receiving boluses were 17 minutes less active daily during the first two weeks post-dry-off compared to cows that did not receive the boluses. The most significant reduction occurred on the second day after dry-off (33 minutes per day). These results suggest an improved lying time, a key indicator of cow comfort.

Data from 867 cows enrolled in the randomized clinical trial was used for analysis, and the data showed that, in the study population, the use of acidogenic boluses at dry-off yielded a positive net profit change of over \$34,000, with variation across herds influenced by factors such as mastitis incidence and cow breed.

The economic benefit varied across herds, with the herd with the poorest udder health metrics showing the greatest return on investment.

All Sand Is Not Created Equally

Sand is the “Gold Standard” when it comes to bedding sources. Dairymen need to be aware that sand quality varies from the pit source of the sand. Researchers suggest cows should be bedded with sand that contains less than 3 percent organic matter and more than 95 percent dry matter.

Dairymen should look for a sand source that is known as 30 x 50 (silica sand), meaning it’s made up of particles 30 to 50 microns in size. This sand fits in with most manure-handling systems and budgets and contains a desirable mix of individual grains of sand. Different sand separators may need different particle sand to operate efficiently.

Washed concrete sand is generally the preferred type of sand bedding for most farms. It is widely available and contains a good mix of particle sizes ideal for cow comfort, cleanliness and sand separation. Too much clay in the sand will cause the sand to compact and will hamper drainage. The packed sand is also not as comfortable and not as good for cow comfort. We often will do a kneel down test in a stall to see how the sand feels. Some stalls will feel comfortable when you kneel in them, and some will feel like you are kneeling on concrete.

A quick test that you can do to compare sand is to fill a clear bottle about half full of sand and then fill



the rest of the bottle with water. Shake the bottle vigorously for several minutes and then allow it to settle for a day. The sand will settle to the bottom and the clay will be on top. I recently did this test on a farm and compared the sand from three nearby farms.

In the picture above the middle sample has more clay in it and would be less desirable for a sand source. This is only a quick test and sending the sand to the bedding lab will give a more complete picture of the quality of your sand.

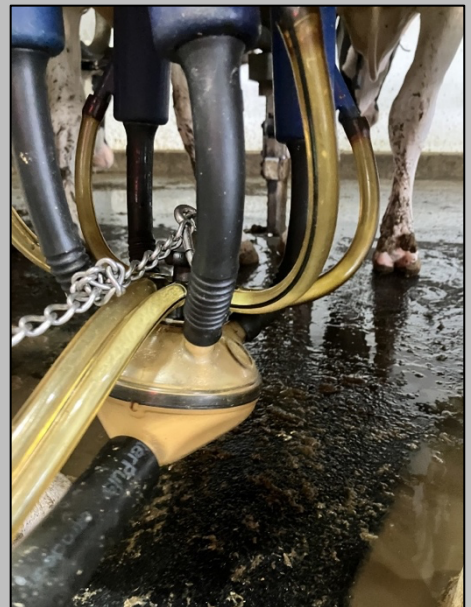
Keep Your Eyes Open in the Parlor

Every day a manager or owner should walk through the milking parlor to look for problems. You do not need fancy testing equipment to find problems with the equipment. Many times, you can hear pulsators that are not functioning properly or hear vacuum leaks. You can also see problems.

If you ever see milk in the pulsation lines, you know you have a cracked inflation and should take apart the teat cup and look for the crack in the inflation.



Crack in liner



Milk in the pulsation tube.