

# Checking Forage Dry Matter: A Boring Magic Bullet

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In working with clients to continually improve performance and success on their dairies, conversation often turns toward looking for one ingredient or tweak, that “silver bullet”, that could be added to the ration to make more milk, components, reproductive performance, etc. The idea of a fast and simple solution is certainly appealing. However, improvement and success are typically found by doing many small things correctly every day, week or month. Consistency is key, especially for cows, and focusing on the little things that matter can make a huge difference. Measuring and monitoring forage dry matter could be the single most important thing to do on a dairy on a regular basis but it is something we don’t see being done very often.

## *Why is it Important?*

To answer this question, it is important to understand that when it comes to thinking about what cows are eating, many times nutritionists and dairy farmers think about things differently. In many conversations with clients, the answer to the question “How have intakes been?” is a measured weight in as fed pounds. This is alright, and it works, but it is not really telling the story of what the cows are eating. Nutritionists balance rations in pounds of dry matter intake, and that is what cows actually consume. As the moisture percentage in a forage changes, the cows continue consuming the same amount of dry matter.

Checking forage dry matter regularly makes sure the cows are actually eating what is being balanced for them. For example, in a ration containing 15 lbs. of dry matter from haylage, if that haylage is 40% dry matter, the ration would be balanced for 37.5 lbs. of haylage as fed. If the haylage changed to 45% dry matter, without anyone measuring, and the same 37.5 lbs. per cow of as fed haylage were added to the mixer, that will actually deliver 16.875 lbs. of dry matter from the haylage. Who cares, right? Well, this is significant and can be the difference between meeting weigh back targets or having far too much feed left over. Along with simply delivering too much feed in this scenario, the composition of the ration is also changed. Adding an extra 1.875 lbs of dry matter from one single ingredient can throw things off. In the case of haylage, depending on the quality, this could increase the concentration of undigestible fiber and limit intake. Protein levels could be increased, potentially making the cows loose. If the feed were to get wetter, the opposite happens, and too little dry matter is fed. This causes different,

but equally detrimental issues. The largest issue is that it can leave cows out of feed for too long. Cows can't eat what is not there and an empty bunk costs milk production. Many efficient cows are making 1.8 lbs. of energy corrected milk for every pound of dry matter they eat. If a dry matter change leaves the cows even just 1 pound of feed short, that could cost you 1.8 lbs. of energy corrected milk. In 2024, Class III milk averaged \$18.37 per cwt or \$0.1837 per pound. That means there would be \$0.33 per cow left on the table in lost production.

Crystal Creek® works to balance rations that contain as much forage as possible while maintaining cow performance. Higher forage rations are usually more profitable, benefit cow health, and make cows more efficient. As forage level increases in the ration, accurate dry matter concentrations and forage dry matter delivery to the cows becomes that much more important.

## *Monitoring Forage Dry Matter on Farm:*

Drying down forages on a farm can be quite simple and easy. A couple key pieces of equipment needed are:

1. A way to dry down the forage. Many clients use Koster Testers or affordable Air Fryers
2. A scale that measures and reads in grams
3. Pen and paper or phone for keeping notes on before and after weights
4. Calculator

Following a few steps will get you accurate dry matter levels for your forages:

1. Place a paper plate on your gram scale
2. Tare the scale
3. Weigh out 100 grams of wet feed onto the plate
4. Place 100 grams of feed into Koster tester or air fryer
5. Turn on Koster and let dry for 30 minutes. If using an air fryer, set to bake at 250 degrees and let run for 30-45 minutes
6. Re – weigh the dried down sample
7. Starting with 100 grams of feed makes the calculation simple
  - a.  $(\text{Dried grams} / 100) \times 100 = \text{dry matter percentage}$
  - b. Example:  $(42 \text{ dry grams} / 100 \text{ wet grams}) = 42\% \text{ dry matter}$

After finding the correct dry matter of your feed. Talk with your nutritionist to adjust the forage feeding rate to keep the ration accurate.

While we often look to additives and other ration ingredients to make positive improvements, sometimes going back to the basics and making sure the cows are actually receiving the ration that is balanced for them is the best place to start. Please

feel free to contact Crystal Creek® to talk with a nutritionist about ration balancing and protocols for maintaining consistency and improving profitability.