



Ag Health News

LABORATORIES

July 2013 Newsletter

Don't forget about getting your feed samples tested this summer!



- Now offering NIR nutrient analysis on feeds at Ag Health Labs!!
- NIR Mineral Predictions are rough estimates of the mineral content in a feedstuff. They are best used as a guideline on whether a mineral is low, med, or high in a feedstuff. We would not recommend using the numbers for ration balancing or DCAD Calculations.
- Ag Health Labs is able to run wet chemistry minerals on samples submitted for NIR analysis.

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Sugar – Fact vs Myth

Westway Feed hosted a meeting in June at Snipes Mountain Brewery in Sunnyside, WA. The majority of the meeting focused on feeding sugars to dairy cattle. Dr. Charlie Sniffen was an invited speaker that addressed the topic of “Sugars – Fact vs Myth” when feeding dairy cattle. Dr. Tony Tucker (Westway Feeds) also spoke on the topic of “Making Sure You Meet the Sugar Requirements in Dairy Diets”. Dr. Sniffen (along with many other nutritionists) has spent many years developing and refining a dairy cattle nutrition model referred to as CNCPS. This nutrition model attempts to mimic how nutrients are utilized in the rumen, as well as the small intestine, of the cow. This dynamic nutrition model attempts to meet the nutrient requirements of dairy cattle by utilizing the nutrients that are available in the feeds selected to be fed to the cattle. Sugar is one of the nutrients that dairy cattle utilize to meet some of their nutritional requirements.

Some of the highlights from both Dr. Sniffen's and Dr. Tucker's talks included:

- 1) Some of the feeds that are fed to dairy cattle that have substantial sugar content include (but are not limited to):
Molasses Almond Hulls
Whey Citrus Pulp
- 2) **Understand your sugar sources.** There are different types of sugars:
6-carbon sugars (sucrose, fructose, glucose)
5-carbon sugars (xylose)
- 3) 6-carbon sugars are more 'available' whereas 5-carbon sugars are not as available.
- 4) Not all sugar sources are created equal. Do not look at the total sugar content in a feed stuff and assume it is all available to the cow. Some feeds may have relatively high sugar content, but the availability of the sugar may be low (such as citrus pulp).
- 5) When forages **'heat up'** sugar is being utilized as an energy source, therefore, **reducing** the **'available sugar'** in the forage.
- 6) When evaluating the **'Total Sugar'** content in a diet, do not assume that it is all **'available'**, and pull out starch accordingly. In instances where they have attempted to do this the cows have been **'shorted'** on carbohydrates (sugar plus starch).
- 7) Some of the benefits of feeding liquid sugar sources include:
↑ Palatability
Reduce sorting of feeds within the TMR
- 8) **Feeding molasses** (high in sugar content) between 6 to 7% of the DM in the ration optimizes fiber digestion in the rumen.
- 9) If the diet being fed is high in alfalfa haylage and there is a lot of nitrogen available, it is important to make sure there is enough sugar available in the diet.

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Take Home Message: Sugars are important to evaluate when balancing dairy cattle rations. Researchers and nutritionists used to believe that all sugar was available as soon as it was in the rumen. They now know that this is not true, and are continuing to learn more about how to best utilize different sugar sources in the diet. This information is being incorporated into dynamic nutrition models, however more research is still needed in this area.

For further information or discussion on this subject please call Ag Health Labs at 509-836-2020. We would be willing to forward your questions on to either Dr. Sniffen or Dr. Tucker!

Lynn VanWieringen



Introducing Dr. Gibbs

We're excited to introduce the newest member of our cattle health network. Dr. Tim Gibbs is a 2013 graduate of WSU's College of Veterinary Medicine and a native of Eastern Montana, where he was raised on a cattle ranch. Dr. Tim will be working under the newly established Cattle Strategies, PLLC, a cattle health and management company led by Dr. Fred Muller.