Time To Analyze Stored Forages

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Again this year the weather has pushed back bailing hay. Pushing back the hay harvesting date can dramatically affect quality. Stage of maturity is by far the most important factor influencing quality. The younger the plant, the higher the quality, that is as plants mature, they continually change in forage quality (accumulating indigestible lignin). Remember, forage plants can mature rapidly leading to significant declines in forage quality every two or three days.

Greater net profit is the bottom line for why livestock producers need to know the quality of the forages they are/will be feeding. Knowing the quality of forages when selling or buying them has also proven to be economically smart. In addition, understanding the quality of forages will improve animal nutrition and thus animal production.

Not knowing the quality of the forages harvested can be a double-edged sword. On one side is underestimating the crude protein content of the forage. This results in feeding more supplemental protein than is necessary, increasing daily feed costs. On the other side is overestimating forage quality. Guessing that forage crude protein is greater than what it actually is results in adding too little supplemental protein to the ration and saving in feed costs. However, too little crude protein may negatively impact milk production, especially colostrum at calving. Cow colostrum contains about 22 percent solids (versus 12 percent in normal whole milk) and is also a rich source of milk protein, fat (energy source), sugars, and vitamins (especially Vitamins A and E) that is vital for calves to develop passive immunity to many newborn calf diseases.

A chemical analysis is valid only to the extent that the sample truly represents the stack or lot of hay under consideration. As with any testing method, the key is to obtain a representative sample of your hay. Without representative sampling, the results from a laboratory analysis are useless. The following are guidelines for collecting a representative sample of hay. First, use a good, sharp probe; dull probes will not obtain a representative sample. Second, sample several bales at random (do not choose bales based on appearance). Third, take a sufficient number of samples; too few samples will not be representative of your hay. A minimum of 20 core samples are recommended for a lot of 10 tons or more. Fourth, proper technique will help ensure that a representative sample has been taken; a crosssection sample of the bale will obtain the best representation of stems and leaves. Rectangular bales (all sizes) should be probed 12 to 18 inches deep and at right angles into the center of the ends of the bales while round bales should be probed at right angles to the outer circumference to the bale. Lastly, handle the samples correctly. Pool all core samples and store in a plastic freezer bag, protect the samples from excess heat and direct sunlight, and send immediately for analysis. Hay/forage testing labs can be found by calling your County Extension Office. Alternatively, you can look up the following URL: HYPERLINK "http://www.foragetesting.org/files/2009/2009_Certified_Labs.pdf" http://www.foragetesting.org/files/2009/2009_Certified_Labs.pdf. This website contains a list those labs that are certified to conduct forage testing.

The forage analysis will help in balancing rations for cattle that are in different stages of production resulting in minimizing feed costs and wastes. In addition, knowing the quality of forages fed can result in other benefits that affect profitability. Animal health, including resistance to parasites and diseases, is favored by a high plane of nutrition. Reproductive efficiency of animals is often higher when nutritive intake is high. High quality forage also often reduces or eliminates the need for supplemental feeds, which usually are more expensive than non-forage sources of nutrition. Δ

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