

July 5, 2013

TIMING IMPACTS FORAGE QUALITY

Compared to what we started the year with, the cool spring and rainfall events really improved our drought damaged pastures and gave a boost to hay meadows. I had a comment this week about a few people cutting native early this year. For sustainable production, native should not be cut twice in one year for two consecutive years. Alternating between 1-cut and 2-cuts every other year is okay according to UNL forage specialist Bruce Anderson.

The 2-cut program year typically gives higher forage quality from first cut because plants are less mature. The second cut will be leafy and palatable but actual concentration of protein and TDN usually is not as high as it visually appears like it should be. But it is eaten readily in most cases.

Timing might be something like late June for first cut and October for second. Best to have second cut in or near the dormant season (after first freeze) to minimize stress to the plants. Hay from the 1-cut year usually isn't harvested until about early August for high yield but protein and TDN are fairly low so supplements typically are needed. We are lucky to have high tonnage on brome and native meadows following last year's severe drought spell.

With alfalfa, with the late first cutting, what that essentially did is lose us one full cutting this year and the second cutting appears to be short compared to normal in many cases. Despite these challenges the spring rains took us farther than what many had predicted. One thing about cutting alfalfa, keeping a schedule is important for quality hay.

It has been said that there are three items that determine forage quality: 1) maturity at harvest, 2) maturity at harvest, and 3) maturity at harvest. It is safe to say that stage of maturity of a forage is the primary factor that influences forage quality. As plants mature or advance in maturity, forage quality declines. As the plant matures, a larger portion of the plant is stem as compared to leaves. Also, as the plant matures, the fiber components of the plant increases causing a decline in quality and digestibility. In addition to the fiber components that increase as the plant matures, so does the lignin content. Lignin is a cell wall component of the plant that is not digested by ruminants.

On the flip side of forage quality is forage yield. As the plant matures, more plant material is produced and more quantity of plant is available. As plants mature, forage yield goes up. So this is a balancing act for producers, to optimize forage quality and yield. If the producer maximizes quality, then forage yield is minimized. If forage yield is maximized, then forage quality suffers. Your decision on forage harvest timing, especially with brome and native grasses, can impact supplementation need, and therefore, supplementation costs.

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