Understanding Wet Hay

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The timing of the rains can make it difficult for cattlemen who are trying hard to put quality hay in the bale for next winter's feed supply. All producers that harvest hay occasionally will put up hay that "gets wet" from time to time. Therefore, ranchers and hay farmers need to understand the impact of "wet hay" in the tightly wound bales.

Extra moisture in hay can cause heat inside the bale. Heat produced by the bale comes from two sources:

First) **Biochemical reactions from plants themselves as hay cures.** (This heating is minor and rarely causes the hay temperature to exceed 43 degrees C. Very little if any damage occurs if the hay never exceeds 43 C.);

Second) **Most heat in hay is caused by the metabolic activity of microorganisms.** They exist in all hay and thrive when extra moisture is abundant. When the activity of these microbes increases, hay temperature rises. Hay with a little extra moisture may not exceed 50 degrees C., whereas, wetter hay can quickly exceed 65 degrees. If the hay rises above 77 degrees, chemical reactions may occur that produce enough heat to quickly raise the temperature above 200 degrees, causing the wet hay to burn.

Heat damage causes hay to be less digestible, especially the protein. Heat damaged hay often turns a brownish color and has a caramel odor. Cattle readily eat this hay, but because of the heat damage, its nutritional value might be quite low. Some ranchers have reported that "the cows ate the hay like there was no tomorrow, but they did very poorly on the hay".

Testing the protein and energy content of stored wet hay will allow for more appropriate supplementation next winter when that hay is fed. Moldy hay could be a source of mycotoxins that could present several health problems for cattle. Many animal disease diagnostic laboratories can examine feedstuffs for mycotoxins or can recommend laboratories that do such testing.

Source Glenn Selk-Oklahoma State University