Wilson County Agricultural Article from Ruth Correll, Agricultural Extension Agent

Warning - Baled High Moisture Hay – Potential For Problems

Hay harvest has started and there is still lots to go. There are several factors that influence hay quality and one of these is the curing process. Hay that is baled with high moisture levels has the potential to cause fires, have less nutrition and have the potential for toxins.

All hay must be dry before baling. Wet, green hay in a bale provides the ideal location for spontaneous combustion to occur. Plants will continue to respire until the moisture content in the plant drops below 20%. Respiration is the process of converting sugars in the plant to energy and this process causes heat to be released. It is important to wait to store hay in the barn only after respiration has stopped and the potential for fire is diminished.

Heat produced in 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 110 degrees F. Very little if any damage occurs if the hay never exceeds 110 F.; 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 120 degrees F., whereas, wetter hay can quickly exceed 150 degrees. Be wary of the fire danger of wet hay and store it away from buildings and other “good” hay just in case this would occur. Any hay bale that is less than 120 degrees is fine to stay in the barn, but a bale that is over 150 degrees should be removed to a cool area.

Heat damaged hay often turns a brownish color and has a caramel odor. Cattle often readily eat this hay, but because of the heat damage, its nutritional value might be quite low. Heat damage causes hay to be less digestible, especially the protein and even though eaten in large quantities will not provide adequate nutrition. Testing the protein and energy content of stored wet hay will allow for more appropriate supplementation next winter when that hay is fed. Also moldy hay could be a source of mycotoxins that could present several health problems for cattle.

How do you know when the hay is cool enough to store safely in the barn? Answer…Use a simple compost thermometer. You should monitor the temperature of several bales over time, and after the hay has stabilized and does not exceed 120 degrees after several probes, it is safe to place in the barn. Compost thermometers (20 inch probes) may be purchased for about $25.00. This could be a worthwhile investment, if it allows the producer to prevent a fire. Please call the local Extension Office for information on purchasing an appropriate thermometer.

Producers should work hard to prevent hay fires. Not only is there a loss of value from the burned hay, there is an additional cost to replace the hay that will be needed by the beef herd.

Agricultural Market Trends

Cattle Market Trends
Feeder steers, unevenly steady, $182.00-$375.00; Feeder heifers, steady to $2 higher, $175.00-$335.00; Slaughter cows, steady to $1 lower, $92.00-$115.50; Slaughter bulls, steady to $1 higher, $129.00-$149.50

**Grain Market Trends**

Soybeans and wheat were up and corn was mixed for the week. **Corn** – Cash price, $3.57-$3.87. July futures closed at $3.63, a bushel, was steady. **Soybeans** – Cash price, $9.58-$10.13. July futures closed at $9.76 a bushel, up 12 cents. **Wheat** – Cash price, $4.26-$4.33. July futures closed at $4.81 a bushel, up 7 cents.

For additional information on these and other topics, contact the UT Extension Office, 925 East Baddour Parkway, Lebanon, TN 37087, 615-444-9584 or acorrell@utk.edu. UT Extension provides equal opportunities in all programs. Visit the UT/TSU Extension webpage at http://utextension.tennessee.edu/wilson or look for UT & TSU Extension, Wilson County on Facebook.

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