

Livestock Feeding in Winter Conditions Requires Extra Energy

The title of this article may have you already vehemently nodding in agreement as you consider the extra labor involved in taking care of animals during winter months. Winter feeding does involve extra work for humankind. However, it may surprise you to know the title is actually referring to the need livestock have for increased energy consumption during cold winter weather.



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When nutrient requirements for animals are determined, they are determined in what is called a “thermoneutral” environment. Just as Goldilocks looked for “just right,” a thermoneutral environment is “just right” regarding its impact on animal nutrient demands.

As you well know, the world in which we live is NOT a thermoneutral world. Winter is the time of year when we see the biggest impact of environment on nutrient demands. The bottom line is cold weather increases animal needs for energy. Add wind to cold temperatures and energy needs increase dramatically. Add wind and wet conditions to cold temperatures, and you have an environment where it is likely energy needs cannot be completely met.

That’s why it is important to watch the weather forecast and feed extra energy before, during, and after a cold weather event. Although it’s too late to remedy now, it is important to have animals in a Body Condition Score (BCS) of 5 to 6 as they enter the cold weather season. If unfamiliar with the term Body Condition Score, it is simply a way of assessing the relative fatness or thinness of an animal. In cattle, a BCS of 5 to 6 is considered “just right.” Thinner than a BCS of 5 and they have no extra condition (think fat) to lose as winter begins. Remember: if energy needs are not met, animals lose weight.

What can be done? Provide the best quality hay you have during bad weather. In bad weather, hay won’t meet energy nutrient requirements alone, but the better the hay, the closer it comes. The heat generated in the rumen as microbes digest the hay aids in keeping animals warm. Supplementation with the hay will most likely be required to meet energy needs. Perhaps the most common supplement is corn. Corn is the seed head of a grass and is a perfectly acceptable (and natural) feedstuff for grazing animals. Corn grain is roughly 88% energy, so a little goes a long way. We recommend that corn not be fed in excess of 25% of their total intake per day, as more than that can upset the rumen microbial balance and make animals less efficient on forage.

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Since forages are the basis of any feeding program and hay is stored forage for winter feeding, hay testing provides the baseline information needed for informed and quality winter feeding. If you haven't already, please contact your local Extension office for hay testing. We'll be glad to assist and also work with you when the results are in, so that you can plan ahead to meet animal nutrient needs.

For more information regarding feeding livestock or to find out more about our winter training opportunities, please call your UT/TSU Extension office at 615-898-7710 office or visit our website at rutherford.tennessee.edu.