

## LIVESTOCK

# Cold increases nutrient requirements

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**First, we have a** tendency to balance winter rations for cows in two phases: non-lactating, in the middle third of pregnancy (dry); and then post-calving, in

peak lactation (wet). Using nutritional requirements for the average weight of the cow herd, it's simple to come up with two feeding regimes; one for before calving and one for after calving. The fact is that in the last third of pregnancy, when the fetus makes 75 percent of its growth, a cow's nutritional requirements increase enough that we need to pay closer attention. During this period, protein and energy needs increase about 40 percent and 20 percent, respectively. For a 1,200-pound cow, that's 0.4 pounds of additional protein and 1.75 pounds of additional energy (TDN). As a result, the ration that maintains weight of a dry cow during the first two-thirds of pregnancy results in weight loss during the last third. If you begin calving in March, it's time to up the supplement.

Second, it's time to plan for inclement weather – the unusually cold, often wet and windy kind that comes through several times each winter. A cow's maintenance requirements are pretty stable down to 32 degrees F.



That's her Lower Critical Temperature (LCT) in average body condition with a dry coat. That temperature is based on wind chill, not just ambient temperature. For each degree below 32 F, her energy requirements increase 1 percent. If her hair coat is wet, her LCT is 60 degrees F, and energy requirements go up **2 percent** for each degree below 60 F.

In cold, wet weather, it's possible for energy needs to increase 50 to 100 percent. Often, it's not safe or

practical to feed that much more. One alternative is to increase energy intake at lower amounts before, during and immediately after a winter weather event. Allowing access to man-made or natural shelter also can help change the wind chill temperature in our favor. Our whole objective is to maintain body condition score of at least 5.0 prior to, during and after calving so that the herd will cycle and conceive on time for the next "go-around." ■