

Feeding for cold weather

By David Cantrell

The major effect of cold on nutrient requirement of cows is increased need for energy. To determine magnitude of cold, lower critical temperature for beef cows must first be estimated. For cows with a dry winter hair coat the lower critical temperature is considered to be 32 degrees F. In general, researchers have used the rule of thumb that cows' energy requirements increase 1 percent for each degree the wind chill is below the 32° lower critical temperature. There-

fore the calculation example for a cow with a winter dry hair coat would be:

Step 1: Cow's lower critical temperature is 32 °F.

Step 2: Expected wind-chill from weather reports (let's use 4 degrees wind chill in this example)

Step 3: Calculate the magnitude of the cold: 32° - 4° = 28°

Step 4: Energy adjustment is 1 percent for each



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degree magnitude of cold or 28 percent.

Step 5: Feed cows 128 percent of daily energy amount. (if cow was to receive 16 pounds of high quality

grass/legume hay; then feed 20.5 pounds of hay during the cold weather event).

Research has indicated that energy requirement for maintenance of beef cows with a wet hair coat is much greater. Cows that

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