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## Winter Water

There have been some really cold mornings lately, which has caused me to chop holes in the ice on ponds in the pasture where I'm making cows clean up some stockpiled grass. I could spend time discussing my disdain for watering out of ponds (especially in winter) and the reasons why other water systems are a better choice that I need to get put in place, but rather the focus today will be on the water itself. Summer is often the time when discussion revolves around water needs for livestock, as it should, but water is equally important in the winter months as well.

Feeding and supplementation strategies, along with body condition maintenance are often news topics for winter time, but one sometimes overlooked topic during cold weather is water. Dehydration can be an additional stressor for livestock during periods of cold weather. Ensuring that adequate water is provided in the cold will also help insure that supplemental feeding and health of livestock can be optimized as well. So, how do we know how much water livestock really need during cold weather?

The current National Research Council concludes that average daily ambient temperatures below 40 degrees Fahrenheit do not significantly influence water intake, but there is a linear increase in intake as temperature exceeds 40 degrees. Water needs by class of livestock; body weight and stage of production varies. A good publication to look at these values and other water related issues is North Dakota State University's [AS1763 "Livestock Water Requirements"](#).

So how much water is needed in winter? For example, at 40 degrees, a 900-pound pregnant cow will consume 6.7 gallons a day, but the same lactating 900-pound cow will consume 11.4 gallons. Water requirement guidelines listed in the K-State publication "[Estimating Water Requirements for Mature Beef Cows](#)" [MF3303](#) shows a 1300 pound cow experiencing 40°F require approximately 9-15 gallons of water daily. The lower end would apply to open or pregnant, non-lactating cows while the upper limits apply to lactating cows. Point being, water requirements change and it is critical to watch and make sure water supply is adequate at all times.

Temperature and nutritional energy requirements are inverse to each other as animals reach their lower critical temperature. When air temperature falls below 32 degrees there is an increased need for additional energy. This extra energy for ruminants often comes in the form of dry feeds such as hay, byproduct cubes, or commodity blends, often with dry grains. Water is essential to the digestion process for these dry feeds and limiting water will compromise feed intake, making it hard to maintain body condition. Be aware of this water needs as the diet dry matter content increases.

Don't forget about delivery of water in winter as well. Immature or smaller animals may not be able to break through ice on natural water sources, reach water in low or frozen tanks or be able to push down floats or other covering devices in automatic waterer systems. This is especially true if these animals are not receiving milk from mother and are relying on external water sources for hydration. A final point is that animals can eat snow to meet water requirements, but it comes with additional energy demand. Research done in more northern climates shows that cows will consume 30 to 40 pounds of snow a day to meet water requirements. Don't forget about the importance of water this winter.