



Can Cows Eat Snow?

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When winter hits and temperatures drop below freezing it becomes harder to keep a fresh water supply for cattle grazing on the range. Some areas are difficult to access for cutting ice to open reservoirs or hauling tanks of water.

The question is often asked: Can cows eat snow in the winter time to supply them with all of their water needs? The answer is yes. There are many situations where cattle can survive on snow without having any other water supply. Ranches throughout the West and Midwest that have cattle using sizeable pastures with few or no water resources depend entirely on snow for winter grazing.

Just turning cattle loose on the snow sounds like a very simple management technique, but it requires that ranchers pay very close attention to the animal's body condition and general health. Research over several studies has shown that there is no reason to expect cattle performance to deteriorate when animals are using snow for water. Young, Tennessen, and Degen (1980) found that cows using snow for water showed no difference in live weight or in the amount of body fat compared to cows receiving live water.

Another study evaluated the effects of snow feeding on milk yield and calf growth. A group of pregnant beef cows were provided only snow as a water source. A similar group of cattle were given access to heated water. The cows eating snow would consume between 30 and 40 pounds of snow per day to meet their water needs. The cows that had

access to water would drink 2 to 3 gallons, but then would also eat 7 to 25 pounds of snow. In the end there was no statistical difference in average milk yield or body weight between the two groups of cattle or the calves they produced (Degen and Young, 1990).

Research in Montana showed that when cattle are exposed to both water and snow, 2 percent of the cows never drank water, and only 65 percent drank water every day. The other 33 percent drank only every second or third day while eating snow the rest of the time. There was no visible difference in the appearance of any of the animals (Adams, Knapp, Richardson, and Lamb, 1995).

When using snow as the only water source several points should be considered:

- Thin cattle (Body Condition Score of 3 or less) should not be forced to depend only on snow. Cattle should have at least a BCS of 4 and should be in good health.
- An alternate water source must be available in case conditions change and there is not enough snow to support the herd.
- Available snow must be clean and accessible. Ice crusted, wind-blown, or trampled snow is not sufficient. It takes approximately 4 inches of snow to get a half inch of water.
- Make sure that feed intake does not go down. A mature cow will eat 2.5 percent of her body weight on a daily basis. Reduction in feed intake may mean that there is not sufficient water intake.

- Eating snow is a learned behavior. It can take some cows 4 or 5 days to learn the technique. It is always best to put inexperienced cows with herd mates that have been on snow before.

Conclusion

Cows can survive and do very well using only snow as their source for water. Ranchers can use pastures with no live water, increase the length of the grazing season in some areas, and save money by not having to provide live water sources during times of snowfall. It is imperative, however, to monitor the feed intake and the body condition score of the cows.

References

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