

Fall Drought Management Strategies

Tough decisions now can lay the foundation for future success.

by *Lee-Anne Walter, Ph.D.*

Drought across the Northern and Western United States and western Canadian provinces has devastated range, pastures, hay fields and dry land row crops. Long-term sustainability dictates short-term adoption of aggressive management practices. Strategies to reduce winter feed costs while maintaining cow body condition should be a paramount focus. Maintaining a sound herd health program, aggressively culling cows and bulls, and weaning calves early can help reduce winter feed costs.

Herd health saves and pays

Effective herd health includes working with a veterinarian to employ a comprehensive vaccination program, pregnancy confirmation, evaluating body condition scores (BCS) in the cow herd and conducting soundness appraisals of heifers and cows.

Treatment for external and internal parasite control can be done in the fall. This can improve health and feed efficiency, which saves considerable dollars and feed resources. Dewormers have been shown to improve pregnancy rate and weaning weight. In one widely regarded economic analysis¹, dewormers — compared to other animal health technologies — had the largest impact on beef cow profitability.

Sort wasted opportunity

Culling cows post-weaning should be based upon breeding status (not just pregnant or open but also whether due early or late), past dystocia issues, current body condition, udder conformation soundness, and age. In times of drought and fewer winter feed stocks, early culling preserves feed resources for the remainder of the herd. Even in the face of increased cow slaughter³ and steady cutout prices this year, cull cows earned modest revenue due to increasing demand for lean trim.

Early culling can also benefit the bottom line when feed is more plentiful, allowing more time to add pounds and body condition with supplemental feeding. Besides having more pounds to sell, this practice delays marketing until cow prices are seasonally higher. It can also shift cattle to higher value classifications². For instance, transitioning intermediate conditioned boner cows (BCS ~4 or 5) to well-conditioned breakers (BCS ~7 or 8) or poor conditioned lean cows (BCS ~1, 2 or 3) to boner classification.

Preserve feed and maintain body condition

Going forward, the focus needs to be on preserving feed resources and maintaining body condition of the retained cow herd.

¹Lawrence, J. D., and M. A. Ibarburu. 2007. Economic Analysis of Pharmaceutical Technologies in Modern Beef Production. Proceedings of the NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Chicago, IL.

²USDA AMS, 2021. <https://www.ams.usda.gov/market-news/custom-reports>. Data accessed Sept. 6, 2021.

³Apple, J. K., Davis, J. C., Stephenson, J., Hankins, J. E., Davis, J. R. and Beaty, S. L. 1999. Influence of Body Condition Score on Carcass Characteristics and Subprimal Yield from Cull Beef Cows. *J. Anim. Sci.* 77: 2660-2669.

⁴Hilton, W. M. Nutritional Management. 2015. Management and Nutrition – Merck Vet Manual.

⁵Selk, G. E., Wettemann, R. P., Lusby, K. S., Oltjen, J. W., Mobley, S. L., Rasby, R. J. and Garmendia, J. C. Relationships among weight change, body condition and reproductive performance of range beef cows. 1988. *J. Anim. Sci.* 66: 3152-3159.

⁶Wagner, J.J., Lusby, K. S., Oltjen, J. W., Rakestraw, J. 1998. Carcass composition in mature Hereford cows: estimation and effect on daily metabolizable energy requirement during winter. *J. Anim. Sci.* 66: 603-612.3

⁷National Academies of Sciences, Engineering, and Medicine. 2016. Nutrient Requirements of Beef Cattle: Eighth Revised Edition. The National Academies Press, Washington, DC.

⁸Wiseman, A., Redden, M., McGee, A., Spencer, C., Reuter, R., Horn, G. and Lalman, D. 2019. Effects of timing of weaning on energy utilization in primiparous beef cows and post-weaning performance of their progeny. *J. Anim. Sci.* 97: 1198-1211..

BCS is an effective, indirect measurement of energy stores. Cows' highest energy needs occur in the third trimester of pregnancy and post-calving. Estimates suggest 100 pounds of tissue weight gain is required to increase a full BCS⁴. Maintaining body condition of cows at a 5, 6 or 7 helps ensure a shorter time from calving to first estrus and a greater pregnancy rate⁵.

In one two-year study, researchers⁶ observed cows with a higher BCS had lower maintenance energy needs during the winter, illustrating the importance of a moderate body condition score. Study results could also be extrapolated to underscore the importance of shelter and/or bedding to minimize the effect of winter on energy requirements of the cow herd. Maintenance energy requirement was 12% higher during the second winter of the study due to colder daily temperatures.

Since the length of the current drought is unknown, it may be prudent to cull a greater percentage of the herd now to preserve additional feed for the remainder of the herd, ensuring greater future reproductive success of the cow herd.

Early weaning reduces energy demand

Undoubtedly, some producers weaned early in drought areas. Moving weaning forward by four to eight weeks can ensure more reserves for the dams by preserving energy stores from lactation demands. Lactation can equal an additional 20% of maintenance energy requirements for cows⁷.

A recent study⁸ focused on first-calf heifers and early weaning. Calves were weaned at 226 days in the traditional weaning group. Calves were weaned at 130 days in the early weaning group.

Researchers limited intake so that each group of first-calf heifers was fed to maintain body weight, resulting in first-calf heifers with early-weaned calves consuming 34% less feed compared to the first-calf heifers with calves weaned at 226 days. Researchers found no difference in cow body weight or body condition score between the early weaning and traditional weaning groups — due to limiting intake to maintenance — but they did observe a numerically higher pregnancy rate for early-weaned first calf heifers in addition to the decrease in feed intake.

Drought necessitates adopting difficult management decisions. However, making changes in the fall, before winter, can ensure greater preservation of feed resources and cow body condition. Improving the herd energy balance through a combination of herd health programs, early weaning and additional culling can result in improved future reproductive success of the cow herd. **HW**

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