

Health & Husbandry

Transition your herd from good to exceptional.

by Brad White, Kansas State University Beef Cattle Institute



Cow-calf operations with multiple areas for improvement can make changes and

visualize positive effects in the short term. However, for cow-calf ranches with good production parameters, taking the next step to move to exceptional can be challenging.

One barrier in moving to exceptional production is diminishing returns. In other words, improving efficiency needs to be completed without adding more cost than potential benefit. To move from good to exceptional, the ranch needs to have an outcome metric to monitor success, decide on an area to target for improvement and identify specific action steps.

The right metric

Measuring cow-calf output in a consistent manner is important to track improvement. In a previous article (see “Is your herd healthy? Check the dashboard,” Feb. 2020, page 38), we discussed using the *number* of calves weaned per cow exposed to breeding as a metric to evaluate herd performance. A more precise metric for measuring herd improvement over time would be *pounds* (lb.) of calf weaned per cow exposed to breeding.

This measurement requires few records to create an annual herd performance gauge. The total pounds of calves weaned (including calves sold and any replacement heifers saved for the herd) is divided by the number of

cows exposed for breeding during the breeding season when these calves were conceived. The number of cows can easily be calculated by adding the number of culled/deceased cows during the previous 18 months to the current cow inventory.

Pounds weaned per cow exposed is a great metric for comparing herd performance over time, and the measure approximates the relationship between income (pounds of calf weaned) and expenses (number of cows representing the primary driver of variable costs).

For herds starting with good reproduction numbers (90%-95% pregnant) and low calf mortality (less than 2%), improving this metric is highly influenced by changing the overall herd weaning weight. Multiple methods exist to increase average herd weaning weight, and we will focus on creating a front-end loaded calving herd.

Front-end loaded?

Front-end loading the calving season can be simply defined as having 65% or more of the herd calving in the first 21 days of the calving season. Early calving is important, as age is one of the major drivers of weaning weight. A baseline of good genetics and a

solid nutrition program are critical. However, older calves in the herd will have more opportunity to express their genetics and typically weigh more by weaning compared to younger calves.

Prior to weaning, calves gain approximately 2.25 lb. per head per day. Thus, a calf born the first day of a 70-day calving season would weigh approximately 150 lb. more at weaning compared to a calf born the last day of the season. Moving more of the herd earlier in the season improves the herd weaning weight, but this move must be accomplished in an economically efficient manner.

Changing momentum

Creating an exceptional herd based on increasing front-end loading of the calving season can be accomplished with relatively low economic inputs, but the transition will take time. Assuming the calving season currently matches forage and labor resources, the breeding season start date can rarely be moved.

Cows have a postpartum interval when breeding is unlikely to occur. While some programs can slightly modify this response, most cows will calve at about the same time annually. This effect creates herd momentum in that, over time, the herd tends to have the same calving pattern as previous years unless there is a specific shock to the system.

Transitioning to a front-end-loaded herd is based on two main ideas:

- ▶ targeted attrition, and
- ▶ focused replacement-heifer management.

Decisions for culling mature cows are often based on pregnancy status or calf performance. Targeted attrition focuses on maintaining early-calving cows while allowing cows that calve later to leave the herd.

When herd contraction occurs, this is a good time to remove late-calving cows.

Replacement-heifer management is the key to building and maintaining long-term front-end loading. For example, heifers should be raised in a manner to have their second calf in the first 21 days of the calving season. This approach will take several years to bear fruit, but the overall cost of changing to front-end loading may not differ greatly from current production costs.

Conclusions

Moving cow-calf herds from good to exceptional can be challenging, and a consistent metric must be used to measure progress. The pounds weaned per cow exposed to breeding is a great in-herd metric to evaluate changes in performance from year to year. The pounds-weaned metric can be improved by focusing on front-end loading the calving season through early-calving replacement heifers and targeted attrition of late-calving cows. **ABB**

Author Brad White is on faculty at Kansas State University College of Veterinary medicine and serves as director of the Beef Cattle Institute. To learn more on this and other beef herd health topics, tune in to the weekly Beef Cattle Institute *Cattle Chat* and *Bovine Science with BCI* podcasts available on iTunes, GooglePlay or directly from www.ksubci.org.

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