

Defined Breeding Season

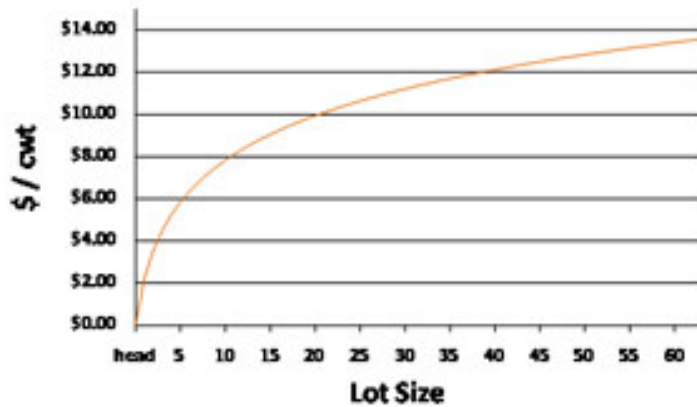
Having a defined breeding season and thereby a defined calving season allows producers to devote more attention to cows during calving, a critical time in the production process when adverse events can dramatically affect production. A defined calving season helps to improve production efficiency. In Other advantages of a defined, short calving season include uniform lots of calves, improved herd health management, cow nutrition, and culling and selection of replacement heifers. In USDA (2009) survey 54.5% of the beef cattle operations accounting for 34.1% of all the beef cows did not have a set calving season.

University of Arkansas research evaluated the effects of reducing the length of the calving season from more than 200 days to less than 90 days by working with six cooperator cow-calf operations. A specific plan was designed for each cow herd that included such management practices as supplement and mineral feeding, bull breeding soundness examinations, and other management factors that could affect reproduction rates. Results were reported in a 2009 Arkansas Animal Science Department Research report. The average calving season length of the six cow herds was reduced from 273 to 85 days in an average of 3-4 years. The percentage of cows calving during the desired calving season increased from 46.3 to 92%. The mature cow calving percentage did not change from the first year to the final year. The herd breakeven cost decreased from \$0.61/lb to \$0.43/lb over the study which caused the income per animal unit (1000 lb cow) to increase from \$95.00 to \$189.70. Even though these differences in cost and income were not statistically significant, they were financially relevant to the cooperator.

A 2005 research analysis of 394 ranch observations from a standardized performance analysis (SPA) data set (from Oklahoma, Texas and New Mexico) supports the findings from this Arkansas study. In this SPA data set, the length of the breeding season ranged from 11 to 365 days with an average of 133 days. This analysis suggested that for each day the breeding season was lengthened, the annual cost of producing 100 lbs of weaned calf increased by 4.7 cents and pounds of calf weaned per exposed female decreased by .158 lb. Applying these values to the Arkansas data suggest that reducing the calving season from 273 days to 85 days reduces the cost of production by \$8.83/cwt of weaned calf and increase the pounds of calf weaned per exposed cow nearly 30 lbs. Values would be even greater using today's prices.

Shortening the breeding season and calving seasons will pay off in heavier, and more uniform groups of calves to sell at weaning time. If a cow operation can market a sizeable number of calves together in one lot, they will realize a greater price per pound (on the average) than similar calves sold in singles or small lots. Proof of this concept is presented here in data from the Oklahoma Quality Beef Network sales in 2010.

Lot Size Premium at 2010 OQBN Sales



Small cow calf operations can take advantage of these price differentials only by achieving a defined short breeding season so that the calves born in a short period of time are of similar age and weight at sale time.

The optimum length of breeding season will vary from operation to operation, but the data supports a shorter breeding season. These data clearly illustrate that reducing the length of the calving season is one of the most important and cost-effective practices that producers can implement.

Management Questions to Consider

What is the length of my breeding season?

Do I have a defined breeding season?

How many different sizes of calves do I have in my cowherd?

What is my cost of production for 100 pounds of calf?

Do my cows fit my environment and resources?

What management practices do I need to implement to reduce my calving season?

What is the average lot size for the calves I sell?

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