

COOPERATIVE EXTENSION



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When you support Extension, beef cow-calf operators adopt breeding, nutrition and health practices that increase revenue by approximately \$5,000 per farm.



Estrus Synchronization and Artificial Insemination (ESI) are shown to improve both reproductive efficiency and production efficiency.

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Eastern Kentucky Integrated Reproduction Management Program Controls and Shortens Calving Season

The University of Kentucky Extension Beef Integrated Farm Management Program, developed by a multi-disciplinary team of Animal Science specialists, is five to seven-year study on the impact of controlling reproduction in cattle.



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Of the twenty-one farms with extended calving seasons, adoption of the recommended practices increased pregnancy rates by 14% and provided an additional \$37,368 in revenue. The return-on-investment was approximately \$6,000 per farm.

Kentucky Extension Reporting System, 2016

Eighty-two beef cattle operations participated in the East Kentucky Integrated Reproduction Management project (Beef IRM). The operations were grouped by length of calving season and desire to improve productivity using estrous synchronization and artificial insemination. Individual production plans were written for each operation. A simple, electronic record-keeping system was developed to aid operators with implementation and determine impact of changes in the management system. The individual plans included: routine vaccinations, deworming, hay analysis, ration balancing, use of quality minerals, and developing a genetic and reproductive plan.

Forty-seven percent of the beef operations had no control of their breeding system. Operations reduced the days in calving season by developing a single or dual (spring and fall) calving seasons, and improved pregnancy rates by 12% or 100 additional calves valued at \$99,000. The estimated return-on-investment for this group of operators was approximately \$4,000.

Of the twenty-one operations with extended calving seasons, adoption of recommendations resulted in a 14% improved pregnancy rate which equates to 77 additional calves (42,350 pounds) at a value of \$84,700. By controlling the calving seasons, the return-on-investment was \$5,811 per operation.

Estrus Synchronization and AI (ESAI) are tools that have been available to cattlemen for years. Use of these tools have been shown to improve both reproductive efficiency and production efficiency. Use of these tools has been limited mainly because cattlemen do not understand the impact using these tools can have on the



Two farms had an increased revenue of \$66,690 due to more calves that weigh more.



reproduction and production impact of their operation. It takes about 10 years to realize the benefits of using ESAI. More data will be collected over the next several years to further validate these initial results through the Beef IRM Program and the improvement to beef cow-calf operations. This project received funding from the Governor's Office of Agriculture Policy through the Kentucky Beef Network.

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