

EFFECTS OF ANGUS SIRE BREEDING METHOD TO PREDOMINATELY ANGUS COWS ON STEER OFFSPRING GROWTH PERFORMANCE AND CARCASS TRAITS

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I. OBJECTIVES

The study objective was to determine the effect of breeding method (bull or artificial insemination) on steer offspring performance and carcass traits.

II. MATERIALS AND METHODS

Over 6 y, 244 fall-calving, mixed-aged Angus and Angus-crossbred cows were bred by either bull or artificial insemination with Angus sires. Cattle were housed with access to pasture at the University of Arkansas' beef unit. At birth, cattle were processed and weaned early to middle of May. Steers grazed at the University farm for 2 mo before being transported to West Texas A&M research feedlot, located in Canyon, Texas, and remained there until harvest. Steers were harvested when backfat thickness reached a minimum of 1.0 cm. Steers were transported to a meat processing plant in Friona, Texas, for harvest. Carcass data were collected at the processing plant for analysis. For analysis and results, steers bred from bulls were referred to as B steers, and steers bred from artificial insemination were referred to as AI steers.

III. RESULTS

B steers had greater birth weight ($P < 0.05$) and adjusted weaning weight ($P < 0.05$) than AI steers. The hot carcass weight of AI steers was greater ($P < 0.05$) than B steers. The ribeye area, yield grade, backfat thickness, and marbling number were not affected ($P < 0.05$) by breeding methods. B steers had a shorter ($P < 0.05$) time to harvest than AI steers.

IV. CONCLUSION

Breeding method affected growth and carcass performance but not carcass quality.

Keywords: breeding, carcass characteristics, growth performance