

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## EARLY CALVING ON THE PRODUCTIVE EFFICIENCY OF PRIMIPAROUS ANGUS AT 24 MONTHS OF AGE

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Cattle breeding in recent years have undergone little progress in its productivity indexes, demonstrating the real need of improvement in order to maintain the activity. Repetition of pregnancy in primiparous cows is a problem for the productive systems, regardless whether the birth is at 24 or 36 months. The objective of this study was to verify the effect of two calving periods during the calving season (early and late – September and October) on the efficiency of 54 primiparous Red Angus cows at 24 months of age. All cows were kept on natural pastures before calving and on cultivated pastures of *Lotus corniculatus* and *Lolium multiflorum* after calving. Fixed-time artificial insemination was used, with two protocols and interval of 30-day. Pregnancy diagnosis was performed 30 days after each protocol. For the herd productivity and breeding efficiency of the cows, the total weights and of body weight gains of calves at weaning, individually or for the cow-calf set, were considered. The efficiency of calf production was determined by the adjusted calf production index according to the pregnancy rate in kg of calves weaned per cow retained (calf weight at conventional weaning \* pregnancy rate / 100). The productive efficiencies at calving and weaning were determined, as a function of calf weights versus calf weights on the same dates. Calves from early calving cows presented higher daily weight gain, and were heavier at weaning when compared to later calving cows, resulting in higher cow-calf gains during the lactation ( $0.721 \pm 0.030$  vs  $0.699 \pm 0.032$  kg). The reproductive performance was higher for the early calving cows in both synchronizations, and in the total pregnancy rate (86.2 vs 52.0%). Early calving cows had a higher calf production rate ( $161.5 \pm 3.2$  vs  $92.5 \pm 3.5$  kg), calf by kg of cow at weaning ( $40.9 \pm 0.97$  vs  $23.7 \pm 1.04$  kg), and productive efficiency in the calving ( $34.3 \pm 1.25$  vs  $20.8 \pm 1.35$  kg). Early calving cows are more efficient in production of kg of calves by kg of cows at calving and at weaning, and when associated the kg produced and the subsequent pregnancy, presented a higher calf production rate.

**Keywords:** Index of calf production, Pregnancy, Red Angus, Weight gain

Promoção e Realização:



Apoio Institucional:



Organização:

