

The effects of different timing of artificial insemination, the association of uterine tone and site of semen deposition on pregnancy rate following oestrus synchronisation in beef cattle

ABSTRACT

The pregnancy rate following induced ovulation at different timing of artificial insemination (TAI), and the association of uterine horn tone and site of semen deposition on pregnancy rate in Kedah-Kelantan (KK) and crossbred beef cows were studied. The cows were divided into three groups, each artificially inseminated either at 56 h, 65 h or 72 h following the removal of controlled internal drug release devices (CIDR®). The uterine tone was evaluated on a 4-point scale and pregnancy diagnosis was performed through rectal palpation. The percentage of cows that exhibited oestrus was not significantly different ($p > 0.05$) between the groups studied. Group S56, S65 and S72 exhibited oestrus rates of 75, 73.7 and 70% respectively. Group S56 had a higher pregnancy rate compared to the other two groups. A total of 49.2, 37.3 and 13.6% cows were observed to have intermediate, extreme and slight condition of uterine tone respectively. The correlation coefficient indicates no relationship exists between TAI and the site of semen deposition, and pregnancy rate. However, a negative correlation exists between TAI and uterine tone condition. Thus, TAI can be performed between 56 h and 72 h after CIDR® removal, and uterine tone can be as indicator on the success of AI to pregnancy rate in KK and crossbred cows.

Keyword: Beef cows; Uterine tone; Semen deposition; Timed artificial insemination; Pregnancy rate