

Ovarian follicular wave patterns, oestrus interval and ovulation rate in oestrus synchronised Kedah-Kelantan cows

ABSTRACT

The relationship between 2- and 3-follicular wave patterns on progesterone hormone profiles, oestrus interval, ovulation time and pregnancy rate in Kedah- Kelantan (KK) cows were studied. A total of 30 primiparous and multiparous KK cows were inserted intravaginally with controlled internal drug releasing device (CIDR®) for 7 days, followed by intramuscular injection of 25 mg prostaglandin 2 days prior to CIDR® removal. The study indicated that the oestrus cycle length and proportion of pregnant cows were not significantly different between the 2- and 3-follicular wave patterns. However, follicle emergence in the 3-wave pattern was 4.1 days later than the 2-wave pattern while the dominant follicle in the 3-wave pattern took 4.3 days earlier to achieve the maximum diameter. The dominant follicle took a respective 6.4 and 5.4 days for 2-and 3-wave patterns to become dominant at days 9.8 and 9.5 respectively. The progesterone concentration at the time of emergence of the first dominant follicle (DF) was lower in 3-wave pattern compared to 2-wave pattern. Oestrus intervals, ovulation time and pregnancy rates were not significantly correlated in the 2- and 3-wave patterns. There was no relationship between ovarian follicular wave patterns, ovulation time and pregnancy rates during the oestrus cycle in synchronised KK cows.

Keyword: Kedah-Kelantan cows; Follicular development; Follicular wave; Oestrus synchronisation; Pregnancy rate; Ovulation time