

# Fertility in dairy cows subjected to two different intervals from presynchronization to initiation of Ovsynch protocol

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A protocol for presynchronization with two treatments of PGF<sub>2</sub> $\alpha$  (PG) 14 d apart with last PG 12 d before Ovsynch increases pregnancy per timed-AI (P/TAI) in dairy cows. We determined the efficacy of reducing the interval from last PG of presynchronization to initiation of Ovsynch on response to treatment and P/TAI. Lactating dairy cows were assigned to receive an Ovsynch protocol with the first injection of GnRH 9 (PRE9; n=132) or 12 d (PRE12; n=132) after the second PG (500  $\mu$ g cloprostenol; Estrumate, Schering Plough Animal Health) of presynchronization. The Ovsynch protocol consisted of two injections of 100  $\mu$ g GnRH (Fertiline; Vetoquinol Canada Inc.) 9 d apart and one injection of PG 7 d after the first GnRH. Cows were TAI (70  $\pm$  3.5 DIM) ~16 h after second GnRH. Body condition (BCS, 1-5 scale) was recorded at TAI. Ultrasonographic examinations were done in all cows at second PG of presynchronization, first GnRH, PGF of Ovsynch, at TAI and 24 h after TAI for response to treatment and at 32 and 60 d after TAI for confirmation of pregnancy. The percentage of cows responding to first GnRH (64.4%), having double ovulation after second GnRH (11.4%), and responding to PG and ovulating after TAI (80.3%) did not differ between PRE9 and PRE12. Similarly, BCS at TAI (2.9  $\pm$  0.02) and ovulatory follicle diameter (16.5  $\pm$  0.2 mm) were not different between treatments. However, cows in the PRE12 group tended to have greater P/TAI at 32 and 60 d after TAI than that in those cows in the PRE9 group (P=0.1 and 0.08; 43.9 and 42.4% versus 34.8 and 32.6%, respectively).

**Take Home Message:** Reducing the interval from last PG of presynchronization to initiation of Ovsynch from 12 to 9 d did not affect the response to Ovsynch protocol but reduced the P/TAI at 32 and 60 d after TAI.

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