

Conception Rates to Timed A.I. and to A.I. at Detected Estrus

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Take Home Message: In this study, conception rate to Ovsynch/timed A.I. was comparable to that of A.I. at detected estrus.

Insemination records of a dairy herd were analyzed retrospectively over a period of three years to compare conception rates to timed insemination (TAI) after synchronization of ovulation (Ovsynch) and to insemination at detected estrus (IDE). Cows were housed in tie-stalls and fed a total mixed ration *ad libitum* once daily. The base diet constituted of barley silage or alfalfa silage, alfalfa hay, and barley grain. Diet ingredients and rations varied over the period of the study. Cows were weighed and condition-scored once a month. Cows were allowed access to an exercise area two to three times a day, for about 30 min each period. The Ovsynch protocol involved gonadotropin releasing hormone (GnRH*) given on Tuesday (Day 0) afternoon, prostaglandin F2 ν (PG**) given next Tuesday (Day 7) afternoon, a second injection of GnRH given Thursday (Day 9) afternoon, followed by TAI approximately 16 h later, i.e. on Friday morning (Day 10). Any cow showing signs of estrus was inseminated by the a.m.- p.m. rule, or if detected in standing estrus, bred immediately. If a cow assigned to Ovsynch/TAI protocol was observed in estrus, she was bred at estrus and any remaining treatments of the protocol were discontinued.

The average body weight and body condition score were 628 ν 74 kg and 2.8 ν 0.4, respectively. Less than 10% of the cows had a body condition score lower than 2.5; likewise, less than 10% of the cows received a condition score equal to or greater than 3.5. Mean (ν sd) lactation, days in milk at A.I., and number of inseminations averaged 2.5 ν 1.6, 126 ν 67 d, and 2.2 ν 1.5, respectively. The herd had a production average of about 32 kg milk/cow/day.

A total of 970 inseminations were recorded, of which 750 were TAI and 220 IDE. The overall conception rate to TAI and IDE were 33% and 39%, respectively (P=0.11). Neither body condition nor lactation number influenced the conception rate.

* GnRH product used was either Fertiline (Vetoquinol N-A Inc.) or Cystorelin (Merial Canada)

** PG product used was either Estrumate (Schering Canada) or Lutalyse (Pharmacia Animal Health)