

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

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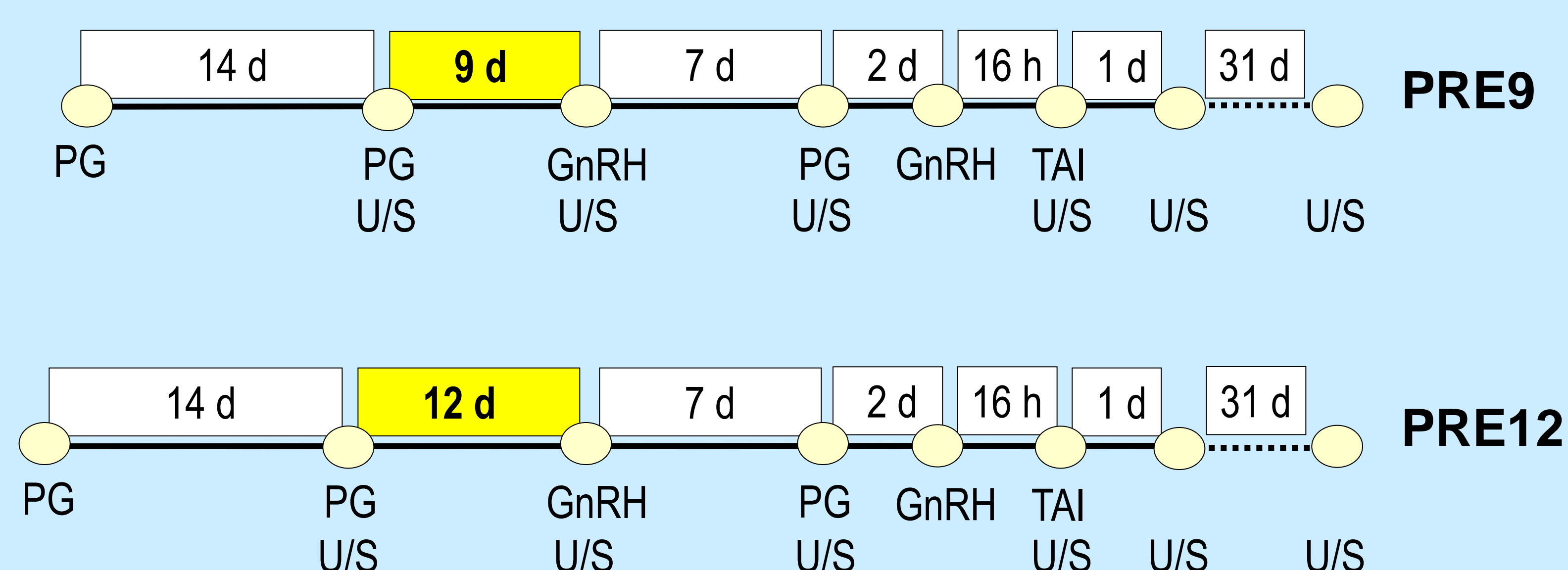
Objective:

To compare pregnancy rate in dairy cows subjected to two different intervals (9 vs. 12 d) from presynchronization with PG to initiation of Ovsynch/TAI protocol.

Animals and experimental design

- Lactating Holstein cows (n = 264) were 70 ± 3.5 DIM at TAI with a BCS of 2.9 ± 0.02 .
- Ultrasonography (U/S) to determine cyclicity, ovarian dynamics, ovulation and pregnancy.

Fig 1. Presynch/Ovsynch/TAI protocols



GnRH = 100 µg im (Fertiline; Vetoquinol Canada Inc)
PG = 500 µg cloprostenol im (Estrumate, Schering Plough Animal Health)
TAI = timed artificial insemination
U/S = ultrasonography

Findings:

The percentage of cycling cows at initiation of the Ovsynch/TAI protocol did not differ between protocols (overall 91.3%).

Findings continued:

Results between both TAI protocols are shown in Table 1.

Table 1. Mean days in milk (DIM) at first and second PG, percentage of cow responding to first and second GnRH, and PG treatment, mean diameter of preovulatory follicle (POF), and percentage of cow pregnant at 32 and 60 d, displayed by protocols.

	PRE9	PRE12	P value
DIM at 1 st PG	36.4	33.6	NS
DIM at 2 nd PG	50.4	47.6	NS
Ov. response to 1 st GnRH (%)	64.4	64.4	NS
Ov. response to 2 nd GnRH (%)	91.0	90.0	NS
Responding to PG (%)*	91.0	93.2	NS
POF diameter (mm)	16.5 ± 0.2	16.2 ± 0.2	NS
Pregnancy (%) at 32 d	34.8	43.9	0.1
Pregnancy (%) at 60 d	32.6	42.4	0.08

*Based on ultrasonographic examinations
NS = Non significant differences between protocols

Take Home Message

Reducing the interval from last PG of presynchronization to initiation of Ovsynch from 12 to 9 d did not affect response to Ovsynch/TAI protocol but reduced pregnancy rate at 32 and 60 d after TAI.

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